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

ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
GENERAL CHEMISTRY
METALS
GC SEMI-VOLATILES
SEMI-VOLATILE ORGANICS

PROJECT NAME : NYCDDC SANTWOBR BROOKLYN BRIDGE BBMCR

RU2 ENGINEERING, LLC

2 Melinda Drive

Monroe Township, NJ - 08831

Phone No: 732-261-2236

ORDER ID : Q1232

ATTENTION : Rutu Manani

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1232

Project ID : NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Client : RU2 Engineering, LLC

Lab Sample Number	Client Sample Number
Q1232-01	JPP-46.2-012925
Q1232-02	JPP-46.2-012925
Q1232-03	JPP-46.2-012925
Q1232-04	JPP-46.2-012925
Q1232-05	JPP-46.1-012925
Q1232-06	JPP-46.1-012925
Q1232-07	JPP-46.1-012925
Q1232-08	JPP-46.1-012925
Q1232-09	JPP-42.1-012925
Q1232-10	JPP-42.1-012925
Q1232-11	JPP-42.1-012925
Q1232-12	JPP-42.1-012925
Q1232-13	JPP-42.2-012925
Q1232-14	JPP-42.2-012925
Q1232-15	JPP-42.2-012925
Q1232-16	JPP-42.2-012925
Q1232-17	JPP-51.1-012925
Q1232-18	JPP-51.1-012925
Q1232-19	JPP-51.1-012925
Q1232-20	JPP-51.1-012925

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. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____ Date: 2/13/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for VOCMS Group1.

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 VOCMS Group1 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.

The RPD for {VY0204SBSD01} with File ID: VY021049.D met criteria except for 1,2-Dibromo-3-Chloropropane[25%], Acetone[23%] and Tert butyl alcohol[21%] due to difference in results of BS and BSD.

The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
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.

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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 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.

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.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: TCLP VOA

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. 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 performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe 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 met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
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.

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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.

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

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.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: Gasoline Range Organics

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for Gasoline Range Organics.

C. Analytical Techniques:
The analysis performed on instrument FID_B were done using GC column RTX502.2 which is 60 meters, 0.53mm ID, 3.0 um df, cat#10909.The analysis of Gasoline Range Organics was based on method 8015D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
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

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: SVOC-TCL BNA -20

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for SVOC-TCL BNA -20.

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 dfThe 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 met the acceptable criteria except for JPP-42.1-012925 [2,4 and6-Tribromophenol - 9%]as per method one surrogate is allowed to fail therefore no corrective action taken.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.

The MS {Q1239-10MS} with File ID: BF141345.D recoveries met the requirements for all compounds except for 2-Chlorophenol[75%], Acenaphthylene[78%], Isophorone[75%] and Naphthalene[71%] due to matrix interference.

The MSD {Q1239-10MSD} with File ID: BF141346.D recoveries met the acceptable requirements except for Benzaldehyde[92%] due to matrix interference.

The RPD for {Q1239-10MSD} with File ID: BF141346.D met criteria except for Benzo(k)fluoranthene[22%] due to difference in results of MS and MSD.

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The Blank Spike for {PB166418BS} with File ID: BF141441.D met requirements for all samples except for Acetophenone[100%], Hexachlorocyclopentadiene[191%] but no positive hits in associated samples therefore no corrective action taken.

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID BF141336.D met the requirements except for 4-Nitrophenol and Pentachlorophenol but associated QC within limits therefore no corrective action taken.

The Continuous Calibration File ID BF141410.D met the requirements except for 4,6-Dinitro-2-methylphenol but no positive hit in associated sample therefore no corrective action taken.

The Continuous Calibration File ID BF141531.D met the requirements except for Di-n-octyl phthalate but no positive hit in associated sample therefore no corrective action taken.

The Tuning criteria met requirements.

Samples JPP-46.1-012925, JPP-42.1-012925 and JPP-51.1-012925 were initially diluted due to viscous and concentrated matrix.

Samples JPP-46.2-012925, JPP-42.2-012925 were diluted due to high concentrations.

E. Additional Comments:
The Form 6 is not included in the data package because the Initial Calibration was performed using 8 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

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: TCLP BNA

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. 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 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 met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID BF141336.D met the requirements except for Pentachlorophenol, The associate samples have no positive hit for this compound therefore no corrective action was taken.

The Tuning criteria met requirements.

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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 <15% 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 > 15% 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

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: Pesticide-TCL

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for Pesticide-TCL.

C. Analytical Techniques:
The analysis was performed on instrument ECD_L. 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 Pesticide-TCLs was based on method 8081B and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for JPP-46.2-012925 [Decachlorobiphenyl(2) - 152%] as per method one surrogate is allowed to fail therefore no corrective action taken.

The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD for {Q1239-10MSD} with File ID: PL093961.D met criteria except for Endrin aldehyde[30%] due to difference in results of MS and MSD.

The Blank Spike met requirements for all samples .
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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E. Additional Comments:
For samples # JPP-46.1-012925 and JPP-51.1-012925 compound # delta-BHC, below Method detection limits, therefore it is not reported as Hit in Form-1.

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.

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.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: TCLP Pesticide

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for TCLP Pesticide.

C. Analytical Techniques:
The analysis was performed on instrument ECD_L. 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 met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
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:
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

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: PCB

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for PCB.

C. Analytical Techniques:
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 met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID PO109331.D met the requirements except for Decachlorobiphenyl is failing in 1st column but passing in 2nd column therefore no corrective action taken.

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The Continuous Calibration File ID PO109364.D met the requirements except for Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-05), Decachlorobiphenyl is failing in 1st column and Aroclor-1260(Peak-05), Decachlorobiphenyl is failing in 2nd column CCC failing low as corrective action sample reanalyzed for confirmation.

The Continuous Calibration File ID PO109422.D met the requirements except for Aroclor-1260(Peak-01),Aroclor-1260(Peak-02),Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-05),Decachlorobiphenyl is failing in 1st column and Aroclor-1260(Peak-01),Aroclor-1260(Peak-02),Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-05),Decachlorobiphenyl is failing in 2nd column failing low as CCC failure confirmed and both run reported.

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

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: TCLP Herbicide

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. 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 #: 11324The 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 met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
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:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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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_____

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for Diesel Range Organics.

C. Analytical Techniques:
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 were performed on instrument FID_G. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302.The analysis of Diesel Range Organics was based on method 8015D and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.

The MS {Q1241-05MS} with File ID: FE052181.D recoveries met the requirements for all compounds except for DRO[-241.5%] Due to matrix interference.
The MSD {Q1241-05MSD} with File ID: FE052182.D recoveries met the acceptable requirements except for DRO[-214.5%] Due to matrix interference.

The RPD met criteria .
The Blank Spike met requirements for all samples .
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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Samples JPP-46.2-012925, JPP-46.1-012925, JPP-42.1-012925, JPP-42.2-012925 and JPP-51.1-012925 were diluted due to bad matrices,The above sample original run is reported as screening data in miscellaneous data.

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.

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.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for Metals ICP-TAL,Mercury.

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 JPP-51.1-012925 was diluted due to high concentrations for Mercury.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.

The Matrix Spike (JPP-16.1-012925MS) analysis met criteria for all samples except for Antimony due to Chemical Interference during Digestion process.

The Matrix Spike Duplicate (JPP-16.1-012925MSD) analysis met criteria for all samples except for Antimony, Lead, Potassium, Vanadium 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:

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.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: TCLP Mercury,TCLP ICP Metals

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for TCLP Mercury,TCLP ICP Metals.

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 samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
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:

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.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1232
Test Name: Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/30/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, 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 and VOCMS Group1. This data package contains results for Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide.

C. Analytical Techniques:
The analysis of Ignitability was based on method 1030, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034, The analysis of Corrosivity was based on method 9045D and The analysis of Paint Filter was based on method 9095B.

D. QA/ QC Samples:
The Holding Times were met for all samples except for JPP-42.1-012925 of Corrosivity, for JPP-42.2-012925 of Corrosivity.for JPP-46.1-012925 of Corrosivity.for JPP-46.2-012925 of Corrosivity.for JPP-51.1-012925 of Corrosivity as these samples are received out of hold.

The Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

E. Additional Comments:

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.

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DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	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).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	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
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

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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 is 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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1232

	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 Castody	✓
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: SOHIL JODHANI **Date:** 02/13/2025

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1232-02	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1232-06	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1232-10	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1232-14	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1232-18	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**JPP-42.1-012925**							
Q1232-09	JPP-42.1-012925	SOIL	Acetone	7.30	J	3.10	12.2	ug/Kg
			Total Voc :	7.30				
			Total Concentration:	7.30				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.7
Sample Wt/Vol:	16.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021056.D	1		02/04/25 14:16	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.60	U	0.54	1.60	ug/Kg
74-87-3	Chloromethane	1.60	U	0.38	1.60	ug/Kg
75-01-4	Vinyl Chloride	1.60	U	0.25	1.60	ug/Kg
74-83-9	Bromomethane	1.60	U	0.34	1.60	ug/Kg
75-00-3	Chloroethane	1.60	U	0.33	1.60	ug/Kg
75-69-4	Trichlorofluoromethane	1.60	U	0.30	1.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.60	U	0.35	1.60	ug/Kg
75-65-0	Tert butyl alcohol	8.20	U	5.10	8.20	ug/Kg
75-35-4	1,1-Dichloroethene	1.60	U	0.26	1.60	ug/Kg
67-64-1	Acetone	8.20	U	2.10	8.20	ug/Kg
75-15-0	Carbon Disulfide	1.60	U	0.42	1.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.60	U	0.22	1.60	ug/Kg
79-20-9	Methyl Acetate	1.60	U	0.59	1.60	ug/Kg
75-09-2	Methylene Chloride	3.30	U	1.10	3.30	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.60	U	0.28	1.60	ug/Kg
75-34-3	1,1-Dichloroethane	1.60	U	0.21	1.60	ug/Kg
110-82-7	Cyclohexane	1.60	U	0.23	1.60	ug/Kg
78-93-3	2-Butanone	8.20	U	1.90	8.20	ug/Kg
56-23-5	Carbon Tetrachloride	1.60	U	0.29	1.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	1.60	U	0.20	1.60	ug/Kg
74-97-5	Bromochloromethane	1.60	U	0.80	1.60	ug/Kg
67-66-3	Chloroform	1.60	U	0.22	1.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	1.60	U	0.26	1.60	ug/Kg
108-87-2	Methylcyclohexane	1.60	U	0.29	1.60	ug/Kg
71-43-2	Benzene	1.60	U	0.24	1.60	ug/Kg
107-06-2	1,2-Dichloroethane	1.60	U	0.20	1.60	ug/Kg
79-01-6	Trichloroethene	1.60	U	0.25	1.60	ug/Kg
78-87-5	1,2-Dichloropropane	1.60	U	0.22	1.60	ug/Kg
75-27-4	Bromodichloromethane	1.60	U	0.18	1.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	8.20	U	1.40	8.20	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.7
Sample Wt/Vol:	16.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021056.D	1		02/04/25 14:16	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	1.60	U	0.22	1.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	1.60	U	0.20	1.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	1.60	U	0.19	1.60	ug/Kg
79-00-5	1,1,2-Trichloroethane	1.60	U	0.28	1.60	ug/Kg
591-78-6	2-Hexanone	8.20	U	1.60	8.20	ug/Kg
124-48-1	Dibromochloromethane	1.60	U	0.21	1.60	ug/Kg
106-93-4	1,2-Dibromoethane	1.60	U	0.26	1.60	ug/Kg
127-18-4	Tetrachloroethene	1.60	U	0.29	1.60	ug/Kg
108-90-7	Chlorobenzene	1.60	U	0.24	1.60	ug/Kg
100-41-4	Ethyl Benzene	1.60	U	0.20	1.60	ug/Kg
179601-23-1	m/p-Xylenes	3.30	U	0.44	3.30	ug/Kg
95-47-6	o-Xylene	1.60	U	0.23	1.60	ug/Kg
100-42-5	Styrene	1.60	U	0.20	1.60	ug/Kg
75-25-2	Bromoform	1.60	U	0.27	1.60	ug/Kg
98-82-8	Isopropylbenzene	1.60	U	0.22	1.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.60	U	0.36	1.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.60	U	0.24	1.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.60	U	0.26	1.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.60	U	0.19	1.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.60	U	0.51	1.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.60	U	0.26	1.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.60	U	0.26	1.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	66.4		50 - 163	133%	SPK: 50
1868-53-7	Dibromofluoromethane	53.5		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	50.5		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		29 - 146	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	162000	7.707			
540-36-3	1,4-Difluorobenzene	311000	8.616			
3114-55-4	Chlorobenzene-d5	294000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	122000	13.346			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.7
Sample Wt/Vol:	16.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021056.D	1		02/04/25 14:16	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	93.8
Sample Wt/Vol:	15.19 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021057.D	1		02/04/25 14:39	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.80	U	0.58	1.80	ug/Kg
74-87-3	Chloromethane	1.80	U	0.41	1.80	ug/Kg
75-01-4	Vinyl Chloride	1.80	U	0.27	1.80	ug/Kg
74-83-9	Bromomethane	1.80	U	0.36	1.80	ug/Kg
75-00-3	Chloroethane	1.80	U	0.35	1.80	ug/Kg
75-69-4	Trichlorofluoromethane	1.80	U	0.32	1.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.80	U	0.38	1.80	ug/Kg
75-65-0	Tert butyl alcohol	8.80	U	5.50	8.80	ug/Kg
75-35-4	1,1-Dichloroethene	1.80	U	0.27	1.80	ug/Kg
67-64-1	Acetone	8.80	U	2.20	8.80	ug/Kg
75-15-0	Carbon Disulfide	1.80	U	0.45	1.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.80	U	0.24	1.80	ug/Kg
79-20-9	Methyl Acetate	1.80	U	0.63	1.80	ug/Kg
75-09-2	Methylene Chloride	3.50	U	1.20	3.50	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.80	U	0.29	1.80	ug/Kg
75-34-3	1,1-Dichloroethane	1.80	U	0.22	1.80	ug/Kg
110-82-7	Cyclohexane	1.80	U	0.24	1.80	ug/Kg
78-93-3	2-Butanone	8.80	U	2.00	8.80	ug/Kg
56-23-5	Carbon Tetrachloride	1.80	U	0.31	1.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	1.80	U	0.21	1.80	ug/Kg
74-97-5	Bromochloromethane	1.80	U	0.85	1.80	ug/Kg
67-66-3	Chloroform	1.80	U	0.24	1.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	1.80	U	0.27	1.80	ug/Kg
108-87-2	Methylcyclohexane	1.80	U	0.31	1.80	ug/Kg
71-43-2	Benzene	1.80	U	0.25	1.80	ug/Kg
107-06-2	1,2-Dichloroethane	1.80	U	0.21	1.80	ug/Kg
79-01-6	Trichloroethene	1.80	U	0.26	1.80	ug/Kg
78-87-5	1,2-Dichloropropane	1.80	U	0.23	1.80	ug/Kg
75-27-4	Bromodichloromethane	1.80	U	0.20	1.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	8.80	U	1.50	8.80	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	93.8
Sample Wt/Vol:	15.19 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021057.D	1		02/04/25 14:39	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	1.80	U	0.24	1.80	ug/Kg
10061-02-6	t-1,3-Dichloropropene	1.80	U	0.21	1.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	1.80	U	0.20	1.80	ug/Kg
79-00-5	1,1,2-Trichloroethane	1.80	U	0.29	1.80	ug/Kg
591-78-6	2-Hexanone	8.80	U	1.70	8.80	ug/Kg
124-48-1	Dibromochloromethane	1.80	U	0.23	1.80	ug/Kg
106-93-4	1,2-Dibromoethane	1.80	U	0.28	1.80	ug/Kg
127-18-4	Tetrachloroethene	1.80	U	0.31	1.80	ug/Kg
108-90-7	Chlorobenzene	1.80	U	0.26	1.80	ug/Kg
100-41-4	Ethyl Benzene	1.80	U	0.22	1.80	ug/Kg
179601-23-1	m/p-Xylenes	3.50	U	0.47	3.50	ug/Kg
95-47-6	o-Xylene	1.80	U	0.25	1.80	ug/Kg
100-42-5	Styrene	1.80	U	0.21	1.80	ug/Kg
75-25-2	Bromoform	1.80	U	0.28	1.80	ug/Kg
98-82-8	Isopropylbenzene	1.80	U	0.24	1.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.80	U	0.39	1.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.80	U	0.26	1.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.80	U	0.28	1.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.80	U	0.21	1.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.80	U	0.55	1.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.80	U	0.28	1.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.80	U	0.27	1.80	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	62.2		50 - 163	124%	SPK: 50
1868-53-7	Dibromofluoromethane	53.0		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	51.0		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.0		29 - 146	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	153000	7.707			
540-36-3	1,4-Difluorobenzene	289000	8.615			
3114-55-4	Chlorobenzene-d5	273000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.346			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	93.8
Sample Wt/Vol:	15.19 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021057.D	1		02/04/25 14:39	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
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A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	88.6
Sample Wt/Vol:	11.52 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021058.D	1		02/04/25 15:03	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.40	U	0.81	2.40	ug/Kg
74-87-3	Chloromethane	2.40	U	0.57	2.40	ug/Kg
75-01-4	Vinyl Chloride	2.40	U	0.38	2.40	ug/Kg
74-83-9	Bromomethane	2.40	U	0.50	2.40	ug/Kg
75-00-3	Chloroethane	2.40	U	0.49	2.40	ug/Kg
75-69-4	Trichlorofluoromethane	2.40	U	0.45	2.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.40	U	0.52	2.40	ug/Kg
75-65-0	Tert butyl alcohol	12.2	U	7.60	12.2	ug/Kg
75-35-4	1,1-Dichloroethene	2.40	U	0.38	2.40	ug/Kg
67-64-1	Acetone	7.30	J	3.10	12.2	ug/Kg
75-15-0	Carbon Disulfide	2.40	U	0.63	2.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.40	U	0.33	2.40	ug/Kg
79-20-9	Methyl Acetate	2.40	U	0.88	2.40	ug/Kg
75-09-2	Methylene Chloride	4.90	U	1.70	4.90	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.40	U	0.41	2.40	ug/Kg
75-34-3	1,1-Dichloroethane	2.40	U	0.31	2.40	ug/Kg
110-82-7	Cyclohexane	2.40	U	0.34	2.40	ug/Kg
78-93-3	2-Butanone	12.2	U	2.80	12.2	ug/Kg
56-23-5	Carbon Tetrachloride	2.40	U	0.43	2.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.40	U	0.30	2.40	ug/Kg
74-97-5	Bromochloromethane	2.40	U	1.20	2.40	ug/Kg
67-66-3	Chloroform	2.40	U	0.33	2.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.40	U	0.38	2.40	ug/Kg
108-87-2	Methylcyclohexane	2.40	U	0.43	2.40	ug/Kg
71-43-2	Benzene	2.40	U	0.35	2.40	ug/Kg
107-06-2	1,2-Dichloroethane	2.40	U	0.30	2.40	ug/Kg
79-01-6	Trichloroethene	2.40	U	0.37	2.40	ug/Kg
78-87-5	1,2-Dichloropropane	2.40	U	0.32	2.40	ug/Kg
75-27-4	Bromodichloromethane	2.40	U	0.27	2.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.2	U	2.10	12.2	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	88.6
Sample Wt/Vol:	11.52 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021058.D	1		02/04/25 15:03	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	2.40	U	0.33	2.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.40	U	0.29	2.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.40	U	0.28	2.40	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.40	U	0.41	2.40	ug/Kg
591-78-6	2-Hexanone	12.2	U	2.30	12.2	ug/Kg
124-48-1	Dibromochloromethane	2.40	U	0.32	2.40	ug/Kg
106-93-4	1,2-Dibromoethane	2.40	U	0.39	2.40	ug/Kg
127-18-4	Tetrachloroethene	2.40	U	0.44	2.40	ug/Kg
108-90-7	Chlorobenzene	2.40	U	0.36	2.40	ug/Kg
100-41-4	Ethyl Benzene	2.40	U	0.30	2.40	ug/Kg
179601-23-1	m/p-Xylenes	4.90	U	0.66	4.90	ug/Kg
95-47-6	o-Xylene	2.40	U	0.34	2.40	ug/Kg
100-42-5	Styrene	2.40	U	0.29	2.40	ug/Kg
75-25-2	Bromoform	2.40	U	0.40	2.40	ug/Kg
98-82-8	Isopropylbenzene	2.40	U	0.33	2.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.40	U	0.54	2.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.40	U	0.36	2.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.40	U	0.39	2.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.40	U	0.29	2.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.40	U	0.76	2.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.40	U	0.39	2.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.40	U	0.38	2.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.4		50 - 163	119%	SPK: 50
1868-53-7	Dibromofluoromethane	40.1		54 - 147	80%	SPK: 50
2037-26-5	Toluene-d8	50.4		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.8		29 - 146	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	151000	7.707			
540-36-3	1,4-Difluorobenzene	284000	8.616			
3114-55-4	Chlorobenzene-d5	260000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	105000	13.346			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	88.6
Sample Wt/Vol:	11.52 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021058.D	1		02/04/25 15:03	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	92.1
Sample Wt/Vol:	11.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021059.D	1		02/04/25 15:26	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.30	U	0.75	2.30	ug/Kg
74-87-3	Chloromethane	2.30	U	0.53	2.30	ug/Kg
75-01-4	Vinyl Chloride	2.30	U	0.35	2.30	ug/Kg
74-83-9	Bromomethane	2.30	U	0.47	2.30	ug/Kg
75-00-3	Chloroethane	2.30	U	0.46	2.30	ug/Kg
75-69-4	Trichlorofluoromethane	2.30	U	0.41	2.30	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.30	U	0.49	2.30	ug/Kg
75-65-0	Tert butyl alcohol	11.3	U	7.10	11.3	ug/Kg
75-35-4	1,1-Dichloroethene	2.30	U	0.35	2.30	ug/Kg
67-64-1	Acetone	11.3	U	2.80	11.3	ug/Kg
75-15-0	Carbon Disulfide	2.30	U	0.58	2.30	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.30	U	0.30	2.30	ug/Kg
79-20-9	Methyl Acetate	2.30	U	0.82	2.30	ug/Kg
75-09-2	Methylene Chloride	4.50	U	1.50	4.50	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.30	U	0.38	2.30	ug/Kg
75-34-3	1,1-Dichloroethane	2.30	U	0.29	2.30	ug/Kg
110-82-7	Cyclohexane	2.30	U	0.31	2.30	ug/Kg
78-93-3	2-Butanone	11.3	U	2.60	11.3	ug/Kg
56-23-5	Carbon Tetrachloride	2.30	U	0.39	2.30	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.30	U	0.28	2.30	ug/Kg
74-97-5	Bromochloromethane	2.30	U	1.10	2.30	ug/Kg
67-66-3	Chloroform	2.30	U	0.30	2.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.30	U	0.35	2.30	ug/Kg
108-87-2	Methylcyclohexane	2.30	U	0.39	2.30	ug/Kg
71-43-2	Benzene	2.30	U	0.33	2.30	ug/Kg
107-06-2	1,2-Dichloroethane	2.30	U	0.28	2.30	ug/Kg
79-01-6	Trichloroethene	2.30	U	0.34	2.30	ug/Kg
78-87-5	1,2-Dichloropropane	2.30	U	0.30	2.30	ug/Kg
75-27-4	Bromodichloromethane	2.30	U	0.25	2.30	ug/Kg
108-10-1	4-Methyl-2-Pentanone	11.3	U	2.00	11.3	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	92.1
Sample Wt/Vol:	11.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021059.D	1		02/04/25 15:26	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	2.30	U	0.30	2.30	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.30	U	0.27	2.30	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.30	U	0.26	2.30	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.30	U	0.38	2.30	ug/Kg
591-78-6	2-Hexanone	11.3	U	2.20	11.3	ug/Kg
124-48-1	Dibromochloromethane	2.30	U	0.29	2.30	ug/Kg
106-93-4	1,2-Dibromoethane	2.30	U	0.36	2.30	ug/Kg
127-18-4	Tetrachloroethene	2.30	U	0.40	2.30	ug/Kg
108-90-7	Chlorobenzene	2.30	U	0.34	2.30	ug/Kg
100-41-4	Ethyl Benzene	2.30	U	0.28	2.30	ug/Kg
179601-23-1	m/p-Xylenes	4.50	U	0.61	4.50	ug/Kg
95-47-6	o-Xylene	2.30	U	0.32	2.30	ug/Kg
100-42-5	Styrene	2.30	U	0.27	2.30	ug/Kg
75-25-2	Bromoform	2.30	U	0.37	2.30	ug/Kg
98-82-8	Isopropylbenzene	2.30	U	0.30	2.30	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.30	U	0.50	2.30	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.30	U	0.34	2.30	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.30	U	0.36	2.30	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.30	U	0.27	2.30	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.30	U	0.71	2.30	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.30	U	0.36	2.30	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.30	U	0.35	2.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	63.8		50 - 163	128%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		54 - 147	99%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.1		29 - 146	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	151000	7.707			
540-36-3	1,4-Difluorobenzene	289000	8.61			
3114-55-4	Chlorobenzene-d5	277000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	111000	13.347			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	92.1
Sample Wt/Vol:	11.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021059.D	1		02/04/25 15:26	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	94.4
Sample Wt/Vol:	13.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021060.D	1		02/04/25 15:50	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.00	U	0.65	2.00	ug/Kg
74-87-3	Chloromethane	2.00	U	0.46	2.00	ug/Kg
75-01-4	Vinyl Chloride	2.00	U	0.30	2.00	ug/Kg
74-83-9	Bromomethane	2.00	U	0.41	2.00	ug/Kg
75-00-3	Chloroethane	2.00	U	0.40	2.00	ug/Kg
75-69-4	Trichlorofluoromethane	2.00	U	0.36	2.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.00	U	0.42	2.00	ug/Kg
75-65-0	Tert butyl alcohol	9.90	U	6.20	9.90	ug/Kg
75-35-4	1,1-Dichloroethene	2.00	U	0.31	2.00	ug/Kg
67-64-1	Acetone	9.90	U	2.50	9.90	ug/Kg
75-15-0	Carbon Disulfide	2.00	U	0.51	2.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.00	U	0.27	2.00	ug/Kg
79-20-9	Methyl Acetate	2.00	U	0.71	2.00	ug/Kg
75-09-2	Methylene Chloride	4.00	U	1.30	4.00	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.00	U	0.33	2.00	ug/Kg
75-34-3	1,1-Dichloroethane	2.00	U	0.25	2.00	ug/Kg
110-82-7	Cyclohexane	2.00	U	0.27	2.00	ug/Kg
78-93-3	2-Butanone	9.90	U	2.20	9.90	ug/Kg
56-23-5	Carbon Tetrachloride	2.00	U	0.34	2.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.00	U	0.24	2.00	ug/Kg
74-97-5	Bromochloromethane	2.00	U	0.96	2.00	ug/Kg
67-66-3	Chloroform	2.00	U	0.27	2.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.00	U	0.31	2.00	ug/Kg
108-87-2	Methylcyclohexane	2.00	U	0.34	2.00	ug/Kg
71-43-2	Benzene	2.00	U	0.28	2.00	ug/Kg
107-06-2	1,2-Dichloroethane	2.00	U	0.24	2.00	ug/Kg
79-01-6	Trichloroethene	2.00	U	0.30	2.00	ug/Kg
78-87-5	1,2-Dichloropropane	2.00	U	0.26	2.00	ug/Kg
75-27-4	Bromodichloromethane	2.00	U	0.22	2.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	9.90	U	1.70	9.90	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	94.4
Sample Wt/Vol:	13.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021060.D	1		02/04/25 15:50	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	2.00	U	0.27	2.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.00	U	0.24	2.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.00	U	0.23	2.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.00	U	0.33	2.00	ug/Kg
591-78-6	2-Hexanone	9.90	U	1.90	9.90	ug/Kg
124-48-1	Dibromochloromethane	2.00	U	0.26	2.00	ug/Kg
106-93-4	1,2-Dibromoethane	2.00	U	0.31	2.00	ug/Kg
127-18-4	Tetrachloroethene	2.00	U	0.35	2.00	ug/Kg
108-90-7	Chlorobenzene	2.00	U	0.29	2.00	ug/Kg
100-41-4	Ethyl Benzene	2.00	U	0.25	2.00	ug/Kg
179601-23-1	m/p-Xylenes	4.00	U	0.53	4.00	ug/Kg
95-47-6	o-Xylene	2.00	U	0.28	2.00	ug/Kg
100-42-5	Styrene	2.00	U	0.24	2.00	ug/Kg
75-25-2	Bromoform	2.00	U	0.32	2.00	ug/Kg
98-82-8	Isopropylbenzene	2.00	U	0.27	2.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.00	U	0.44	2.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.00	U	0.29	2.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.00	U	0.32	2.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.00	U	0.23	2.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.00	U	0.62	2.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.00	U	0.31	2.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.00	U	0.31	2.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	65.4		50 - 163	131%	SPK: 50
1868-53-7	Dibromofluoromethane	53.7		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	51.1		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.0		29 - 146	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	150000	7.707			
540-36-3	1,4-Difluorobenzene	283000	8.616			
3114-55-4	Chlorobenzene-d5	268000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.347			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	94.4
Sample Wt/Vol:	13.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021060.D	1		02/04/25 15:50	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1232-01	JPP-46.2-012925	1,2-Dichloroethane-d4	50	66.4	133	50	163
		Dibromofluoromethane	50	53.5	107	54	147
		Toluene-d8	50	50.5	101	58	134
		4-Bromofluorobenzene	50	50.7	101	29	146
Q1232-05	JPP-46.1-012925	1,2-Dichloroethane-d4	50	62.2	124	50	163
		Dibromofluoromethane	50	53.0	106	54	147
		Toluene-d8	50	51.0	102	58	134
		4-Bromofluorobenzene	50	50.0	100	29	146
Q1232-09	JPP-42.1-012925	1,2-Dichloroethane-d4	50	59.4	119	50	163
		Dibromofluoromethane	50	40.1	80	54	147
		Toluene-d8	50	50.4	101	58	134
		4-Bromofluorobenzene	50	47.8	96	29	146
Q1232-13	JPP-42.2-012925	1,2-Dichloroethane-d4	50	63.8	128	50	163
		Dibromofluoromethane	50	49.4	99	54	147
		Toluene-d8	50	50.3	100	58	134
		4-Bromofluorobenzene	50	50.1	100	29	146
Q1232-17	JPP-51.1-012925	1,2-Dichloroethane-d4	50	65.4	131	50	163
		Dibromofluoromethane	50	53.8	107	54	147
		Toluene-d8	50	51.1	102	58	134
		4-Bromofluorobenzene	50	51.0	102	29	146
VY0204SBL01	VY0204SBL01	1,2-Dichloroethane-d4	50	57.4	115	50	163
		Dibromofluoromethane	50	51.6	103	54	147
		Toluene-d8	50	49.8	100	58	134
		4-Bromofluorobenzene	50	47.5	95	29	146
VY0204SBS01	VY0204SBS01	1,2-Dichloroethane-d4	50	44.3	89	50	163
		Dibromofluoromethane	50	44.6	89	54	147
		Toluene-d8	50	45.4	91	58	134
		4-Bromofluorobenzene	50	45.0	90	29	146
VY0204SBSD01	VY0204SBSD01	1,2-Dichloroethane-d4	50	55.2	110	50	163
		Dibromofluoromethane	50	53.3	107	54	147
		Toluene-d8	50	54.0	108	58	134
		4-Bromofluorobenzene	50	56.3	113	29	146

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBS01	Dichlorodifluoromethane	20	18.7	ug/Kg	94			64	136	
	Chloromethane	20	18.1	ug/Kg	91			70	130	
	Vinyl chloride	20	17.9	ug/Kg	90			72	129	
	Bromomethane	20	17.8	ug/Kg	89			58	141	
	Chloroethane	20	17.7	ug/Kg	89			69	130	
	Trichlorofluoromethane	20	18.1	ug/Kg	91			69	134	
	1,1,2-Trichlorotrifluoroethane	20	18.9	ug/Kg	95			81	123	
	Tert butyl alcohol	100	97.5	ug/Kg	98			24	175	
	1,1-Dichloroethene	20	18.1	ug/Kg	91			79	121	
	Acetone	100	95.3	ug/Kg	95			60	131	
	Carbon disulfide	20	17.7	ug/Kg	89			45	154	
	Methyl tert-butyl Ether	20	17.8	ug/Kg	89			77	129	
	Methyl Acetate	20	18.0	ug/Kg	90			69	149	
	Methylene Chloride	20	18.3	ug/Kg	92			56	174	
	trans-1,2-Dichloroethene	20	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	20	18.6	ug/Kg	93			82	123	
	Cyclohexane	20	18.5	ug/Kg	93			76	122	
	2-Butanone	100	92.2	ug/Kg	92			69	131	
	Carbon Tetrachloride	20	18.8	ug/Kg	94			76	129	
	cis-1,2-Dichloroethene	20	18.3	ug/Kg	92			82	123	
	Bromochloromethane	20	19.9	ug/Kg	100			80	127	
	Chloroform	20	18.5	ug/Kg	93			82	125	
	1,1,1-Trichloroethane	20	18.9	ug/Kg	95			80	126	
	Methylcyclohexane	20	18.4	ug/Kg	92			77	123	
	Benzene	20	18.5	ug/Kg	93			84	121	
	1,2-Dichloroethane	20	18.1	ug/Kg	91			81	126	
	Trichloroethene	20	18.6	ug/Kg	93			83	122	
	1,2-Dichloropropane	20	19.1	ug/Kg	96			83	122	
	Bromodichloromethane	20	18.6	ug/Kg	93			82	123	
	4-Methyl-2-Pentanone	100	92.4	ug/Kg	92			70	135	
	Toluene	20	18.9	ug/Kg	95			83	122	
	t-1,3-Dichloropropene	20	18.2	ug/Kg	91			78	124	
	cis-1,3-Dichloropropene	20	18.6	ug/Kg	93			81	122	
	1,1,2-Trichloroethane	20	18.4	ug/Kg	92			82	125	
	2-Hexanone	100	90.8	ug/Kg	91			66	138	
	Dibromochloromethane	20	18.3	ug/Kg	92			79	125	
	1,2-Dibromoethane	20	17.8	ug/Kg	89			80	125	
	Tetrachloroethene	20	18.9	ug/Kg	95			83	125	
	Chlorobenzene	20	18.6	ug/Kg	93			84	122	
	Ethyl Benzene	20	18.7	ug/Kg	94			82	124	
	m/p-Xylenes	40	37.8	ug/Kg	95			83	124	
	o-Xylene	20	18.6	ug/Kg	93			83	123	
	Styrene	20	18.8	ug/Kg	94			82	124	
	Bromoform	20	18.6	ug/Kg	93			75	127	
	Isopropylbenzene	20	17.7	ug/Kg	89			82	124	
	1,1,2,2-Tetrachloroethane	20	17.4	ug/Kg	87			77	127	
	1,3-Dichlorobenzene	20	17.9	ug/Kg	90			83	122	
	1,4-Dichlorobenzene	20	18.3	ug/Kg	92			84	121	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBS01	1,2-Dichlorobenzene	20	18.2	ug/Kg	91			83	124	
	1,2-Dibromo-3-Chloropropane	20	16.3	ug/Kg	81			66	134	
	1,2,4-Trichlorobenzene	20	18.3	ug/Kg	92			78	127	
	1,2,3-Trichlorobenzene	20	17.8	ug/Kg	89			70	137	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBSD01	Dichlorodifluoromethane	20	19.3	ug/Kg	97	3		64	136	20
	Chloromethane	20	19.7	ug/Kg	99	8		70	130	20
	Vinyl chloride	20	18.1	ug/Kg	91	1		72	129	20
	Bromomethane	20	19.2	ug/Kg	96	8		58	141	20
	Chloroethane	20	17.6	ug/Kg	88	1		69	130	20
	Trichlorofluoromethane	20	18.4	ug/Kg	92	1		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	19.1	ug/Kg	96	1		81	123	20
	Tert butyl alcohol	100	120	ug/Kg	120	20		24	175	20
	1,1-Dichloroethene	20	18.9	ug/Kg	95	4		79	121	20
	Acetone	100	120	ug/Kg	120	23	*	60	131	20
	Carbon disulfide	20	18.3	ug/Kg	92	3		45	154	20
	Methyl tert-butyl Ether	20	20.4	ug/Kg	102	14		77	129	20
	Methyl Acetate	20	21.7	ug/Kg	109	19		69	149	20
	Methylene Chloride	20	20.2	ug/Kg	101	9		56	174	20
	trans-1,2-Dichloroethene	20	19.5	ug/Kg	98	9		80	123	20
	1,1-Dichloroethane	20	20.1	ug/Kg	101	8		82	123	20
	Cyclohexane	20	18.6	ug/Kg	93	0		76	122	20
	2-Butanone	100	110	ug/Kg	110	18		69	131	20
	Carbon Tetrachloride	20	19.3	ug/Kg	97	3		76	129	20
	cis-1,2-Dichloroethene	20	20.0	ug/Kg	100	8		82	123	20
	Bromochloromethane	20	23.4	ug/Kg	117	16		80	127	20
	Chloroform	20	20.1	ug/Kg	101	8		82	125	20
	1,1,1-Trichloroethane	20	19.9	ug/Kg	100	5		80	126	20
	Methylcyclohexane	20	18.5	ug/Kg	93	1		77	123	20
	Benzene	20	20.0	ug/Kg	100	7		84	121	20
	1,2-Dichloroethane	20	20.4	ug/Kg	102	11		81	126	20
	Trichloroethene	20	19.4	ug/Kg	97	4		83	122	20
	1,2-Dichloropropane	20	20.1	ug/Kg	101	5		83	122	20
	Bromodichloromethane	20	20.6	ug/Kg	103	10		82	123	20
	4-Methyl-2-Pentanone	100	110	ug/Kg	110	18		70	135	20
	Toluene	20	20.1	ug/Kg	101	6		83	122	20
	t-1,3-Dichloropropene	20	20.3	ug/Kg	102	11		78	124	20
	cis-1,3-Dichloropropene	20	20.1	ug/Kg	101	8		81	122	20
	1,1,2-Trichloroethane	20	20.5	ug/Kg	103	11		82	125	20
	2-Hexanone	100	110	ug/Kg	110	19		66	138	20
	Dibromochloromethane	20	20.7	ug/Kg	104	12		79	125	20
	1,2-Dibromoethane	20	20.1	ug/Kg	101	13		80	125	20
	Tetrachloroethene	20	19.6	ug/Kg	98	3		83	125	20
	Chlorobenzene	20	19.7	ug/Kg	99	6		84	122	20
	Ethyl Benzene	20	19.6	ug/Kg	98	4		82	124	20
	m/p-Xylenes	40	39.7	ug/Kg	99	4		83	124	20
	o-Xylene	20	20.1	ug/Kg	101	8		83	123	20
	Styrene	20	20.2	ug/Kg	101	7		82	124	20
	Bromoform	20	21.3	ug/Kg	106	13		75	127	20
	Isopropylbenzene	20	18.5	ug/Kg	93	4		82	124	20
	1,1,2,2-Tetrachloroethane	20	20.3	ug/Kg	102	16		77	127	20
	1,3-Dichlorobenzene	20	19.2	ug/Kg	96	6		83	122	20
	1,4-Dichlorobenzene	20	19.8	ug/Kg	99	7		84	121	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VY0204SBSD01	1,2-Dichlorobenzene	20	19.9	ug/Kg	100	9		83	124	20
	1,2-Dibromo-3-Chloropropane	20	20.8	ug/Kg	104	25	*	66	134	20
	1,2,4-Trichlorobenzene	20	20.1	ug/Kg	101	9		78	127	20
	1,2,3-Trichlorobenzene	20	20.9	ug/Kg	104	16		70	137	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0204SBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VY021047.D Lab Sample ID: VY0204SBL01

Date Analyzed: 02/04/2025 Time Analyzed: 10:15

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025
JPP-46.2-012925	Q1232-01	VY021056.D	02/04/2025
JPP-46.1-012925	Q1232-05	VY021057.D	02/04/2025
JPP-42.1-012925	Q1232-09	VY021058.D	02/04/2025
JPP-42.2-012925	Q1232-13	VY021059.D	02/04/2025
JPP-51.1-012925	Q1232-17	VY021060.D	02/04/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VY021019.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:51

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	49
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	89.7
175	5.0 - 9.0% of mass 174	7 (7.8) 1
176	95.0 - 101.0% of mass 174	87 (97) 1
177	5.0 - 9.0% of mass 176	5.9 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VY021020.D	02/03/2025	10:35
VSTDICC010	VSTDICC010	VY021021.D	02/03/2025	10:57
VSTDICC020	VSTDICC020	VY021022.D	02/03/2025	11:20
VSTDICCC050	VSTDICCC050	VY021023.D	02/03/2025	11:43
VSTDICC100	VSTDICC100	VY021024.D	02/03/2025	12:21
VSTDICC150	VSTDICC150	VY021025.D	02/03/2025	12:44

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VY021045.D BFB Injection Date: 02/04/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:16

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	55.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.3 (1.5) 1
174	50.0 - 100.0% of mass 95	88.1
175	5.0 - 9.0% of mass 174	7 (7.9) 1
176	95.0 - 101.0% of mass 174	84.8 (96.1) 1
177	5.0 - 9.0% of mass 176	5.3 (6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VY021046.D	02/04/2025	09:47
VY0204SBL01	VY0204SBL01	VY021047.D	02/04/2025	10:15
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025	10:52
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025	11:15
JPP-46.2-012925	Q1232-01	VY021056.D	02/04/2025	14:16
JPP-46.1-012925	Q1232-05	VY021057.D	02/04/2025	14:39
JPP-42.1-012925	Q1232-09	VY021058.D	02/04/2025	15:03
JPP-42.2-012925	Q1232-13	VY021059.D	02/04/2025	15:26
JPP-51.1-012925	Q1232-17	VY021060.D	02/04/2025	15:50

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VY021046.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_Y Time Analyzed: 09:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	154178	7.71	233780	8.62	206737	11.42
UPPER LIMIT	308356	8.213	467560	9.115	413474	11.92
LOWER LIMIT	77089	7.213	116890	8.115	103369	10.92
EPA SAMPLE NO.						
JPP-46.2-012925	161743	7.71	311262	8.62	293506	11.41
JPP-46.1-012925	153324	7.71	288726	8.62	272546	11.41
JPP-42.1-012925	151174	7.71	284356	8.62	260317	11.41
JPP-42.2-012925	151439	7.71	288850	8.61	276517	11.41
JPP-51.1-012925	149686	7.71	283416	8.62	268362	11.42
VY0204SBL01	173019	7.71	321305	8.62	292351	11.42
VY0204SBS01	159738	7.71	247448	8.62	212473	11.42
VY0204SBSD01	146628	7.71	228862	8.62	199914	11.42

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VY021046.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_Y Time Analyzed: 09:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	102470	13.352				
UPPER LIMIT	204940	13.852				
LOWER LIMIT	51235	12.852				
EPA SAMPLE NO.						
JPP-46.2-012925	122366	13.35				
JPP-46.1-012925	112034	13.35				
JPP-42.1-012925	104742	13.35				
JPP-42.2-012925	111286	13.35				
JPP-51.1-012925	112142	13.35				
VY0204SBL01	114535	13.35				
VY0204SBS01	108974	13.35				
VY0204SBSD01	101483	13.35				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	25.0	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.78	5.00	ug/Kg
67-64-1	Acetone	25.0	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	0.87	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.00	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.00	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.70	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.4		50 - 163	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	49.8		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		29 - 146	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	173000	7.713			
540-36-3	1,4-Difluorobenzene	321000	8.616			
3114-55-4	Chlorobenzene-d5	292000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.7		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.1		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.9		0.77	5.00	ug/Kg
74-83-9	Bromomethane	17.8		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.7		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.1		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	18.9		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	97.5		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.1		0.78	5.00	ug/Kg
67-64-1	Acetone	95.3		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.7		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	17.8		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	18.0		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	18.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	17.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	92.2		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.8		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	18.3		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	19.9		2.40	5.00	ug/Kg
67-66-3	Chloroform	18.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.4		0.87	5.00	ug/Kg
71-43-2	Benzene	18.5		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	18.1		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.6		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	92.4		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.9		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	18.2		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	18.6		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	18.4		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	90.8		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	18.3		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	17.8		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	18.6		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.8		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.6		0.70	5.00	ug/Kg
100-42-5	Styrene	18.8		0.60	5.00	ug/Kg
75-25-2	Bromoform	18.6		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	17.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	17.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	17.9		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	18.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	18.2		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.3		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.3		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.8		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.3		50 - 163	89%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		54 - 147	89%	SPK: 50
2037-26-5	Toluene-d8	45.4		58 - 134	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.0		29 - 146	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.707			
540-36-3	1,4-Difluorobenzene	247000	8.616			
3114-55-4	Chlorobenzene-d5	212000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	109000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.3		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.7		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.1		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.6		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.4		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.1		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	120		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.9		0.78	5.00	ug/Kg
67-64-1	Acetone	120		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.3		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	20.4		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	21.7		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	20.2		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.5		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.1		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.6		0.69	5.00	ug/Kg
78-93-3	2-Butanone	110		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.3		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	23.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.1		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	20.0		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.4		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.4		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	20.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20.3		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.1		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.5		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.7		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.1		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.6		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.6		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	39.7		1.40	10.0	ug/Kg
95-47-6	o-Xylene	20.1		0.70	5.00	ug/Kg
100-42-5	Styrene	20.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	21.3		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.3		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.8		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.9		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.8		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	20.1		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	20.9		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.2		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	53.9		58 - 134	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.3		29 - 146	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	147000	7.707			
540-36-3	1,4-Difluorobenzene	229000	8.616			
3114-55-4	Chlorobenzene-d5	200000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	101000	13.346			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1232
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.503	0.438	0.413	0.445	0.419	0.457	0.446	7.2
Chloromethane	0.524	0.445	0.408	0.421	0.404	0.437	0.440	10.1
Vinyl Chloride	0.535	0.441	0.404	0.424	0.408	0.443	0.443	10.9
Bromomethane	0.356	0.275	0.249	0.258	0.246	0.257	0.274	15.2
Chloroethane	0.316	0.270	0.240	0.255	0.239	0.261	0.263	10.7
Trichlorofluoromethane	0.924	0.814	0.755	0.789	0.743	0.813	0.806	8
1,1,2-Trichlorotrifluoroethane	0.587	0.507	0.472	0.494	0.466	0.510	0.506	8.6
Tert butyl alcohol	0.042	0.039	0.035	0.032	0.028	0.032	0.035	14.8
1,1-Dichloroethene	0.529	0.471	0.441	0.469	0.452	0.498	0.477	6.8
Acetone	0.087	0.083	0.078	0.077	0.070	0.083	0.080	7.5
Carbon Disulfide	1.673	1.456	1.389	1.475	1.421	1.556	1.495	7
Methyl tert-butyl Ether	1.271	1.185	1.168	1.216	1.124	1.265	1.205	4.8
Methyl Acetate	0.300	0.282	0.268	0.287	0.253	0.291	0.280	6.1
Methylene Chloride	0.570	0.506	0.473	0.485	0.452	0.494	0.497	8.2
trans-1,2-Dichloroethene	0.578	0.518	0.502	0.522	0.490	0.538	0.525	5.8
1,1-Dichloroethane	1.104	0.948	0.923	0.947	0.911	0.989	0.970	7.3
Cyclohexane	1.093	0.885	0.807	0.827	0.779	0.852	0.874	13
2-Butanone	0.134	0.133	0.126	0.135	0.121	0.139	0.131	5.2
Carbon Tetrachloride	0.604	0.551	0.522	0.547	0.522	0.581	0.555	5.9
cis-1,2-Dichloroethene	0.662	0.584	0.577	0.599	0.575	0.626	0.604	5.7
Bromochloromethane	0.373	0.368	0.381	0.413	0.374	0.394	0.384	4.4
Chloroform	1.107	1.016	0.947	0.982	0.921	1.006	0.997	6.5
1,1,1-Trichloroethane	1.067	0.901	0.867	0.912	0.863	0.949	0.927	8.2
Methylcyclohexane	0.609	0.550	0.536	0.588	0.570	0.629	0.581	6.1
Benzene	1.512	1.382	1.327	1.378	1.323	1.436	1.393	5.1
1,2-Dichloroethane	0.435	0.390	0.367	0.379	0.352	0.395	0.386	7.4
Trichloroethene	0.401	0.355	0.341	0.349	0.338	0.375	0.360	6.7
1,2-Dichloropropane	0.357	0.329	0.319	0.327	0.311	0.341	0.331	5
Bromodichloromethane	0.528	0.500	0.469	0.482	0.459	0.506	0.491	5.2
4-Methyl-2-Pentanone	0.202	0.211	0.202	0.216	0.194	0.224	0.208	5.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Toluene	0.913	0.856	0.840	0.876	0.844	0.918	0.875	3.9
t-1,3-Dichloropropene	0.441	0.426	0.419	0.449	0.427	0.483	0.441	5.3
cis-1,3-Dichloropropene	0.528	0.516	0.502	0.525	0.501	0.560	0.522	4.2
1,1,2-Trichloroethane	0.261	0.235	0.231	0.235	0.217	0.242	0.237	6.1
2-Hexanone	0.124	0.131	0.128	0.144	0.129	0.149	0.134	7.4
Dibromochloromethane	0.359	0.330	0.324	0.329	0.310	0.346	0.333	5.2
1,2-Dibromoethane	0.232	0.223	0.215	0.225	0.203	0.233	0.222	5
Tetrachloroethene	0.409	0.367	0.352	0.361	0.351	0.387	0.371	6.2
Chlorobenzene	1.237	1.115	1.054	1.080	1.048	1.146	1.113	6.4
Ethyl Benzene	2.101	1.899	1.865	1.943	1.914	2.093	1.969	5.2
m/p-Xylenes	0.772	0.723	0.709	0.733	0.711	0.773	0.737	3.9
o-Xylene	0.723	0.658	0.660	0.681	0.670	0.729	0.687	4.6
Styrene	1.154	1.118	1.105	1.156	1.128	1.208	1.145	3.2
Bromoform	0.231	0.222	0.217	0.216	0.205	0.229	0.220	4.4
Isopropylbenzene	4.122	3.695	3.673	3.809	3.871	4.263	3.906	6.1
1,1,2,2-Tetrachloroethane	0.707	0.646	0.635	0.632	0.597	0.680	0.650	6
1,3-Dichlorobenzene	1.937	1.686	1.660	1.683	1.652	1.824	1.740	6.6
1,4-Dichlorobenzene	1.906	1.702	1.632	1.665	1.599	1.778	1.714	6.6
1,2-Dichlorobenzene	1.668	1.524	1.440	1.460	1.405	1.567	1.510	6.4
1,2-Dibromo-3-Chloropropane	0.099	0.099	0.089	0.097	0.089	0.109	0.097	7.6
1,2,4-Trichlorobenzene	0.796	0.754	0.743	0.875	0.873	1.004	0.841	11.6
1,2,3-Trichlorobenzene	0.641	0.640	0.626	0.733	0.726	0.832	0.700	11.4
1,2-Dichloroethane-d4	0.566	0.557	0.478	0.503	0.454	0.516	0.512	8.5
Dibromofluoromethane	0.351	0.326	0.301	0.313	0.297	0.333	0.320	6.4
Toluene-d8	1.295	1.237	1.139	1.202	1.158	1.288	1.220	5.3
4-Bromofluorobenzene	0.417	0.408	0.371	0.403	0.375	0.418	0.399	5.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.446	0.470		5.38	20
Chloromethane	0.440	0.443	0.1	0.68	20
Vinyl Chloride	0.443	0.443		0	20
Bromomethane	0.274	0.270		-1.46	20
Chloroethane	0.263	0.263		0	20
Trichlorofluoromethane	0.806	0.812		0.74	20
1,1,2-Trichlorotrifluoroethane	0.506	0.522		3.16	20
Tert butyl alcohol	0.035	0.035		0	20
1,1-Dichloroethene	0.477	0.489		2.52	20
Acetone	0.080	0.085		6.25	20
Carbon Disulfide	1.495	1.571		5.08	20
Methyl tert-butyl Ether	1.205	1.270		5.39	20
Methyl Acetate	0.280	0.312		11.43	20
Methylene Chloride	0.497	0.513		3.22	20
trans-1,2-Dichloroethene	0.525	0.550		4.76	20
1,1-Dichloroethane	0.970	1.014	0.1	4.54	20
Cyclohexane	0.874	0.883		1.03	20
2-Butanone	0.131	0.143		9.16	20
Carbon Tetrachloride	0.555	0.591		6.49	20
cis-1,2-Dichloroethene	0.604	0.639		5.8	20
Bromochloromethane	0.384	0.407		5.99	20
Chloroform	0.997	1.045		4.81	20
1,1,1-Trichloroethane	0.927	0.969		4.53	20
Methylcyclohexane	0.581	0.623		7.23	20
Benzene	1.393	1.501		7.75	20
1,2-Dichloroethane	0.386	0.414		7.25	20
Trichloroethene	0.360	0.380		5.56	20
1,2-Dichloropropane	0.331	0.357		7.86	20
Bromodichloromethane	0.491	0.518		5.5	20
4-Methyl-2-Pentanone	0.208	0.238		14.42	20
Toluene	0.875	0.954		9.03	20
t-1,3-Dichloropropene	0.441	0.486		10.2	20
cis-1,3-Dichloropropene	0.522	0.569		9	20
1,1,2-Trichloroethane	0.237	0.253		6.75	20
2-Hexanone	0.134	0.157		17.16	20
Dibromochloromethane	0.333	0.359		7.81	20
1,2-Dibromoethane	0.222	0.240		8.11	20
Tetrachloroethene	0.371	0.387		4.31	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

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Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chlorobenzene	1.113	1.159	0.3	4.13	20
Ethyl Benzene	1.969	2.119		7.62	20
m/p-Xylenes	0.737	0.793		7.6	20
o-Xylene	0.687	0.747		8.73	20
Styrene	1.145	1.261		10.13	20
Bromoform	0.220	0.240	0.1	9.09	20
Isopropylbenzene	3.906	4.054		3.76	20
1,1,2,2-Tetrachloroethane	0.650	0.677	0.3	4.15	20
1,3-Dichlorobenzene	1.740	1.821		4.66	20
1,4-Dichlorobenzene	1.714	1.787		4.26	20
1,2-Dichlorobenzene	1.510	1.568		3.84	20
1,2-Dibromo-3-Chloropropane	0.097	0.101		4.12	20
1,2,4-Trichlorobenzene	0.841	0.932		10.82	20
1,2,3-Trichlorobenzene	0.700	0.777		11	20
1,2-Dichloroethane-d4	0.512	0.534		4.3	20
Dibromofluoromethane	0.320	0.343		7.19	20
Toluene-d8	1.220	1.329		8.93	20
4-Bromofluorobenzene	0.399	0.446		11.78	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-02	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-06	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-10	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-14	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	
Q1232-18	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**JPP-46.1-012925**							
Q1232-06	JPP-46.1-012925	TCLP	2-Butanone	5.00	J	1.30	25.0	ug/L
			Total Voc :	5.00				
			Total Concentration:	5.00				

SAMPLE DATA

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-02	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085633.D	1		02/03/25 19:37	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.1		74 - 125	106%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		75 - 124	96%	SPK: 50
2037-26-5	Toluene-d8	50.9		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.7		77 - 121	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	163000	8.224			
540-36-3	1,4-Difluorobenzene	348000	9.1			
3114-55-4	Chlorobenzene-d5	326000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	110000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-06	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044816.D	1		02/03/25 15:45	VX020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	5.00	J	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.9		74 - 125	94%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		75 - 124	95%	SPK: 50
2037-26-5	Toluene-d8	52.3		86 - 113	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		77 - 121	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	118000	5.544			
540-36-3	1,4-Difluorobenzene	241000	6.757			
3114-55-4	Chlorobenzene-d5	214000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	91800	12.018			

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Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-10	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085642.D	1		02/03/25 23:14	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.3		74 - 125	97%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		75 - 124	94%	SPK: 50
2037-26-5	Toluene-d8	51.0		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.8		77 - 121	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	193000	8.224			
540-36-3	1,4-Difluorobenzene	385000	9.1			
3114-55-4	Chlorobenzene-d5	363000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	159000	13.788			

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-14	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044818.D	1		02/03/25 16:32	VX020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.4		74 - 125	93%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	53.4		86 - 113	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		77 - 121	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	118000	5.549			
540-36-3	1,4-Difluorobenzene	237000	6.757			
3114-55-4	Chlorobenzene-d5	210000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	90100	12.018			

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Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-18	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044819.D	1		02/03/25 16:55	VX020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.3		74 - 125	95%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		75 - 124	98%	SPK: 50
2037-26-5	Toluene-d8	53.6		86 - 113	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	115000	5.55			
540-36-3	1,4-Difluorobenzene	233000	6.757			
3114-55-4	Chlorobenzene-d5	205000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	85600	12.018			

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QC SUMMARY

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

Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1232-02	JPP-46.2-012925	1,2-Dichloroethane-d4	50	53.1	106	74	125
		Dibromofluoromethane	50	48.2	96	75	124
		Toluene-d8	50	50.9	102	86	113
		4-Bromofluorobenzene	50	42.7	85	77	121
Q1232-06	JPP-46.1-012925	1,2-Dichloroethane-d4	50	47.0	94	74	125
		Dibromofluoromethane	50	47.6	95	75	124
		Toluene-d8	50	52.3	105	86	113
		4-Bromofluorobenzene	50	48.4	97	77	121
Q1232-10	JPP-42.1-012925	1,2-Dichloroethane-d4	50	48.4	97	74	125
		Dibromofluoromethane	50	47.1	94	75	124
		Toluene-d8	50	51.0	102	86	113
		4-Bromofluorobenzene	50	50.8	102	77	121
Q1232-14	JPP-42.2-012925	1,2-Dichloroethane-d4	50	46.4	93	74	125
		Dibromofluoromethane	50	48.7	97	75	124
		Toluene-d8	50	53.4	107	86	113
		4-Bromofluorobenzene	50	50.4	101	77	121
Q1232-18	JPP-51.1-012925	1,2-Dichloroethane-d4	50	47.3	95	74	125
		Dibromofluoromethane	50	49.1	98	75	124
		Toluene-d8	50	53.6	107	86	113
		4-Bromofluorobenzene	50	48.9	98	77	121
VN0203WBL01	VN0203WBL01	1,2-Dichloroethane-d4	50	50.4	101	74	125
		Dibromofluoromethane	50	50.6	101	75	124
		Toluene-d8	50	50.1	100	86	113
		4-Bromofluorobenzene	50	42.6	85	77	121
VN0203WBS01	VN0203WBS01	1,2-Dichloroethane-d4	50	47.8	96	74	125
		Dibromofluoromethane	50	52.2	104	75	124
		Toluene-d8	50	54.6	109	86	113
		4-Bromofluorobenzene	50	51.1	102	77	121
VN0203WBSD0	VN0203WBSD01	1,2-Dichloroethane-d4	50	48.0	96	74	125
		Dibromofluoromethane	50	51.0	102	75	124
		Toluene-d8	50	51.7	103	86	113
		4-Bromofluorobenzene	50	48.8	98	77	121
VX0203WBL01	VX0203WBL01	1,2-Dichloroethane-d4	50	48.6	97	74	125
		Dibromofluoromethane	50	50.1	100	75	124
		Toluene-d8	50	55.2	110	86	113
		4-Bromofluorobenzene	50	52.9	106	77	121
VX0203WBS01	VX0203WBS01	1,2-Dichloroethane-d4	50	43.1	86	74	125
		Dibromofluoromethane	50	46.5	93	75	124
		Toluene-d8	50	50.2	100	86	113
		4-Bromofluorobenzene	50	47.5	95	77	121

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VN085619.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0203WBS01	Vinyl chloride	20	18.0	ug/L	90			65	117	
	1,1-Dichloroethene	20	17.3	ug/L	86			74	110	
	2-Butanone	100	88.6	ug/L	89			65	122	
	Carbon Tetrachloride	20	17.5	ug/L	88			77	113	
	Chloroform	20	19.0	ug/L	95			79	113	
	Benzene	20	18.6	ug/L	93			82	109	
	1,2-Dichloroethane	20	17.2	ug/L	86			80	115	
	Trichloroethene	20	18.4	ug/L	92			77	113	
	Tetrachloroethene	20	19.2	ug/L	96			67	123	
	Chlorobenzene	20	19.0	ug/L	95			82	109	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VN085620.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0203WBSD01	Vinyl chloride	20	18.9	ug/L	95	5		65	117	20
	1,1-Dichloroethene	20	18.1	ug/L	91	6		74	110	20
	2-Butanone	100	94.6	ug/L	95	7		65	122	20
	Carbon Tetrachloride	20	17.8	ug/L	89	1		77	113	20
	Chloroform	20	19.8	ug/L	99	4		79	113	20
	Benzene	20	18.8	ug/L	94	1		82	109	20
	1,2-Dichloroethane	20	17.5	ug/L	88	2		80	115	20
	Trichloroethene	20	18.2	ug/L	91	1		77	113	20
	Tetrachloroethene	20	19.1	ug/L	96	0		67	123	20
	Chlorobenzene	20	19.6	ug/L	98	3		82	109	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VX044805.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0203WBS01	Vinyl chloride	20	20.2	ug/L	101			65	117	
	1,1-Dichloroethene	20	16.8	ug/L	84			74	110	
	2-Butanone	100	110	ug/L	110			65	122	
	Carbon Tetrachloride	20	17.6	ug/L	88			77	113	
	Chloroform	20	19.3	ug/L	97			79	113	
	Benzene	20	20.7	ug/L	104			82	109	
	1,2-Dichloroethane	20	18.0	ug/L	90			80	115	
	Trichloroethene	20	19.4	ug/L	97			77	113	
	Tetrachloroethene	20	18.9	ug/L	95			67	123	
	Chlorobenzene	20	19.9	ug/L	100			82	109	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0203WBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VN085618.D Lab Sample ID: VN0203WBL01

Date Analyzed: 02/03/2025 Time Analyzed: 13:34

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0203WBS01	VN0203WBS01	VN085619.D	02/03/2025
VN0203WBSD01	VN0203WBSD01	VN085620.D	02/03/2025
JPP-46.2-012925	Q1232-02	VN085633.D	02/03/2025
JPP-42.1-012925	Q1232-10	VN085642.D	02/03/2025

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0203WBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VX044804.D Lab Sample ID: VX0203WBL01

Date Analyzed: 02/03/2025 Time Analyzed: 10:44

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0203WBS01	VX0203WBS01	VX044805.D	02/03/2025
JPP-46.1-012925	Q1232-06	VX044816.D	02/03/2025
JPP-42.2-012925	Q1232-14	VX044818.D	02/03/2025
JPP-51.1-012925	Q1232-18	VX044819.D	02/03/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VN085437.D BFB Injection Date: 01/14/2025

Instrument ID: MSVOA_N BFB Injection Time: 14:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	58
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	1.4 (1.8) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	74.1 (97.4) 1
177	5.0 - 9.0% of mass 176	4.9 (6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN085438.D	01/14/2025	14:56
VSTDICCC050	VSTDICCC050	VN085439.D	01/14/2025	15:19
VSTDICC020	VSTDICC020	VN085440.D	01/14/2025	15:43
VSTDICC010	VSTDICC010	VN085441.D	01/14/2025	16:07
VSTDICC005	VSTDICC005	VN085442.D	01/14/2025	16:31
VSTDICC001	VSTDICC001	VN085443.D	01/14/2025	17:19

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VN085616.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_N BFB Injection Time: 12:23

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	54.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.4 (1.9) 1
174	50.0 - 100.0% of mass 95	76.2
175	5.0 - 9.0% of mass 174	5.5 (7.2) 1
176	95.0 - 101.0% of mass 174	75 (98.4) 1
177	5.0 - 9.0% of mass 176	5.1 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN085617.D	02/03/2025	12:56
VN0203WBL01	VN0203WBL01	VN085618.D	02/03/2025	13:34
VN0203WBS01	VN0203WBS01	VN085619.D	02/03/2025	13:58
VN0203WBSD01	VN0203WBSD01	VN085620.D	02/03/2025	14:22
JPP-46.2-012925	Q1232-02	VN085633.D	02/03/2025	19:37
JPP-42.1-012925	Q1232-10	VN085642.D	02/03/2025	23:14

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VX044647.D BFB Injection Date: 01/15/2025

Instrument ID: MSVOA_X BFB Injection Time: 09:30

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	50.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.6 (0.9) 1
174	50.0 - 100.0% of mass 95	67.1
175	5.0 - 9.0% of mass 174	4.9 (7.3) 1
176	95.0 - 101.0% of mass 174	64.4 (96) 1
177	5.0 - 9.0% of mass 176	4.3 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VX044648.D	01/15/2025	10:31
VSTDICC005	VSTDICC005	VX044649.D	01/15/2025	11:17
VSTDICC020	VSTDICC020	VX044650.D	01/15/2025	11:40
VSTDICCC050	VSTDICCC050	VX044651.D	01/15/2025	12:02
VSTDICC100	VSTDICC100	VX044652.D	01/15/2025	13:14
VSTDICC150	VSTDICC150	VX044653.D	01/15/2025	13:37

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VX044801.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_X BFB Injection Time: 08:12

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	51.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	77.6
175	5.0 - 9.0% of mass 174	5.9 (7.6) 1
176	95.0 - 101.0% of mass 174	74.5 (96.1) 1
177	5.0 - 9.0% of mass 176	4.9 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX044802.D	02/03/2025	09:52
VX0203WBL01	VX0203WBL01	VX044804.D	02/03/2025	10:44
VX0203WBS01	VX0203WBS01	VX044805.D	02/03/2025	11:07
JPP-46.1-012925	Q1232-06	VX044816.D	02/03/2025	15:45
JPP-42.2-012925	Q1232-14	VX044818.D	02/03/2025	16:32
JPP-51.1-012925	Q1232-18	VX044819.D	02/03/2025	16:55

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VN085617.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_N Time Analyzed: 12:56

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	193909	8.22	331362	9.10	301323	11.87
UPPER LIMIT	387818	8.718	662724	9.6	602646	12.365
LOWER LIMIT	96954.5	7.718	165681	8.6	150662	11.365
EPA SAMPLE NO.						
JPP-46.2-012925	163195	8.22	347669	9.10	325913	11.87
JPP-42.1-012925	193386	8.22	384666	9.10	362979	11.87
VN0203WBL01	183958	8.22	354826	9.10	307130	11.87
VN0203WBS01	188870	8.22	327054	9.10	287245	11.87
VN0203WBSD01	177381	8.22	316818	9.10	277592	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VN085617.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_N Time Analyzed: 12:56

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	152662	13.788				
UPPER LIMIT	305324	14.288				
LOWER LIMIT	76331	13.288				
EPA SAMPLE NO.						
JPP-46.2-012925	109751	13.79				
JPP-42.1-012925	158909	13.79				
VN0203WBL01	111992	13.79				
VN0203WBS01	141185	13.79				
VN0203WBSD01	132351	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VX044802.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_X Time Analyzed: 09:52

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	162430	5.54	297715	6.75	252415	10.05
UPPER LIMIT	324860	6.038	595430	7.251	504830	10.549
LOWER LIMIT	81215	5.038	148858	6.251	126208	9.549
EPA SAMPLE NO.						
JPP-46.1-012925	117794	5.54	241488	6.76	213988	10.05
JPP-42.2-012925	118473	5.55	237156	6.76	210118	10.05
JPP-51.1-012925	115498	5.55	232958	6.76	204621	10.05
VX0203WBL01	124993	5.54	257688	6.76	232979	10.05
VX0203WBS01	151779	5.54	276067	6.76	242310	10.05

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: VX044802.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_X Time Analyzed: 09:52

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	101849	12.018				
UPPER LIMIT	203698	12.518				
LOWER LIMIT	50924.5	11.518				
EPA SAMPLE NO.						
JPP-46.1-012925	91814	12.02				
JPP-42.2-012925	90092	12.02				
JPP-51.1-012925	85623	12.02				
VX0203WBL01	100905	12.02				
VX0203WBS01	107943	12.02				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBL01	SDG No.:	Q1232
Lab Sample ID:	VN0203WBL01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085618.D	1		02/03/25 13:34	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.4		74 - 125	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	50.1		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		77 - 121	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	184000	8.224			
540-36-3	1,4-Difluorobenzene	355000	9.1			
3114-55-4	Chlorobenzene-d5	307000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
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Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VX0203WBL01	SDG No.:	Q1232
Lab Sample ID:	VX0203WBL01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044804.D	1		02/03/25 10:44	VX020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.6		74 - 125	97%	SPK: 50
1868-53-7	Dibromofluoromethane	50.1		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	55.2		86 - 113	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.9		77 - 121	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	125000	5.544			
540-36-3	1,4-Difluorobenzene	258000	6.757			
3114-55-4	Chlorobenzene-d5	233000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	101000	12.018			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBS01	SDG No.:	Q1232
Lab Sample ID:	VN0203WBS01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085619.D	1		02/03/25 13:58	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.0		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	17.3		0.26	5.00	ug/L
78-93-3	2-Butanone	88.6		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.5		0.25	5.00	ug/L
67-66-3	Chloroform	19.0		0.26	5.00	ug/L
71-43-2	Benzene	18.6		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	17.2		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.4		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.0		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	54.6		86 - 113	109%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		77 - 121	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	189000	8.224			
540-36-3	1,4-Difluorobenzene	327000	9.1			
3114-55-4	Chlorobenzene-d5	287000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	141000	13.788			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VX0203WBS01	SDG No.:	Q1232
Lab Sample ID:	VX0203WBS01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044805.D	1		02/03/25 11:07	VX020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	20.2		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	16.8		0.26	5.00	ug/L
78-93-3	2-Butanone	110		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.6		0.25	5.00	ug/L
67-66-3	Chloroform	19.3		0.26	5.00	ug/L
71-43-2	Benzene	20.7		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	18.0		0.24	5.00	ug/L
79-01-6	Trichloroethene	19.4		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	18.9		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.9		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	43.1		74 - 125	86%	SPK: 50
1868-53-7	Dibromofluoromethane	46.5		75 - 124	93%	SPK: 50
2037-26-5	Toluene-d8	50.2		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		77 - 121	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	152000	5.544			
540-36-3	1,4-Difluorobenzene	276000	6.757			
3114-55-4	Chlorobenzene-d5	242000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	108000	12.018			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBSD01	SDG No.:	Q1232
Lab Sample ID:	VN0203WBSD01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085620.D	1		02/03/25 14:22	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.9		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.26	5.00	ug/L
78-93-3	2-Butanone	94.6		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.8		0.25	5.00	ug/L
67-66-3	Chloroform	19.8		0.26	5.00	ug/L
71-43-2	Benzene	18.8		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	17.5		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.2		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.6		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.0		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	51.7		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	177000	8.224			
540-36-3	1,4-Difluorobenzene	317000	9.1			
3114-55-4	Chlorobenzene-d5	278000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	132000	13.788			

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CALIBRATION SUMMARY

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_N Calibration Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN085438.D RRF050 = VN085439.D RRF020 = VN085440.D
RRF010 = VN085441.D RRF005 = VN085442.D RRF001 = VN085443.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Vinyl Chloride	0.697	0.686	0.727	0.711	0.781	0.819	0.737	7.1
1,1-Dichloroethene	0.548	0.533	0.556	0.526	0.559	0.497	0.537	4.3
2-Butanone	0.378	0.390	0.398	0.363	0.387	0.386	0.384	3.1
Carbon Tetrachloride	0.574	0.530	0.579	0.529	0.565	0.567	0.557	4
Chloroform	1.197	1.175	1.241	1.169	1.253	1.273	1.218	3.6
Benzene	1.551	1.449	1.527	1.376	1.474	1.400	1.463	4.7
1,2-Dichloroethane	0.569	0.547	0.575	0.522	0.574	0.517	0.551	4.8
Trichloroethene	0.362	0.324	0.352	0.310	0.343	0.352	0.341	5.8
Tetrachloroethene	0.351	0.322	0.365	0.338	0.346	0.323	0.341	4.9
Chlorobenzene	1.133	1.076	1.154	1.047	1.110	1.051	1.095	4
1,2-Dichloroethane-d4	0.774	0.831	0.754	0.762	0.914		0.807	8.3
Dibromofluoromethane	0.359	0.358	0.335	0.310	0.373		0.347	7.1
Toluene-d8	1.339	1.267	1.207	1.076	1.274		1.232	8.1
4-Bromofluorobenzene	0.475	0.449	0.410	0.357	0.417		0.422	10.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_X Calibration Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Calibration Time(s): 10:31 13:37

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX044648.D RRF005 = VX044649.D RRF020 = VX044650.D
RRF050 = VX044651.D RRF100 = VX044652.D RRF150 = VX044653.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Vinyl Chloride	0.801	0.681	0.681	0.702	0.699	0.749	0.719	6.6
1,1-Dichloroethene	0.638	0.546	0.572	0.566	0.571	0.618	0.585	6
2-Butanone	0.451	0.444	0.444	0.426	0.449	0.450	0.444	2.1
Carbon Tetrachloride	0.585	0.503	0.468	0.460	0.465	0.502	0.497	9.4
Chloroform	1.261	1.226	1.185	1.142	1.095	1.206	1.186	5
Benzene	1.517	1.376	1.364	1.306	1.274	1.384	1.370	6.1
1,2-Dichloroethane	0.552	0.494	0.491	0.477	0.473	0.513	0.500	5.8
Trichloroethene	0.338	0.319	0.324	0.316	0.324	0.355	0.329	4.5
Tetrachloroethene	0.346	0.309	0.299	0.296	0.308	0.326	0.314	5.9
Chlorobenzene	1.178	1.085	1.036	1.008	0.998	1.067	1.062	6.2
1,2-Dichloroethane-d4		0.863	0.691	0.745	0.689	0.785	0.755	9.6
Dibromofluoromethane		0.355	0.289	0.318	0.293	0.333	0.318	8.8
Toluene-d8		1.270	1.051	1.111	1.001	1.104	1.108	9.1
4-Bromofluorobenzene		0.445	0.394	0.421	0.383	0.421	0.413	6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_N Calibration Date/Time: 02/03/2025 12:56

Lab File ID: VN085617.D Init. Calib. Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.737	0.636		-13.7	20
1,1-Dichloroethene	0.537	0.488		-9.13	20
2-Butanone	0.384	0.336		-12.5	20
Carbon Tetrachloride	0.557	0.512		-8.08	20
Chloroform	1.218	1.179		-3.2	20
Benzene	1.463	1.422		-2.8	20
1,2-Dichloroethane	0.551	0.500		-9.26	20
Trichloroethene	0.341	0.329		-3.52	20
Tetrachloroethene	0.341	0.330		-3.23	20
Chlorobenzene	1.095	1.101	0.3	0.55	20
1,2-Dichloroethane-d4	0.807	0.719		-10.9	20
Dibromofluoromethane	0.347	0.346		-0.29	20
Toluene-d8	1.232	1.296		5.2	20
4-Bromofluorobenzene	0.422	0.438		3.79	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: MSVOA_X Calibration Date/Time: 02/03/2025 09:52

Lab File ID: VX044802.D Init. Calib. Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:31 13:37

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.719	0.766		6.54	20
1,1-Dichloroethene	0.585	0.636		8.72	20
2-Butanone	0.444	0.459		3.38	20
Carbon Tetrachloride	0.497	0.454		-8.65	20
Chloroform	1.186	1.162		-2.02	20
Benzene	1.370	1.440		5.11	20
1,2-Dichloroethane	0.500	0.454		-9.2	20
Trichloroethene	0.329	0.337		2.43	20
Tetrachloroethene	0.314	0.312		-0.64	20
Chlorobenzene	1.062	1.101	0.3	3.67	20
1,2-Dichloroethane-d4	0.755	0.726		-3.84	20
Dibromofluoromethane	0.318	0.333		4.72	20
Toluene-d8	1.108	1.249		12.73	20
4-Bromofluorobenzene	0.413	0.437		5.81	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	

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LAB CHRONICLE

Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	

SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-01	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	89.7 Decanted:
Sample Wt/Vol:	8.31 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031435.D	1	01/31/25 20:45	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	30.0	U	5.00	30.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.0		50 - 150	95%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-05	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	93.8 Decanted:
Sample Wt/Vol:	13.81 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031443.D	1	02/03/25 13:20	FB020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	17.0	U	3.00	17.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	14.8		50 - 150	74%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-09	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	88.6 Decanted:
Sample Wt/Vol:	10.94 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031444.D	1	02/03/25 13:47	FB020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	23.0	U	4.00	23.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	15.4		50 - 150	77%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-13	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	92.1 Decanted:
Sample Wt/Vol:	11.46 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031445.D	1	02/03/25 14:14	FB020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	21.0	U	4.00	21.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	16.0		50 - 150	80%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-17	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	94.4 Decanted:
Sample Wt/Vol:	13.25 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031446.D	1	02/03/25 14:40	FB020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	18.0	U	3.00	18.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	17.1		50 - 150	86%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBF0131S1	103				0
BSF0131S1	98				0
BSF0131S2	91				0
JPP-46.2-012925	95				0
VBF0203S1	92				0
BSF0203S1	98				0
JPP-46.1-012925	74				0
JPP-42.1-012925	77				0
JPP-42.2-012925	80				0
JPP-51.1-012925	86				0

	QC LIMITS
AAA-TFT	For Water : 50-150 For Soil : 50-150

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1232 **SAS No :** Q1232 **SDG No:** Q1232

Matrix Spike - EPA Sample No : BSF0131S1 **Datafile:** FB031415.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	173	96	50-150

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1232 **SAS No :** Q1232 **SDG No:** Q1232

Matrix Spike - EPA Sample No : BSF0131S2 **Datafile:** FB031420.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	168	93	50-150

LCS/LCSD % Recovery RPD : 3.0

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1232 **SAS No :** Q1232 **SDG No:** Q1232

Matrix Spike - EPA Sample No : BSF0203S1 **Datafile:** FB031442.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	142	79	50-150

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METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0131S1

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: FB031413.D Lab Sample ID: VBF0131S1

Date Analyzed: 01/31/25 Time Analyzed: 9:41

GC Column: RTX-502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: FB

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0131S1	BSF0131S1	FB031415.D	01/31/25
BSF0131S2	BSF0131S2	FB031420.D	01/31/25
JPP-46.2-012925	Q1232-01	FB031435.D	01/31/25

COMMENTS:

Alliance TECHNICAL GROUP
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METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0203S1

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: FB031440.D Lab Sample ID: VBF0203S1

Date Analyzed: 02/03/25 Time Analyzed: 11:47

GC Column: RTX-502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: FB

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0203S1	BSF0203S1	FB031442.D	02/03/25
JPP-46.1-012925	Q1232-05	FB031443.D	02/03/25
JPP-42.1-012925	Q1232-09	FB031444.D	02/03/25
JPP-42.2-012925	Q1232-13	FB031445.D	02/03/25
JPP-51.1-012925	Q1232-17	FB031446.D	02/03/25

COMMENTS:

QC SAMPLE DATA

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VBF0131S1	SDG No.:	Q1232
Lab Sample ID:	VBF0131S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031413.D	1	01/31/25 9:41	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	45.0	U	8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	20.6		50 - 150	103%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VBF0203S1	SDG No.:	Q1232
Lab Sample ID:	VBF0203S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031440.D	1	02/03/25 11:47	FB020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	45.0	U	8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.5		50 - 150	92%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0131S1	SDG No.:	Q1232
Lab Sample ID:	BSF0131S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031415.D	1	01/31/25 10:47	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	173		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.5		50 - 150	98%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0203S1	SDG No.:	Q1232
Lab Sample ID:	BSF0203S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031442.D	1	02/03/25 12:40	FB020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	142		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.5		50 - 150	98%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0131S2	SDG No.:	Q1232
Lab Sample ID:	BSF0131S2	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031420.D	1	01/31/25 13:12	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	168		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.3		50 - 150	91%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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GASOLINE RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Calibration Sequence : FB011525		Test : Gasoline Range Organics	
Concentration (PPB)	**Area Count**	**Reference Factor**	**File ID**
45	1619248	35983	FB031307.D
90	2849383	31660	FB031308.D
180	5927461	32930	FB031309.D
450	17402832	38673	FB031310.D
900	36014388	40016	FB031311.D
AVG RF : 35852	**% RSD : 10.001**		**AVG RT : 8.7886**

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FB031412.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6268334	34824	35852	2.867

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FB031421.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5823973	32355	35852	9.754

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FB031432.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5733618	31853	35852	11.154

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FB031438.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5457080	30317	35852	15.438

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FB031439.D Analyst Name: YP/AJ Analyst Date: 02-03-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5240743	29115	35852	18.791

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FB031448.D Analyst Name: YP/AJ Analyst Date: 02-03-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5465969	30366	35852	15.302

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_B

GC Column: RTX-502.2 **ID:** 0.53 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION **8.7886**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 9:03	FB031412.D	8.786	
VBF0131S1	VBF0131S1	31 Jan 2025 9:41	FB031413.D	8.789	
BSF0131S1	BSF0131S1	31 Jan 2025 10:47	FB031415.D	8.791	
BSF0131S2	BSF0131S2	31 Jan 2025 13:12	FB031420.D	8.792	
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 13:38	FB031421.D	8.791	
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 18:58	FB031432.D	8.793	
JPP-46.2-012925	Q1232-01	31 Jan 2025 20:45	FB031435.D	8.794	
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 22:32	FB031438.D	8.794	
20 PPB GRO STD	20 PPB GRO STD	3 Feb 2025 11:08	FB031439.D	8.789	
VBF0203S1	VBF0203S1	3 Feb 2025 11:47	FB031440.D	8.789	
BSF0203S1	BSF0203S1	3 Feb 2025 12:40	FB031442.D	8.792	
JPP-46.1-012925	Q1232-05	3 Feb 2025 13:20	FB031443.D	8.791	
JPP-42.1-012925	Q1232-09	3 Feb 2025 13:47	FB031444.D	8.792	
JPP-42.2-012925	Q1232-13	3 Feb 2025 14:14	FB031445.D	8.793	
JPP-51.1-012925	Q1232-17	3 Feb 2025 14:40	FB031446.D	8.792	
20 PPB GRO STD	20 PPB GRO STD	3 Feb 2025 15:34	FB031448.D	8.792	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	8.6886	8.8886

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/04/25	
Q1232-03DL	**JPP-46.2-012925DL**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/04/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/07/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/07/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/07/25	
Q1232-15DL	**JPP-42.2-012925DL**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/10/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/08/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**

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LAB CHRONICLE

TCLP BNA	8270E	01/31/25	02/03/25

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**JPP-46.2-012925**								
Q1232-03	JPP-46.2-012925	SOIL	Naphthalene		110.000	J	92.4	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Acenaphthene		310.000		90.8	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Dibenzofuran		180.000	J	94.5	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Fluorene		300.000		95.7	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Phenanthrene		4,400.000	E	94	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Anthracene		1,100.000		94.5	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Carbazole		250.000		89.9	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Fluoranthene		8,100.000	E	91.4	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Pyrene		6,000.000	E	92.9	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo(a)anthracene		4,300.000	E	90.3	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Chrysene		3,800.000	E	89	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Bis(2-ethylhexyl)phthalate		130.000	J	100	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo(b)fluoranthene		5,100.000	E	90.8	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo(k)fluoranthene		2,100.000		92.4	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo(a)pyrene		4,600.000	E	100	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Indeno(1,2,3-cd)pyrene		2,000.000		87.4	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Dibenzo(a,h)anthracene		600.000		90.9	190	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo(g,h,i)perylene		2,400.000		89.6	190	ug/Kg
			Total Svoc :		**45,780.00**				
Q1232-03	JPP-46.2-012925	SOIL	11H-Benzo[a]fluoren-11-one	*	100.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	11H-Benzo[b]fluorene	*	210.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	1-Isopropenylnaphthalene	*	130.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	4H-Cyclopenta[def]phenanthrene	*	270.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo[b]naphtho[2,1-d]thiophene	*	110.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo[b]triphenylene	*	500.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzo[e]pyrene	*	870.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Benzophenone	*	380.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Cyclopenta[cd]pyrene	*	130.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Dibenzo[def,mno]chrysene	*	730.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Fluoranthene, 2-methyl-	*	150.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Phenanthrene, 2-methyl-	*	160.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Phenanthrene, 4-methyl-	*	110.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Picene	*	380.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Pyrene, 1-methyl-	*	180.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Supraene	*	420.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	unknown13.739	*	110.000	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	unknown14.733	*	250.000	J	0	0	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1232-03	JPP-46.2-012925	SOIL	Naphthalene, 2,3-dimethyl-	*	97.400	J	0	0	ug/Kg
Q1232-03	JPP-46.2-012925	SOIL	Perylene	*	3,400.000	J	0	0	ug/Kg
			Total Tics :		**8,687.40**				
			Total Concentration:		**54,467.40**				
Client ID :	**JPP-46.2-012925DL**								
Q1232-03DL	JPP-46.2-012925DL	SOIL	Phenanthrene		4,700.000	D	470	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Anthracene		1,100.000	D	470	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Fluoranthene		9,000.000	D	460	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Pyrene		7,100.000	D	460	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Benzo(a)anthracene		4,200.000	D	450	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Chrysene		3,900.000	D	440	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Benzo(b)fluoranthene		4,600.000	D	450	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Benzo(k)fluoranthene		2,000.000	D	460	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Benzo(a)pyrene		4,600.000	D	520	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Indeno(1,2,3-cd)pyrene		2,200.000	D	440	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Dibenzo(a,h)anthracene		690.000	JD	450	950	ug/Kg
Q1232-03DL	JPP-46.2-012925DL	SOIL	Benzo(g,h,i)perylene		2,500.000	D	450	950	ug/Kg
			Total Svoc :		**46,590.00**				
			Total Concentration:		**46,590.00**				
Client ID :	**JPP-46.1-012925**								
Q1232-07	JPP-46.1-012925	SOIL	Naphthalene		180.000	J	180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Acenaphthene		380.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Dibenzofuran		260.000	J	180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Fluorene		500.000		180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Phenanthrene		3,700.000		180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Anthracene		1,300.000		180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Carbazole		420.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Fluoranthene		3,900.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Pyrene		3,700.000		180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzo(a)anthracene		2,200.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Chrysene		1,700.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzo(b)fluoranthene		1,900.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzo(k)fluoranthene		810.000		180	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzo(a)pyrene		1,700.000		200	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Indeno(1,2,3-cd)pyrene		690.000		170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Dibenzo(a,h)anthracene		250.000	J	170	360	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzo(g,h,i)perylene		760.000		170	360	ug/Kg
			Total Svoc :		**24,350.00**				
Q1232-07	JPP-46.1-012925	SOIL	11H-Benzo[b]fluorene	*	400.000	J	0	0	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1232-07	JPP-46.1-012925	SOIL	4H-Cyclopenta[def]phenanthrene	*	440.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Cyclohexanone	*	200.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Fluoranthene, 2-methyl-	*	250.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Anthracene, 2-methyl-	*	180.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzo[e]pyrene	*	1,000.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Benzophenone	*	360.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Pyrene, 1-methyl-	*	200.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	unknown13.192	*	220.000	J	0	0	ug/Kg
Q1232-07	JPP-46.1-012925	SOIL	Phenanthrene, 2-methyl-	*	240.000	J	0	0	ug/Kg
			Total Tics :		**3,490.00**				
			Total Concentration:		**27,840.00**				
Client ID :	**JPP-42.1-012925**								
Q1232-11	JPP-42.1-012925	SOIL	Acenaphthene		250.000	J	180	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Fluorene		210.000	J	190	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Phenanthrene		2,100.000		190	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Anthracene		630.000		190	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Fluoranthene		2,700.000		190	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Pyrene		2,900.000		190	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Benzo(a)anthracene		1,500.000		180	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Chrysene		1,200.000		180	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Benzo(b)fluoranthene		1,400.000		180	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Benzo(k)fluoranthene		800.000		190	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Benzo(a)pyrene		1,400.000		210	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Indeno(1,2,3-cd)pyrene		590.000		180	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Dibenzo(a,h)anthracene		190.000	J	180	390	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Benzo(g,h,i)perylene		720.000		180	390	ug/Kg
			Total Svoc :		**16,590.00**				
Q1232-11	JPP-42.1-012925	SOIL	Anthracene, 2-methyl-	*	180.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	(1S,4aS,4bS,7S,8aS,10aS)-7-Isopı	*	260.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	11H-Benzo[b]fluorene	*	200.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	530.000	AB	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	4b,8-Dimethyl-2-isopropylphenan	*	380.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	4H-Cyclopenta[def]phenanthrene	*	810.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Dibenzothiophene	*	230.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Dodecane	*	220.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Eicosane	*	350.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Benzophenone	*	350.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Pyrene, 4,5-dihydro-	*	160.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Retene	*	800.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Tetradecane	*	250.000	J	0	0	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1232-11	JPP-42.1-012925	SOIL	Tridecane	*	250.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Undecane	*	260.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	unknown12.410	*	220.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Naphthalene, 2-phenyl-	*	250.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Phenanthrene, 1-methyl-	*	380.000	J	0	0	ug/Kg
Q1232-11	JPP-42.1-012925	SOIL	Phenanthrene, 2-methyl-	*	310.000	J	0	0	ug/Kg
			Total Tics :		**6,390.00**				
			Total Concentration:		**22,980.00**				
Client ID :	**JPP-42.2-012925**								
Q1232-15	JPP-42.2-012925	SOIL	Acenaphthene		180.000		86.8	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Dibenzofuran		100.000	J	90.3	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Fluorene		180.000		91.5	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Phenanthrene		2,200.000		89.9	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Anthracene		730.000		90.3	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Carbazole		86.600	J	85.9	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Fluoranthene		4,400.000	E	87.4	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Pyrene		4,600.000	E	88.8	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo(a)anthracene		2,900.000	E	86.3	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Chrysene		2,100.000		85	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Bis(2-ethylhexyl)phthalate		140.000	J	97.3	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo(b)fluoranthene		3,200.000	E	86.8	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo(k)fluoranthene		1,300.000		88.4	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo(a)pyrene		3,000.000	E	99.5	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Indeno(1,2,3-cd)pyrene		1,500.000		83.5	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Dibenzo(a,h)anthracene		450.000		86.9	180	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo(g,h,i)perylene		1,600.000		85.7	180	ug/Kg
			Total Svoc :		**28,666.60**				
Q1232-15	JPP-42.2-012925	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	120.000	AB	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	4H-Cyclopenta[def]phenanthrene	*	250.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo[b]naphtho[2,1-d]thiophene	*	78.800	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzo[e]pyrene	*	520.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzophenone	*	320.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Benzene, [1-(2,4-cyclopentadien-1	*	78.800	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Cyclopenta(cd)pyrene, 3,4-dihydr	*	77.700	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Naphthalene, 2,7-dimethyl-	*	120.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Naphthalene, 2-phenyl-	*	88.400	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Perylene	*	2,100.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Phenanthrene, 1-methyl-	*	130.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Phenanthrene, 2,5-dimethyl-	*	73.500	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Phenanthrene, 2-methyl-	*	79.500	J	0	0	ug/Kg

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1232-15	JPP-42.2-012925	SOIL	Pyrene, 1-methyl-	*	150.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	unknown12.404	*	76.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	11H-Benzo[a]fluorene	*	98.400	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	11H-Benzo[b]fluorene	*	190.000	J	0	0	ug/Kg
Q1232-15	JPP-42.2-012925	SOIL	Fluoranthene, 2-methyl-	*	130.000	J	0	0	ug/Kg
			Total Tics :		**4,681.10**				
			Total Concentration:		**33,347.70**				
Client ID :	**JPP-42.2-012925DL**								
Q1232-15DL	JPP-42.2-012925DL	SOIL	Phenanthrene		2,300.000	D	450	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Anthracene		760.000	JD	450	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Fluoranthene		4,600.000	D	440	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Pyrene		3,700.000	D	440	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Benzo(a)anthracene		2,800.000	D	430	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Chrysene		2,400.000	D	430	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Benzo(b)fluoranthene		3,300.000	D	430	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Benzo(k)fluoranthene		1,500.000	D	440	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Benzo(a)pyrene		3,100.000	D	500	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Indeno(1,2,3-cd)pyrene		1,300.000	D	420	910	ug/Kg
Q1232-15DL	JPP-42.2-012925DL	SOIL	Benzo(g,h,i)perylene		1,400.000	D	430	910	ug/Kg
			Total Svoc :		**27,160.00**				
			Total Concentration:		**27,160.00**				
Client ID :	**JPP-51.1-012925**								
Q1232-19	JPP-51.1-012925	SOIL	Acenaphthylene		180.000	J	180	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Acenaphthene		450.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Dibenzofuran		210.000	J	180	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Fluorene		340.000	J	180	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Phenanthrene		4,000.000		180	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Anthracene		1,100.000		180	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Carbazole		260.000	J	170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Fluoranthene		4,900.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Pyrene		5,400.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Benzo(a)anthracene		3,200.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Chrysene		2,700.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Bis(2-ethylhexyl)phthalate		280.000	J	190	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Benzo(b)fluoranthene		2,900.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Benzo(k)fluoranthene		1,500.000		170	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Benzo(a)pyrene		2,900.000		200	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Indeno(1,2,3-cd)pyrene		1,200.000		160	360	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Dibenzo(a,h)anthracene		430.000		170	360	ug/Kg

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1232-19	JPP-51.1-012925	SOIL	Benzo(g,h,i)perylene		1,400.000		170	360	ug/Kg
			Total Svoc :		**33,350.00**				
Q1232-19	JPP-51.1-012925	SOIL	11H-Benzo[a]fluorene	*	370.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	1H-Cyclopropa[l]phenanthrene,1a	*	970.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	3-Methyl-4-p-tolylhydrazono-2-py	*	280.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	4b,8-Dimethyl-2-isopropylphenan	*	500.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	4H-Cyclopenta[def]phenanthrene	*	1,700.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	9,10-Anthracenedione	*	240.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Anthracene, 1,2,3,4-tetrahydro-	*	300.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Benzo[e]pyrene	*	2,300.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Benzophenone	*	360.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Cyclopenta(def)phenanthrenone	*	430.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Dibenzothiophene	*	280.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Naphthalene, 1-phenyl-	*	240.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Naphthalene, 2-phenyl-	*	570.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Phenanthrene, 1-methyl-	*	740.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Phenanthrene, 2,5-dimethyl-	*	560.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Phenanthrene, 2-methyl-	*	390.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Pyrene, 1-methyl-	*	300.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	Tridecane, 3-methyl-	*	280.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	unknown12.016	*	330.000	J	0	0	ug/Kg
Q1232-19	JPP-51.1-012925	SOIL	unknown12.410	*	400.000	J	0	0	ug/Kg
			Total Tics :		**11,540.00**				
			Total Concentration:		**44,890.00**				

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141390.D	1	01/31/25 10:20	02/04/25 00:49	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	370	U	200	370	ug/Kg
108-95-2	Phenol	190	U	92.8	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	190	U	93.7	190	ug/Kg
95-57-8	2-Chlorophenol	190	U	93.5	190	ug/Kg
95-48-7	2-Methylphenol	190	U	90.2	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	190	U	100	190	ug/Kg
98-86-2	Acetophenone	190	UQ	97.3	190	ug/Kg
65794-96-9	3+4-Methylphenols	370	U	89.3	370	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	89.5	U	45.1	89.5	ug/Kg
67-72-1	Hexachloroethane	190	U	92.9	190	ug/Kg
98-95-3	Nitrobenzene	190	U	100	190	ug/Kg
78-59-1	Isophorone	190	U	94.7	190	ug/Kg
88-75-5	2-Nitrophenol	190	U	110	190	ug/Kg
105-67-9	2,4-Dimethylphenol	190	U	100	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	190	U	96.0	190	ug/Kg
120-83-2	2,4-Dichlorophenol	190	U	84.5	190	ug/Kg
91-20-3	Naphthalene	110	J	92.4	190	ug/Kg
106-47-8	4-Chloroaniline	190	U	92.4	190	ug/Kg
87-68-3	Hexachlorobutadiene	190	U	93.2	190	ug/Kg
105-60-2	Caprolactam	370	U	97.1	370	ug/Kg
59-50-7	4-Chloro-3-methylphenol	190	U	86.7	190	ug/Kg
91-57-6	2-Methylnaphthalene	190	U	92.3	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	370	UQ	170	370	ug/Kg
88-06-2	2,4,6-Trichlorophenol	190	U	79.9	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	190	U	82.8	190	ug/Kg
92-52-4	1,1-Biphenyl	190	U	97.8	190	ug/Kg
91-58-7	2-Chloronaphthalene	190	U	93.2	190	ug/Kg
88-74-4	2-Nitroaniline	190	U	110	190	ug/Kg
131-11-3	Dimethylphthalate	190	U	91.4	190	ug/Kg

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141390.D	1	01/31/25 10:20	02/04/25 00:49	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	190	U	96.8	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	190	U	93.1	190	ug/Kg
99-09-2	3-Nitroaniline	190	U	99.8	190	ug/Kg
83-32-9	Acenaphthene	310		90.8	190	ug/Kg
51-28-5	2,4-Dinitrophenol	370	U	270	370	ug/Kg
100-02-7	4-Nitrophenol	370	U	130	370	ug/Kg
132-64-9	Dibenzofuran	180	J	94.5	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	190	U	96.5	190	ug/Kg
84-66-2	Diethylphthalate	190	U	89.6	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	190	U	95.8	190	ug/Kg
86-73-7	Fluorene	300		95.7	190	ug/Kg
100-01-6	4-Nitroaniline	190	U	120	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	370	U	130	370	ug/Kg
86-30-6	n-Nitrosodiphenylamine	190	U	91.3	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	190	U	88.3	190	ug/Kg
118-74-1	Hexachlorobenzene	190	U	95.1	190	ug/Kg
1912-24-9	Atrazine	190	U	100	190	ug/Kg
87-86-5	Pentachlorophenol	370	U	86.5	370	ug/Kg
85-01-8	Phenanthrene	4400	E	94.0	190	ug/Kg
120-12-7	Anthracene	1100		94.5	190	ug/Kg
86-74-8	Carbazole	250		89.9	190	ug/Kg
84-74-2	Di-n-butylphthalate	190	U	94.3	190	ug/Kg
206-44-0	Fluoranthene	8100	E	91.4	190	ug/Kg
129-00-0	Pyrene	6000	E	92.9	190	ug/Kg
85-68-7	Butylbenzylphthalate	190	U	110	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	370	U	110	370	ug/Kg
56-55-3	Benzo(a)anthracene	4300	E	90.3	190	ug/Kg
218-01-9	Chrysene	3800	E	89.0	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	130	J	100	190	ug/Kg
117-84-0	Di-n-octyl phthalate	370	U	120	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	5100	E	90.8	190	ug/Kg

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141390.D	1	01/31/25 10:20	02/04/25 00:49	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	2100		92.4	190	ug/Kg
50-32-8	Benzo(a)pyrene	4600	E	100	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2000		87.4	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	600		90.9	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	2400		89.6	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	190	U	97.1	190	ug/Kg
123-91-1	1,4-Dioxane	190	U	120	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	190	U	83.6	190	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	87.2		18 - 112	58%	SPK: 150
13127-88-3	Phenol-d6	83.3		15 - 107	56%	SPK: 150
4165-60-0	Nitrobenzene-d5	63.4		18 - 107	63%	SPK: 100
321-60-8	2-Fluorobiphenyl	62.4		20 - 109	62%	SPK: 100
118-79-6	2,4,6-Tribromophenol	79.0		10 - 116	53%	SPK: 150
1718-51-0	Terphenyl-d14	45.3		10 - 105	45%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82600	6.793			
1146-65-2	Naphthalene-d8	314000	8.075			
15067-26-2	Acenaphthene-d10	148000	9.828			
1517-22-2	Phenanthrene-d10	202000	11.316			
1719-03-5	Chrysene-d12	155000	13.969			
1520-96-3	Perylene-d12	127000	15.416			
TENTATIVE IDENTIFIED COMPOUNDS						
000581-40-8	Naphthalene, 2,3-dimethyl-	97.4	J		9.49	ug/Kg
001855-47-6	1-Isopropenylnaphthalene	130	J		10.4	ug/Kg
000119-61-9	Benzophenone	380	J		10.5	ug/Kg
000832-64-4	Phenanthrene, 4-methyl-	110	J		11.8	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	160	J		11.9	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	270	J		11.9	ug/Kg
033543-31-6	Fluoranthene, 2-methyl-	150	J		13.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141390.D	1	01/31/25 10:20	02/04/25 00:49	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000243-17-4	11H-Benzo[b]fluorene	210	J		13.1	ug/Kg
002381-21-7	Pyrene, 1-methyl-	180	J		13.2	ug/Kg
000479-79-8	11H-Benzo[a]fluoren-11-one	100	J		13.6	ug/Kg
000239-35-0	Benzo[b]naphtho[2,1-d]thiophene	110	J		13.7	ug/Kg
	unknown13.739	110	J		13.7	ug/Kg
027208-37-3	Cyclopenta[cd]pyrene	130	J		13.8	ug/Kg
	unknown14.733	250	J		14.7	ug/Kg
007683-64-9	Supraene	420	J		14.8	ug/Kg
000192-97-2	Benzo[e]pyrene	870	J		15.1	ug/Kg
000198-55-0	Perylene	3400	J		15.3	ug/Kg
000215-58-7	Benzo[b]triphenylene	500	J		17.0	ug/Kg
000213-46-7	Picene	380	J		17.1	ug/Kg
000191-26-4	Dibenzo[def,mno]chrysene	730	J		17.5	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925DL	SDG No.:	Q1232
Lab Sample ID:	Q1232-03DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141426.D	5	01/31/25 10:20	02/04/25 23:04	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1800	UD	1000	1800	ug/Kg
108-95-2	Phenol	950	UD	460	950	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	950	UD	470	950	ug/Kg
95-57-8	2-Chlorophenol	950	UD	470	950	ug/Kg
95-48-7	2-Methylphenol	950	UD	450	950	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	950	UD	510	950	ug/Kg
98-86-2	Acetophenone	950	UDQ	490	950	ug/Kg
65794-96-9	3+4-Methylphenols	1800	UD	450	1800	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	450	UD	230	450	ug/Kg
67-72-1	Hexachloroethane	950	UD	460	950	ug/Kg
98-95-3	Nitrobenzene	950	UD	510	950	ug/Kg
78-59-1	Isophorone	950	UD	470	950	ug/Kg
88-75-5	2-Nitrophenol	950	UD	530	950	ug/Kg
105-67-9	2,4-Dimethylphenol	950	UD	520	950	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	950	UD	480	950	ug/Kg
120-83-2	2,4-Dichlorophenol	950	UD	420	950	ug/Kg
91-20-3	Naphthalene	950	UD	460	950	ug/Kg
106-47-8	4-Chloroaniline	950	UD	460	950	ug/Kg
87-68-3	Hexachlorobutadiene	950	UD	470	950	ug/Kg
105-60-2	Caprolactam	1800	UD	490	1800	ug/Kg
59-50-7	4-Chloro-3-methylphenol	950	UD	430	950	ug/Kg
91-57-6	2-Methylnaphthalene	950	UD	460	950	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1800	UDQ	870	1800	ug/Kg
88-06-2	2,4,6-Trichlorophenol	950	UD	400	950	ug/Kg
95-95-4	2,4,5-Trichlorophenol	950	UD	410	950	ug/Kg
92-52-4	1,1-Biphenyl	950	UD	490	950	ug/Kg
91-58-7	2-Chloronaphthalene	950	UD	470	950	ug/Kg
88-74-4	2-Nitroaniline	950	UD	530	950	ug/Kg
131-11-3	Dimethylphthalate	950	UD	460	950	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925DL	SDG No.:	Q1232
Lab Sample ID:	Q1232-03DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141426.D	5	01/31/25 10:20	02/04/25 23:04	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	950	UD	480	950	ug/Kg
606-20-2	2,6-Dinitrotoluene	950	UD	470	950	ug/Kg
99-09-2	3-Nitroaniline	950	UD	500	950	ug/Kg
83-32-9	Acenaphthene	950	UD	450	950	ug/Kg
51-28-5	2,4-Dinitrophenol	1800	UD	1400	1800	ug/Kg
100-02-7	4-Nitrophenol	1800	UD	650	1800	ug/Kg
132-64-9	Dibenzofuran	950	UD	470	950	ug/Kg
121-14-2	2,4-Dinitrotoluene	950	UD	480	950	ug/Kg
84-66-2	Diethylphthalate	950	UD	450	950	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	950	UD	480	950	ug/Kg
86-73-7	Fluorene	950	UD	480	950	ug/Kg
100-01-6	4-Nitroaniline	950	UD	600	950	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1800	UD	650	1800	ug/Kg
86-30-6	n-Nitrosodiphenylamine	950	UD	460	950	ug/Kg
101-55-3	4-Bromophenyl-phenylether	950	UD	440	950	ug/Kg
118-74-1	Hexachlorobenzene	950	UD	480	950	ug/Kg
1912-24-9	Atrazine	950	UD	510	950	ug/Kg
87-86-5	Pentachlorophenol	1800	UD	430	1800	ug/Kg
85-01-8	Phenanthrene	4700	D	470	950	ug/Kg
120-12-7	Anthracene	1100	D	470	950	ug/Kg
86-74-8	Carbazole	950	UD	450	950	ug/Kg
84-74-2	Di-n-butylphthalate	950	UD	470	950	ug/Kg
206-44-0	Fluoranthene	9000	D	460	950	ug/Kg
129-00-0	Pyrene	7100	D	460	950	ug/Kg
85-68-7	Butylbenzylphthalate	950	UD	540	950	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1800	UD	550	1800	ug/Kg
56-55-3	Benzo(a)anthracene	4200	D	450	950	ug/Kg
218-01-9	Chrysene	3900	D	440	950	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	950	UD	510	950	ug/Kg
117-84-0	Di-n-octyl phthalate	1800	UD	620	1800	ug/Kg
205-99-2	Benzo(b)fluoranthene	4600	D	450	950	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925DL	SDG No.:	Q1232
Lab Sample ID:	Q1232-03DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141426.D	5	01/31/25 10:20	02/04/25 23:04	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	2000	D	460	950	ug/Kg
50-32-8	Benzo(a)pyrene	4600	D	520	950	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2200	D	440	950	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	690	JD	450	950	ug/Kg
191-24-2	Benzo(g,h,i)perylene	2500	D	450	950	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	950	UD	490	950	ug/Kg
123-91-1	1,4-Dioxane	950	UD	620	950	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	950	UD	420	950	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	82.1		18 - 112	55%	SPK: 150
13127-88-3	Phenol-d6	83.1		15 - 107	55%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.2		18 - 107	57%	SPK: 100
321-60-8	2-Fluorobiphenyl	56.3		20 - 109	56%	SPK: 100
118-79-6	2,4,6-Tribromophenol	78.8		10 - 116	53%	SPK: 150
1718-51-0	Terphenyl-d14	51.6		10 - 105	52%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	75600	6.787			
1146-65-2	Naphthalene-d8	307000	8.069			
15067-26-2	Acenaphthene-d10	169000	9.822			
1517-22-2	Phenanthrene-d10	294000	11.31			
1719-03-5	Chrysene-d12	204000	13.957			
1520-96-3	Perylene-d12	215000	15.415			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	94
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141523.D	2	01/31/25 10:20	02/07/25 22:07	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	700	U	390	700	ug/Kg
108-95-2	Phenol	360	U	180	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	360	U	180	360	ug/Kg
95-57-8	2-Chlorophenol	360	U	180	360	ug/Kg
95-48-7	2-Methylphenol	360	U	170	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	360	U	190	360	ug/Kg
98-86-2	Acetophenone	360	UQ	180	360	ug/Kg
65794-96-9	3+4-Methylphenols	700	U	170	700	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	170	U	85.7	170	ug/Kg
67-72-1	Hexachloroethane	360	U	180	360	ug/Kg
98-95-3	Nitrobenzene	360	U	190	360	ug/Kg
78-59-1	Isophorone	360	U	180	360	ug/Kg
88-75-5	2-Nitrophenol	360	U	200	360	ug/Kg
105-67-9	2,4-Dimethylphenol	360	U	200	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	360	U	180	360	ug/Kg
120-83-2	2,4-Dichlorophenol	360	U	160	360	ug/Kg
91-20-3	Naphthalene	180	J	180	360	ug/Kg
106-47-8	4-Chloroaniline	360	U	180	360	ug/Kg
87-68-3	Hexachlorobutadiene	360	U	180	360	ug/Kg
105-60-2	Caprolactam	700	U	180	700	ug/Kg
59-50-7	4-Chloro-3-methylphenol	360	U	160	360	ug/Kg
91-57-6	2-Methylnaphthalene	360	U	180	360	ug/Kg
77-47-4	Hexachlorocyclopentadiene	700	UQ	330	700	ug/Kg
88-06-2	2,4,6-Trichlorophenol	360	U	150	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	360	U	160	360	ug/Kg
92-52-4	1,1-Biphenyl	360	U	190	360	ug/Kg
91-58-7	2-Chloronaphthalene	360	U	180	360	ug/Kg
88-74-4	2-Nitroaniline	360	U	200	360	ug/Kg
131-11-3	Dimethylphthalate	360	U	170	360	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	94
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141523.D	2	01/31/25 10:20	02/07/25 22:07	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	360	U	180	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	360	U	180	360	ug/Kg
99-09-2	3-Nitroaniline	360	U	190	360	ug/Kg
83-32-9	Acenaphthene	380		170	360	ug/Kg
51-28-5	2,4-Dinitrophenol	700	U	520	700	ug/Kg
100-02-7	4-Nitrophenol	700	U	250	700	ug/Kg
132-64-9	Dibenzofuran	260	J	180	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	360	U	180	360	ug/Kg
84-66-2	Diethylphthalate	360	U	170	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	360	U	180	360	ug/Kg
86-73-7	Fluorene	500		180	360	ug/Kg
100-01-6	4-Nitroaniline	360	U	230	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	700	U	250	700	ug/Kg
86-30-6	n-Nitrosodiphenylamine	360	U	170	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	360	U	170	360	ug/Kg
118-74-1	Hexachlorobenzene	360	U	180	360	ug/Kg
1912-24-9	Atrazine	360	U	190	360	ug/Kg
87-86-5	Pentachlorophenol	700	U	160	700	ug/Kg
85-01-8	Phenanthrene	3700		180	360	ug/Kg
120-12-7	Anthracene	1300		180	360	ug/Kg
86-74-8	Carbazole	420		170	360	ug/Kg
84-74-2	Di-n-butylphthalate	360	U	180	360	ug/Kg
206-44-0	Fluoranthene	3900		170	360	ug/Kg
129-00-0	Pyrene	3700		180	360	ug/Kg
85-68-7	Butylbenzylphthalate	360	U	210	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	700	U	210	700	ug/Kg
56-55-3	Benzo(a)anthracene	2200		170	360	ug/Kg
218-01-9	Chrysene	1700		170	360	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	360	U	190	360	ug/Kg
117-84-0	Di-n-octyl phthalate	700	U	230	700	ug/Kg
205-99-2	Benzo(b)fluoranthene	1900		170	360	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	94
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141523.D	2	01/31/25 10:20	02/07/25 22:07	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	810		180	360	ug/Kg
50-32-8	Benzo(a)pyrene	1700		200	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	690		170	360	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	250	J	170	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	760		170	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	360	U	180	360	ug/Kg
123-91-1	1,4-Dioxane	360	U	230	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	360	U	160	360	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	73.5		18 - 112	49%	SPK: 150
13127-88-3	Phenol-d6	71.7		15 - 107	48%	SPK: 150
4165-60-0	Nitrobenzene-d5	51.3		18 - 107	51%	SPK: 100
321-60-8	2-Fluorobiphenyl	59.7		20 - 109	60%	SPK: 100
118-79-6	2,4,6-Tribromophenol	58.2		10 - 116	39%	SPK: 150
1718-51-0	Terphenyl-d14	65.5		10 - 105	66%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	83700	6.793			
1146-65-2	Naphthalene-d8	306000	8.075			
15067-26-2	Acenaphthene-d10	148000	9.828			
1517-22-2	Phenanthrene-d10	234000	11.316			
1719-03-5	Chrysene-d12	140000	13.963			
1520-96-3	Perylene-d12	112000	15.433			
TENTATIVE IDENTIFIED COMPOUNDS						
000108-94-1	Cyclohexanone	200	J		5.66	ug/Kg
000119-61-9	Benzophenone	360	J		10.5	ug/Kg
000613-12-7	Anthracene, 2-methyl-	180	J		11.8	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	240	J		11.8	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	440	J		11.9	ug/Kg
002381-21-7	Pyrene, 1-methyl-	200	J		13.0	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	400	J		13.1	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	94
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141523.D	2	01/31/25 10:20	02/07/25 22:07	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
033543-31-6	Fluoranthene, 2-methyl-	250	J		13.2	ug/Kg
	unknown13.192	220	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	1000	J		15.3	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.1
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141527.D	2	01/31/25 10:20	02/07/25 23:53	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	750	U	410	750	ug/Kg
108-95-2	Phenol	390	U	190	390	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	390	U	190	390	ug/Kg
95-57-8	2-Chlorophenol	390	U	190	390	ug/Kg
95-48-7	2-Methylphenol	390	U	180	390	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	390	U	210	390	ug/Kg
98-86-2	Acetophenone	390	UQ	200	390	ug/Kg
65794-96-9	3+4-Methylphenols	750	U	180	750	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	180	U	91.3	180	ug/Kg
67-72-1	Hexachloroethane	390	U	190	390	ug/Kg
98-95-3	Nitrobenzene	390	U	210	390	ug/Kg
78-59-1	Isophorone	390	U	190	390	ug/Kg
88-75-5	2-Nitrophenol	390	U	210	390	ug/Kg
105-67-9	2,4-Dimethylphenol	390	U	210	390	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	390	U	190	390	ug/Kg
120-83-2	2,4-Dichlorophenol	390	U	170	390	ug/Kg
91-20-3	Naphthalene	390	U	190	390	ug/Kg
106-47-8	4-Chloroaniline	390	U	190	390	ug/Kg
87-68-3	Hexachlorobutadiene	390	U	190	390	ug/Kg
105-60-2	Caprolactam	750	U	200	750	ug/Kg
59-50-7	4-Chloro-3-methylphenol	390	U	180	390	ug/Kg
91-57-6	2-Methylnaphthalene	390	U	190	390	ug/Kg
77-47-4	Hexachlorocyclopentadiene	750	UQ	350	750	ug/Kg
88-06-2	2,4,6-Trichlorophenol	390	U	160	390	ug/Kg
95-95-4	2,4,5-Trichlorophenol	390	U	170	390	ug/Kg
92-52-4	1,1-Biphenyl	390	U	200	390	ug/Kg
91-58-7	2-Chloronaphthalene	390	U	190	390	ug/Kg
88-74-4	2-Nitroaniline	390	U	220	390	ug/Kg
131-11-3	Dimethylphthalate	390	U	190	390	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.1
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141527.D	2	01/31/25 10:20	02/07/25 23:53	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	390	U	200	390	ug/Kg
606-20-2	2,6-Dinitrotoluene	390	U	190	390	ug/Kg
99-09-2	3-Nitroaniline	390	U	200	390	ug/Kg
83-32-9	Acenaphthene	250	J	180	390	ug/Kg
51-28-5	2,4-Dinitrophenol	750	U	550	750	ug/Kg
100-02-7	4-Nitrophenol	750	U	260	750	ug/Kg
132-64-9	Dibenzofuran	390	U	190	390	ug/Kg
121-14-2	2,4-Dinitrotoluene	390	U	200	390	ug/Kg
84-66-2	Diethylphthalate	390	U	180	390	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	390	U	190	390	ug/Kg
86-73-7	Fluorene	210	J	190	390	ug/Kg
100-01-6	4-Nitroaniline	390	U	240	390	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	750	U	270	750	ug/Kg
86-30-6	n-Nitrosodiphenylamine	390	U	180	390	ug/Kg
101-55-3	4-Bromophenyl-phenylether	390	U	180	390	ug/Kg
118-74-1	Hexachlorobenzene	390	U	190	390	ug/Kg
1912-24-9	Atrazine	390	U	210	390	ug/Kg
87-86-5	Pentachlorophenol	750	U	180	750	ug/Kg
85-01-8	Phenanthrene	2100		190	390	ug/Kg
120-12-7	Anthracene	630		190	390	ug/Kg
86-74-8	Carbazole	390	U	180	390	ug/Kg
84-74-2	Di-n-butylphthalate	390	U	190	390	ug/Kg
206-44-0	Fluoranthene	2700		190	390	ug/Kg
129-00-0	Pyrene	2900		190	390	ug/Kg
85-68-7	Butylbenzylphthalate	390	U	220	390	ug/Kg
91-94-1	3,3-Dichlorobenzidine	750	U	220	750	ug/Kg
56-55-3	Benzo(a)anthracene	1500		180	390	ug/Kg
218-01-9	Chrysene	1200		180	390	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	390	U	210	390	ug/Kg
117-84-0	Di-n-octyl phthalate	750	U	250	750	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		180	390	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.1
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141527.D	2	01/31/25 10:20	02/07/25 23:53	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	800		190	390	ug/Kg
50-32-8	Benzo(a)pyrene	1400		210	390	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	590		180	390	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	190	J	180	390	ug/Kg
191-24-2	Benzo(g,h,i)perylene	720		180	390	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	390	U	200	390	ug/Kg
123-91-1	1,4-Dioxane	390	U	250	390	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	390	U	170	390	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	33.3		18 - 112	22%	SPK: 150
13127-88-3	Phenol-d6	87.4		15 - 107	58%	SPK: 150
4165-60-0	Nitrobenzene-d5	64.2		18 - 107	64%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.5		20 - 109	73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	14.0	*	10 - 116	9%	SPK: 150
1718-51-0	Terphenyl-d14	79.0		10 - 105	79%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	81100	6.793			
1146-65-2	Naphthalene-d8	300000	8.075			
15067-26-2	Acenaphthene-d10	147000	9.828			
1517-22-2	Phenanthrene-d10	226000	11.316			
1719-03-5	Chrysene-d12	133000	13.963			
1520-96-3	Perylene-d12	108000	15.439			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	530	AB		4.98	ug/Kg
000629-50-5	Tridecane	250	J		8.66	ug/Kg
000629-59-4	Tetradecane	250	J		9.23	ug/Kg
000112-40-3	Dodecane	220	J		10.3	ug/Kg
000119-61-9	Benzophenone	350	J		10.5	ug/Kg
000112-95-8	Eicosane	350	J		10.7	ug/Kg
001120-21-4	Undecane	260	J		11.2	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.1
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141527.D	2	01/31/25 10:20	02/07/25 23:53	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000132-65-0	Dibenzothiophene	230	J		11.2	ug/Kg
006628-98-4	Pyrene, 4,5-dihydro-	160	J		11.6	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	310	J		11.8	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	380	J		11.8	ug/Kg
000613-12-7	Anthracene, 2-methyl-	180	J		11.9	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	810	J		11.9	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	250	J		12.1	ug/Kg
002221-95-6	(1S,4aS,4bS,7S,8aS,10aS)-7-Isoprop	260	J		12.2	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	380	J		12.3	ug/Kg
	unknown12.410	220	J		12.4	ug/Kg
000483-65-8	Retene	800	J		13.0	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	200	J		13.1	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141519.D	1	01/31/25 10:20	02/07/25 20:21	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	350	U	190	350	ug/Kg
108-95-2	Phenol	180	U	88.7	180	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	180	U	89.5	180	ug/Kg
95-57-8	2-Chlorophenol	180	U	89.3	180	ug/Kg
95-48-7	2-Methylphenol	180	U	86.2	180	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	180	U	97.2	180	ug/Kg
98-86-2	Acetophenone	180	UQ	93.0	180	ug/Kg
65794-96-9	3+4-Methylphenols	350	U	85.4	350	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	85.6	U	43.1	85.6	ug/Kg
67-72-1	Hexachloroethane	180	U	88.8	180	ug/Kg
98-95-3	Nitrobenzene	180	U	97.1	180	ug/Kg
78-59-1	Isophorone	180	U	90.5	180	ug/Kg
88-75-5	2-Nitrophenol	180	U	100	180	ug/Kg
105-67-9	2,4-Dimethylphenol	180	U	99.7	180	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	180	U	91.8	180	ug/Kg
120-83-2	2,4-Dichlorophenol	180	U	80.8	180	ug/Kg
91-20-3	Naphthalene	180	U	88.4	180	ug/Kg
106-47-8	4-Chloroaniline	180	U	88.4	180	ug/Kg
87-68-3	Hexachlorobutadiene	180	U	89.1	180	ug/Kg
105-60-2	Caprolactam	350	U	92.9	350	ug/Kg
59-50-7	4-Chloro-3-methylphenol	180	U	82.9	180	ug/Kg
91-57-6	2-Methylnaphthalene	180	U	88.3	180	ug/Kg
77-47-4	Hexachlorocyclopentadiene	350	UQ	170	350	ug/Kg
88-06-2	2,4,6-Trichlorophenol	180	U	76.4	180	ug/Kg
95-95-4	2,4,5-Trichlorophenol	180	U	79.2	180	ug/Kg
92-52-4	1,1-Biphenyl	180	U	93.5	180	ug/Kg
91-58-7	2-Chloronaphthalene	180	U	89.1	180	ug/Kg
88-74-4	2-Nitroaniline	180	U	100	180	ug/Kg
131-11-3	Dimethylphthalate	180	U	87.4	180	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141519.D	1	01/31/25 10:20	02/07/25 20:21	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	180	U	92.5	180	ug/Kg
606-20-2	2,6-Dinitrotoluene	180	U	89.0	180	ug/Kg
99-09-2	3-Nitroaniline	180	U	95.4	180	ug/Kg
83-32-9	Acenaphthene	180		86.8	180	ug/Kg
51-28-5	2,4-Dinitrophenol	350	U	260	350	ug/Kg
100-02-7	4-Nitrophenol	350	U	120	350	ug/Kg
132-64-9	Dibenzofuran	100	J	90.3	180	ug/Kg
121-14-2	2,4-Dinitrotoluene	180	U	92.2	180	ug/Kg
84-66-2	Diethylphthalate	180	U	85.7	180	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	180	U	91.6	180	ug/Kg
86-73-7	Fluorene	180		91.5	180	ug/Kg
100-01-6	4-Nitroaniline	180	U	110	180	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	350	U	130	350	ug/Kg
86-30-6	n-Nitrosodiphenylamine	180	U	87.3	180	ug/Kg
101-55-3	4-Bromophenyl-phenylether	180	U	84.4	180	ug/Kg
118-74-1	Hexachlorobenzene	180	U	90.9	180	ug/Kg
1912-24-9	Atrazine	180	U	97.8	180	ug/Kg
87-86-5	Pentachlorophenol	350	U	82.7	350	ug/Kg
85-01-8	Phenanthrene	2200		89.9	180	ug/Kg
120-12-7	Anthracene	730		90.3	180	ug/Kg
86-74-8	Carbazole	86.6	J	85.9	180	ug/Kg
84-74-2	Di-n-butylphthalate	180	U	90.2	180	ug/Kg
206-44-0	Fluoranthene	4400	E	87.4	180	ug/Kg
129-00-0	Pyrene	4600	E	88.8	180	ug/Kg
85-68-7	Butylbenzylphthalate	180	U	100	180	ug/Kg
91-94-1	3,3-Dichlorobenzidine	350	U	110	350	ug/Kg
56-55-3	Benzo(a)anthracene	2900	E	86.3	180	ug/Kg
218-01-9	Chrysene	2100		85.0	180	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	140	J	97.3	180	ug/Kg
117-84-0	Di-n-octyl phthalate	350	U	120	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	3200	E	86.8	180	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141519.D	1	01/31/25 10:20	02/07/25 20:21	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1300		88.4	180	ug/Kg
50-32-8	Benzo(a)pyrene	3000	E	99.5	180	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		83.5	180	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	450		86.9	180	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1600		85.7	180	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U	92.9	180	ug/Kg
123-91-1	1,4-Dioxane	180	U	120	180	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	180	U	79.9	180	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	70.7		18 - 112	47%	SPK: 150
13127-88-3	Phenol-d6	78.6		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	55.7		18 - 107	56%	SPK: 100
321-60-8	2-Fluorobiphenyl	62.5		20 - 109	63%	SPK: 100
118-79-6	2,4,6-Tribromophenol	29.1		10 - 116	19%	SPK: 150
1718-51-0	Terphenyl-d14	63.8		10 - 105	64%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	70000	6.792			
1146-65-2	Naphthalene-d8	264000	8.075			
15067-26-2	Acenaphthene-d10	131000	9.827			
1517-22-2	Phenanthrene-d10	202000	11.316			
1719-03-5	Chrysene-d12	129000	13.963			
1520-96-3	Perylene-d12	98600	15.421			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	120	AB		4.99	ug/Kg
000582-16-1	Naphthalene, 2,7-dimethyl-	120	J		9.49	ug/Kg
002320-32-3	Benzene, [1-(2,4-cyclopentadien-1-	78.8	J		10.4	ug/Kg
000119-61-9	Benzophenone	320	J		10.5	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	79.5	J		11.8	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	130	J		11.8	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	250	J		11.9	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141519.D	1	01/31/25 10:20	02/07/25 20:21	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000612-94-2	Naphthalene, 2-phenyl-	88.4	J		12.1	ug/Kg
003674-66-6	Phenanthrene, 2,5-dimethyl-	73.5	J		12.4	ug/Kg
	unknown12.404	76.0	J		12.4	ug/Kg
002381-21-7	Pyrene, 1-methyl-	150	J		13.0	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	190	J		13.1	ug/Kg
000238-84-6	11H-Benzo[a]fluorene	98.4	J		13.2	ug/Kg
033543-31-6	Fluoranthene, 2-methyl-	130	J		13.2	ug/Kg
000239-35-0	Benzo[b]naphtho[2,1-d]thiophene	78.8	J		13.7	ug/Kg
025732-74-5	Cyclopenta(cd)pyrene, 3,4-dihydro-	77.7	J		14.1	ug/Kg
000192-97-2	Benzo[e]pyrene	520	J		15.1	ug/Kg
000198-55-0	Perylene	2100	J		15.3	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925DL	SDG No.:	Q1232
Lab Sample ID:	Q1232-15DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141547.D	5	01/31/25 10:20	02/10/25 20:45	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1800	UD	970	1800	ug/Kg
108-95-2	Phenol	910	UD	440	910	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	910	UD	450	910	ug/Kg
95-57-8	2-Chlorophenol	910	UD	450	910	ug/Kg
95-48-7	2-Methylphenol	910	UD	430	910	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	910	UD	490	910	ug/Kg
98-86-2	Acetophenone	910	UDQ	460	910	ug/Kg
65794-96-9	3+4-Methylphenols	1800	UD	430	1800	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	430	UD	220	430	ug/Kg
67-72-1	Hexachloroethane	910	UD	440	910	ug/Kg
98-95-3	Nitrobenzene	910	UD	490	910	ug/Kg
78-59-1	Isophorone	910	UD	450	910	ug/Kg
88-75-5	2-Nitrophenol	910	UD	510	910	ug/Kg
105-67-9	2,4-Dimethylphenol	910	UD	500	910	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	910	UD	460	910	ug/Kg
120-83-2	2,4-Dichlorophenol	910	UD	400	910	ug/Kg
91-20-3	Naphthalene	910	UD	440	910	ug/Kg
106-47-8	4-Chloroaniline	910	UD	440	910	ug/Kg
87-68-3	Hexachlorobutadiene	910	UD	450	910	ug/Kg
105-60-2	Caprolactam	1800	UD	460	1800	ug/Kg
59-50-7	4-Chloro-3-methylphenol	910	UD	410	910	ug/Kg
91-57-6	2-Methylnaphthalene	910	UD	440	910	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1800	UDQ	830	1800	ug/Kg
88-06-2	2,4,6-Trichlorophenol	910	UD	380	910	ug/Kg
95-95-4	2,4,5-Trichlorophenol	910	UD	400	910	ug/Kg
92-52-4	1,1-Biphenyl	910	UD	470	910	ug/Kg
91-58-7	2-Chloronaphthalene	910	UD	450	910	ug/Kg
88-74-4	2-Nitroaniline	910	UD	510	910	ug/Kg
131-11-3	Dimethylphthalate	910	UD	440	910	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925DL	SDG No.:	Q1232
Lab Sample ID:	Q1232-15DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141547.D	5	01/31/25 10:20	02/10/25 20:45	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	910	UD	460	910	ug/Kg
606-20-2	2,6-Dinitrotoluene	910	UD	450	910	ug/Kg
99-09-2	3-Nitroaniline	910	UD	480	910	ug/Kg
83-32-9	Acenaphthene	910	UD	430	910	ug/Kg
51-28-5	2,4-Dinitrophenol	1800	UD	1300	1800	ug/Kg
100-02-7	4-Nitrophenol	1800	UD	620	1800	ug/Kg
132-64-9	Dibenzofuran	910	UD	450	910	ug/Kg
121-14-2	2,4-Dinitrotoluene	910	UD	460	910	ug/Kg
84-66-2	Diethylphthalate	910	UD	430	910	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	910	UD	460	910	ug/Kg
86-73-7	Fluorene	910	UD	460	910	ug/Kg
100-01-6	4-Nitroaniline	910	UD	570	910	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1800	UD	630	1800	ug/Kg
86-30-6	n-Nitrosodiphenylamine	910	UD	440	910	ug/Kg
101-55-3	4-Bromophenyl-phenylether	910	UD	420	910	ug/Kg
118-74-1	Hexachlorobenzene	910	UD	450	910	ug/Kg
1912-24-9	Atrazine	910	UD	490	910	ug/Kg
87-86-5	Pentachlorophenol	1800	UD	410	1800	ug/Kg
85-01-8	Phenanthrene	2300	D	450	910	ug/Kg
120-12-7	Anthracene	760	JD	450	910	ug/Kg
86-74-8	Carbazole	910	UD	430	910	ug/Kg
84-74-2	Di-n-butylphthalate	910	UD	450	910	ug/Kg
206-44-0	Fluoranthene	4600	D	440	910	ug/Kg
129-00-0	Pyrene	3700	D	440	910	ug/Kg
85-68-7	Butylbenzylphthalate	910	UD	520	910	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1800	UD	530	1800	ug/Kg
56-55-3	Benzo(a)anthracene	2800	D	430	910	ug/Kg
218-01-9	Chrysene	2400	D	430	910	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	910	UD	490	910	ug/Kg
117-84-0	Di-n-octyl phthalate	1800	UD	590	1800	ug/Kg
205-99-2	Benzo(b)fluoranthene	3300	D	430	910	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925DL	SDG No.:	Q1232
Lab Sample ID:	Q1232-15DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	93.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141547.D	5	01/31/25 10:20	02/10/25 20:45	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1500	D	440	910	ug/Kg
50-32-8	Benzo(a)pyrene	3100	D	500	910	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1300	D	420	910	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	910	UD	430	910	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400	D	430	910	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	910	UD	460	910	ug/Kg
123-91-1	1,4-Dioxane	910	UD	590	910	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	910	UD	400	910	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	67.9		18 - 112	45%	SPK: 150
13127-88-3	Phenol-d6	78.0		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	54.7		18 - 107	55%	SPK: 100
321-60-8	2-Fluorobiphenyl	65.0		20 - 109	65%	SPK: 100
118-79-6	2,4,6-Tribromophenol	22.2		10 - 116	15%	SPK: 150
1718-51-0	Terphenyl-d14	48.4		10 - 105	48%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	73500	6.787			
1146-65-2	Naphthalene-d8	290000	8.069			
15067-26-2	Acenaphthene-d10	147000	9.822			
1517-22-2	Phenanthrene-d10	203000	11.31			
1719-03-5	Chrysene-d12	173000	13.951			
1520-96-3	Perylene-d12	151000	15.404			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	95.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141528.D	2	01/31/25 10:20	02/08/25 00:20	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	690	U	380	690	ug/Kg
108-95-2	Phenol	360	U	170	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	360	U	180	360	ug/Kg
95-57-8	2-Chlorophenol	360	U	180	360	ug/Kg
95-48-7	2-Methylphenol	360	U	170	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	360	U	190	360	ug/Kg
98-86-2	Acetophenone	360	UQ	180	360	ug/Kg
65794-96-9	3+4-Methylphenols	690	U	170	690	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	170	U	84.6	170	ug/Kg
67-72-1	Hexachloroethane	360	U	170	360	ug/Kg
98-95-3	Nitrobenzene	360	U	190	360	ug/Kg
78-59-1	Isophorone	360	U	180	360	ug/Kg
88-75-5	2-Nitrophenol	360	U	200	360	ug/Kg
105-67-9	2,4-Dimethylphenol	360	U	200	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	360	U	180	360	ug/Kg
120-83-2	2,4-Dichlorophenol	360	U	160	360	ug/Kg
91-20-3	Naphthalene	360	U	170	360	ug/Kg
106-47-8	4-Chloroaniline	360	U	170	360	ug/Kg
87-68-3	Hexachlorobutadiene	360	U	170	360	ug/Kg
105-60-2	Caprolactam	690	U	180	690	ug/Kg
59-50-7	4-Chloro-3-methylphenol	360	U	160	360	ug/Kg
91-57-6	2-Methylnaphthalene	360	U	170	360	ug/Kg
77-47-4	Hexachlorocyclopentadiene	690	UQ	330	690	ug/Kg
88-06-2	2,4,6-Trichlorophenol	360	U	150	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	360	U	160	360	ug/Kg
92-52-4	1,1-Biphenyl	360	U	180	360	ug/Kg
91-58-7	2-Chloronaphthalene	360	U	170	360	ug/Kg
88-74-4	2-Nitroaniline	360	U	200	360	ug/Kg
131-11-3	Dimethylphthalate	360	U	170	360	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	95.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141528.D	2	01/31/25 10:20	02/08/25 00:20	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	180	J	180	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	360	U	170	360	ug/Kg
99-09-2	3-Nitroaniline	360	U	190	360	ug/Kg
83-32-9	Acenaphthene	450		170	360	ug/Kg
51-28-5	2,4-Dinitrophenol	690	U	510	690	ug/Kg
100-02-7	4-Nitrophenol	690	U	240	690	ug/Kg
132-64-9	Dibenzofuran	210	J	180	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	360	U	180	360	ug/Kg
84-66-2	Diethylphthalate	360	U	170	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	360	U	180	360	ug/Kg
86-73-7	Fluorene	340	J	180	360	ug/Kg
100-01-6	4-Nitroaniline	360	U	220	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	690	U	250	690	ug/Kg
86-30-6	n-Nitrosodiphenylamine	360	U	170	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	360	U	170	360	ug/Kg
118-74-1	Hexachlorobenzene	360	U	180	360	ug/Kg
1912-24-9	Atrazine	360	U	190	360	ug/Kg
87-86-5	Pentachlorophenol	690	U	160	690	ug/Kg
85-01-8	Phenanthrene	4000		180	360	ug/Kg
120-12-7	Anthracene	1100		180	360	ug/Kg
86-74-8	Carbazole	260	J	170	360	ug/Kg
84-74-2	Di-n-butylphthalate	360	U	180	360	ug/Kg
206-44-0	Fluoranthene	4900		170	360	ug/Kg
129-00-0	Pyrene	5400		170	360	ug/Kg
85-68-7	Butylbenzylphthalate	360	U	200	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	690	U	210	690	ug/Kg
56-55-3	Benzo(a)anthracene	3200		170	360	ug/Kg
218-01-9	Chrysene	2700		170	360	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	280	J	190	360	ug/Kg
117-84-0	Di-n-octyl phthalate	690	U	230	690	ug/Kg
205-99-2	Benzo(b)fluoranthene	2900		170	360	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	95.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141528.D	2	01/31/25 10:20	02/08/25 00:20	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1500		170	360	ug/Kg
50-32-8	Benzo(a)pyrene	2900		200	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1200		160	360	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	430		170	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400		170	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	360	U	180	360	ug/Kg
123-91-1	1,4-Dioxane	360	U	230	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	360	U	160	360	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	89.4		18 - 112	60%	SPK: 150
13127-88-3	Phenol-d6	85.6		15 - 107	57%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.6		18 - 107	58%	SPK: 100
321-60-8	2-Fluorobiphenyl	68.8		20 - 109	69%	SPK: 100
118-79-6	2,4,6-Tribromophenol	72.9		10 - 116	49%	SPK: 150
1718-51-0	Terphenyl-d14	75.2		10 - 105	75%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82100	6.792			
1146-65-2	Naphthalene-d8	311000	8.075			
15067-26-2	Acenaphthene-d10	153000	9.827			
1517-22-2	Phenanthrene-d10	233000	11.316			
1719-03-5	Chrysene-d12	137000	13.974			
1520-96-3	Perylene-d12	111000	15.457			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	360	J		10.5	ug/Kg
006418-41-3	Tridecane, 3-methyl-	280	J		10.7	ug/Kg
002141-42-6	Anthracene, 1,2,3,4-tetrahydro-	300	J		11.2	ug/Kg
000132-65-0	Dibenzothiophene	280	J		11.2	ug/Kg
000605-02-7	Naphthalene, 1-phenyl-	240	J		11.6	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	740	J		11.8	ug/Kg
000949-41-7	1H-Cyclopropa[l]phenanthrene,1a,9b	970	J		11.9	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	95.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141528.D	2	01/31/25 10:20	02/08/25 00:20	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
002531-84-2	Phenanthrene, 2-methyl-	390	J		11.9	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	1700	J		11.9	ug/Kg
	unknown12.016	330	J		12.0	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	570	J		12.1	ug/Kg
000084-65-1	9,10-Anthracenedione	240	J		12.1	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	500	J		12.3	ug/Kg
003674-66-6	Phenanthrene, 2,5-dimethyl-	560	J		12.4	ug/Kg
	unknown12.410	400	J		12.4	ug/Kg
005737-13-3	Cyclopenta(def)phenanthrenone	430	J		12.5	ug/Kg
002381-21-7	Pyrene, 1-methyl-	300	J		13.0	ug/Kg
000238-84-6	11H-Benzo[a]fluorene	370	J		13.1	ug/Kg
065078-61-7	3-Methyl-4-p-tolylhydrazono-2-pyra	280	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	2300	J		15.3	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166418BL	PB166418BL	2-Fluorophenol	150	134	89		18	112
		Phenol-d6	150	129	86		15	107
		Nitrobenzene-d5	100	96.1	96		18	107
		2-Fluorobiphenyl	100	96.5	97		20	109
		2,4,6-Tribromophenol	150	147	98		10	116
		Terphenyl-d14	100	94.3	94		10	105
PB166418BS	PB166418BS	2-Fluorophenol	150	139	92		18	112
		Phenol-d6	150	133	89		15	107
		Nitrobenzene-d5	100	97.1	97		18	107
		2-Fluorobiphenyl	100	98.9	99		20	109
		2,4,6-Tribromophenol	150	160	106		10	116
		Terphenyl-d14	100	96.1	96		10	105
Q1232-03	JPP-46.2-012925	2-Fluorophenol	150	87.2	58		18	112
		Phenol-d6	150	83.3	56		15	107
		Nitrobenzene-d5	100	63.4	63		18	107
		2-Fluorobiphenyl	100	62.4	62		20	109
		2,4,6-Tribromophenol	150	79.0	53		10	116
		Terphenyl-d14	100	45.3	45		10	105
Q1232-03DL	JPP-46.2-012925DL	2-Fluorophenol	150	82.1	55		18	112
		Phenol-d6	150	83.1	55		15	107
		Nitrobenzene-d5	100	57.2	57		18	107
		2-Fluorobiphenyl	100	56.3	56		20	109
		2,4,6-Tribromophenol	150	78.8	53		10	116
		Terphenyl-d14	100	51.6	52		10	105
Q1232-07	JPP-46.1-012925	2-Fluorophenol	150	73.5	49		18	112
		Phenol-d6	150	71.7	48		15	107
		Nitrobenzene-d5	100	51.3	51		18	107
		2-Fluorobiphenyl	100	59.7	60		20	109
		2,4,6-Tribromophenol	150	58.2	39		10	116
		Terphenyl-d14	100	65.5	66		10	105
Q1232-11	JPP-42.1-012925	2-Fluorophenol	150	33.3	22		18	112
		Phenol-d6	150	87.4	58		15	107
		Nitrobenzene-d5	100	64.2	64		18	107
		2-Fluorobiphenyl	100	73.5	73		20	109
		2,4,6-Tribromophenol	150	14.0	9	*	10	116
		Terphenyl-d14	100	79.0	79		10	105
Q1232-15	JPP-42.2-012925	2-Fluorophenol	150	70.7	47		18	112
		Phenol-d6	150	78.6	52		15	107
		Nitrobenzene-d5	100	55.7	56		18	107
		2-Fluorobiphenyl	100	62.5	63		20	109
		2,4,6-Tribromophenol	150	29.1	19		10	116
		Terphenyl-d14	100	63.8	64		10	105
Q1232-15DL	JPP-42.2-012925DL	2-Fluorophenol	150	67.9	45		18	112
		Phenol-d6	150	78.0	52		15	107
		Nitrobenzene-d5	100	54.7	55		18	107
		2-Fluorobiphenyl	100	65.0	65		20	109
		2,4,6-Tribromophenol	150	22.2	15		10	116
		Terphenyl-d14	100	48.4	48		10	105
Q1232-19	JPP-51.1-012925	2-Fluorophenol	150	89.4	60		18	112
		Phenol-d6	150	85.6	57		15	107
		Nitrobenzene-d5	100	57.6	58		18	107

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Surrogate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q1232-19	JPP-51.1-012925	2-Fluorobiphenyl	100	68.8	69		20	109
		2,4,6-Tribromophenol	150	72.9	49		10	116
		Terphenyl-d14	100	75.2	75		10	105
Q1239-10MS	357MS	2-Fluorophenol	150	80.0	53		18	112
		Phenol-d6	150	78.3	52		15	107
		Nitrobenzene-d5	100	54.3	54		18	107
		2-Fluorobiphenyl	100	53.2	53		20	109
		2,4,6-Tribromophenol	150	80.6	54		10	116
		Terphenyl-d14	100	46.0	46		10	105
Q1239-10MSD	357MSD	2-Fluorophenol	150	84.0	56		18	112
		Phenol-d6	150	82.0	55		15	107
		Nitrobenzene-d5	100	57.9	58		18	107
		2-Fluorobiphenyl	100	55.5	55		20	109
		2,4,6-Tribromophenol	150	84.1	56		10	116
		Terphenyl-d14	100	49.7	50		10	105

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1239-10MS		**Client Sample ID: 357MS**						**DataFile: BF141345.D**			
Benzaldehyde	1200	0	1000	ug/Kg	83				10	86	
Phenol	1200	0	880	ug/Kg	73				67	126	
bis(2-Chloroethyl)ether	1200	0	900	ug/Kg	75				54	125	
2-Chlorophenol	1200	0	900	ug/Kg	75	*			79	107	
2-Methylphenol	1200	0	860	ug/Kg	72				66	122	
2,2-oxybis(1-Chloropropane)	1200	0	880	ug/Kg	73				65	110	
Acetophenone	1200	0	990	ug/Kg	83				75	111	
3+4-Methylphenols	1200	0	920	ug/Kg	77				66	104	
N-Nitroso-di-n-propylamine	1200	0	900	ug/Kg	75				59	119	
Hexachloroethane	1200	0	860	ug/Kg	72				65	117	
Nitrobenzene	1200	0	840	ug/Kg	70				70	119	
Isophorone	1200	0	900	ug/Kg	75	*			76	122	
2-Nitrophenol	1200	0	900	ug/Kg	75				54	145	
2,4-Dimethylphenol	1200	0	1100	ug/Kg	92				44	135	
bis(2-Chloroethoxy)methane	1200	0	880	ug/Kg	73				68	112	
2,4-Dichlorophenol	1200	0	900	ug/Kg	75				72	118	
Naphthalene	1200	0	850	ug/Kg	71	*			72	110	
4-Chloroaniline	1200	0	210	ug/Kg	18				10	91	
Hexachlorobutadiene	1200	0	840	ug/Kg	70				66	114	
Caprolactam	1200	0	990	ug/Kg	83				51	134	
4-Chloro-3-methylphenol	1200	0	870	ug/Kg	73				57	132	
2-Methylnaphthalene	1200	0	840	ug/Kg	70				59	123	
Hexachlorocyclopentadiene	2400	0	3200	ug/Kg	133				10	175	
2,4,6-Trichlorophenol	1200	0	920	ug/Kg	77				72	117	
2,4,5-Trichlorophenol	1200	0	890	ug/Kg	74				72	117	
1,1-Biphenyl	1200	0	990	ug/Kg	83				75	113	
2-Chloronaphthalene	1200	0	850	ug/Kg	71				67	118	
2-Nitroaniline	1200	0	900	ug/Kg	75				69	127	
Dimethylphthalate	1200	0	910	ug/Kg	76				70	113	
Acenaphthylene	1200	0	940	ug/Kg	78	*			79	118	
2,6-Dinitrotoluene	1200	0	860	ug/Kg	72				70	125	
3-Nitroaniline	1200	0	530	ug/Kg	44				30	99	
Acenaphthene	1200	0	980	ug/Kg	82				70	121	
2,4-Dinitrophenol	2400	0	2200	ug/Kg	92				10	155	
4-Nitrophenol	2400	0	1600	ug/Kg	67				45	133	
Dibenzofuran	1200	0	870	ug/Kg	73				72	110	
2,4-Dinitrotoluene	1200	0	880	ug/Kg	73				55	128	
Diethylphthalate	1200	0	900	ug/Kg	75				70	112	
4-Chlorophenyl-phenylether	1200	0	850	ug/Kg	71				71	108	
Fluorene	1200	0	850	ug/Kg	71				68	116	
4-Nitroaniline	1200	0	800	ug/Kg	67				55	120	
4,6-Dinitro-2-methylphenol	1200	0	1100	ug/Kg	92				10	160	
N-Nitrosodiphenylamine	1200	0	990	ug/Kg	83				73	118	
4-Bromophenyl-phenylether	1200	0	970	ug/Kg	81				65	121	
Hexachlorobenzene	1200	0	940	ug/Kg	78				67	118	
Atrazine	1200	0	1000	ug/Kg	83				79	127	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Pentachlorophenol	2400	0	1800	ug/Kg	75				47	128	
Phenanthrene	1200	0	940	ug/Kg	78				52	128	
Anthracene	1200	0	950	ug/Kg	79				62	124	
Carbazole	1200	0	850	ug/Kg	71				59	119	
Di-n-butylphthalate	1200	0	960	ug/Kg	80				69	118	
Fluoranthene	1200	0	840	ug/Kg	70				44	125	
Pyrene	1200	0	740	ug/Kg	62				26	142	
Butylbenzylphthalate	1200	0	860	ug/Kg	72				64	126	
3,3-Dichlorobenzidine	1200	0	670	ug/Kg	56				33	116	
Benzo(a)anthracene	1200	0	860	ug/Kg	72				71	114	
Chrysene	1200	0	910	ug/Kg	76				57	121	
bis(2-Ethylhexyl)phthalate	1200	0	890	ug/Kg	74				42	169	
Di-n-octyl phthalate	1200	0	1000	ug/Kg	83				23	175	
Benzo(b)fluoranthene	1200	0	1000	ug/Kg	83				67	121	
Benzo(k)fluoranthene	1200	0	890	ug/Kg	74				57	134	
Benzo(a)pyrene	1200	0	990	ug/Kg	83				70	142	
Indeno(1,2,3-cd)pyrene	1200	0	720	ug/Kg	60				40	129	
Dibenz(a,h)anthracene	1200	0	730	ug/Kg	61				43	123	
Benzo(g,h,i)perylene	1200	0	640	ug/Kg	53				24	125	
1,2,4,5-Tetrachlorobenzene	1200	0	960	ug/Kg	80				69	124	
1,4-Dioxane	1200	0	900	ug/Kg	75				46	112	
2,3,4,6-Tetrachlorophenol	1200	0	930	ug/Kg	78				69	112	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1239-10MSD		**Client Sample ID: 357MSD**						**DataFile: BF141346.D**			
Benzaldehyde	1200	0	1100	ug/Kg	92	*	10		10	86	20
Phenol	1200	0	920	ug/Kg	77		5		67	126	20
bis(2-Chloroethyl)ether	1200	0	940	ug/Kg	78		4		54	125	20
2-Chlorophenol	1200	0	950	ug/Kg	79		5		79	107	20
2-Methylphenol	1200	0	900	ug/Kg	75		4		66	122	20
2,2-oxybis(1-Chloropropane)	1200	0	920	ug/Kg	77		5		65	110	20
Acetophenone	1200	0	1100	ug/Kg	92		10		75	111	20
3+4-Methylphenols	1200	0	970	ug/Kg	81		5		66	104	20
N-Nitroso-di-n-propylamine	1200	0	940	ug/Kg	78		4		59	119	20
Hexachloroethane	1200	0	910	ug/Kg	76		5		65	117	20
Nitrobenzene	1200	0	910	ug/Kg	76		8		70	119	20
Isophorone	1200	0	960	ug/Kg	80		6		76	122	20
2-Nitrophenol	1200	0	970	ug/Kg	81		8		54	145	20
2,4-Dimethylphenol	1200	0	1200	ug/Kg	100		8		44	135	20
bis(2-Chloroethoxy)methane	1200	0	950	ug/Kg	79		8		68	112	20
2,4-Dichlorophenol	1200	0	950	ug/Kg	79		5		72	118	20
Naphthalene	1200	0	900	ug/Kg	75		5		72	110	20
4-Chloroaniline	1200	0	240	ug/Kg	20		11		10	91	20
Hexachlorobutadiene	1200	0	890	ug/Kg	74		6		66	114	20
Caprolactam	1200	0	1100	ug/Kg	92		10		51	134	20
4-Chloro-3-methylphenol	1200	0	930	ug/Kg	78		7		57	132	20
2-Methylnaphthalene	1200	0	890	ug/Kg	74		6		59	123	20
Hexachlorocyclopentadiene	2400	0	3400	ug/Kg	142		7		10	175	20
2,4,6-Trichlorophenol	1200	0	970	ug/Kg	81		5		72	117	20
2,4,5-Trichlorophenol	1200	0	950	ug/Kg	79		7		72	117	20
1,1-Biphenyl	1200	0	1000	ug/Kg	83		0		75	113	20
2-Chloronaphthalene	1200	0	900	ug/Kg	75		5		67	118	20
2-Nitroaniline	1200	0	950	ug/Kg	79		5		69	127	20
Dimethylphthalate	1200	0	970	ug/Kg	81		6		70	113	20
Acenaphthylene	1200	0	990	ug/Kg	83		6		79	118	20
2,6-Dinitrotoluene	1200	0	910	ug/Kg	76		5		70	125	20
3-Nitroaniline	1200	0	550	ug/Kg	46		4		30	99	20
Acenaphthene	1200	0	1000	ug/Kg	83		1		70	121	20
2,4-Dinitrophenol	2400	0	2300	ug/Kg	96		4		10	155	20
4-Nitrophenol	2400	0	1700	ug/Kg	71		6		45	133	20
Dibenzofuran	1200	0	920	ug/Kg	77		5		72	110	20
2,4-Dinitrotoluene	1200	0	930	ug/Kg	78		7		55	128	20
Diethylphthalate	1200	0	950	ug/Kg	79		5		70	112	20
4-Chlorophenyl-phenylether	1200	0	900	ug/Kg	75		5		71	108	20
Fluorene	1200	0	900	ug/Kg	75		5		68	116	20
4-Nitroaniline	1200	0	870	ug/Kg	73		9		55	120	20
4,6-Dinitro-2-methylphenol	1200	0	1200	ug/Kg	100		8		10	160	20
N-Nitrosodiphenylamine	1200	0	1100	ug/Kg	92		10		73	118	20
4-Bromophenyl-phenylether	1200	0	1000	ug/Kg	83		2		65	121	20
Hexachlorobenzene	1200	0	990	ug/Kg	83		6		67	118	20
Atrazine	1200	0	1100	ug/Kg	92		10		79	127	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	2400	0	2000	ug/Kg	83		10		47	128	20
Phenanthrene	1200	0	1000	ug/Kg	83		6		52	128	20
Anthracene	1200	0	1000	ug/Kg	83		5		62	124	20
Carbazole	1200	0	920	ug/Kg	77		8		59	119	20
Di-n-butylphthalate	1200	0	1000	ug/Kg	83		4		69	118	20
Fluoranthene	1200	0	920	ug/Kg	77		10		44	125	20
Pyrene	1200	0	810	ug/Kg	68		9		26	142	20
Butylbenzylphthalate	1200	0	930	ug/Kg	78		8		64	126	20
3,3-Dichlorobenzidine	1200	0	750	ug/Kg	63		12		33	116	20
Benzo(a)anthracene	1200	0	930	ug/Kg	78		8		71	114	20
Chrysene	1200	0	980	ug/Kg	82		8		57	121	20
bis(2-Ethylhexyl)phthalate	1200	0	970	ug/Kg	81		9		42	169	20
Di-n-octyl phthalate	1200	0	1100	ug/Kg	92		10		23	175	20
Benzo(b)fluoranthene	1200	0	990	ug/Kg	83		0		67	121	20
Benzo(k)fluoranthene	1200	0	1100	ug/Kg	92		22	*	57	134	20
Benzo(a)pyrene	1200	0	1100	ug/Kg	92		10		70	142	20
Indeno(1,2,3-cd)pyrene	1200	0	770	ug/Kg	64		6		40	129	20
Dibenz(a,h)anthracene	1200	0	780	ug/Kg	65		6		43	123	20
Benzo(g,h,i)perylene	1200	0	690	ug/Kg	58		9		24	125	20
1,2,4,5-Tetrachlorobenzene	1200	0	1000	ug/Kg	83		4		69	124	20
1,4-Dioxane	1200	0	950	ug/Kg	79		5		46	112	20
2,3,4,6-Tetrachlorophenol	1200	0	1000	ug/Kg	83		6		69	112	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141441.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166418BS	Benzaldehyde	1700	1700	ug/Kg	100				10	133	
	Phenol	1700	1400	ug/Kg	82				62	112	
	bis(2-Chloroethyl)ether	1700	1400	ug/Kg	82				60	101	
	2-Chlorophenol	1700	1500	ug/Kg	88				65	112	
	2-Methylphenol	1700	1400	ug/Kg	82				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1300	ug/Kg	76				51	100	
	Acetophenone	1700	1700	ug/Kg	100		*		66	98	
	3+4-Methylphenols	1700	1500	ug/Kg	88				58	111	
	N-Nitroso-di-n-propylamine	1700	1400	ug/Kg	82				63	95	
	Hexachloroethane	1700	1500	ug/Kg	88				72	108	
	Nitrobenzene	1700	1400	ug/Kg	82				57	101	
	Isophorone	1700	1500	ug/Kg	88				59	99	
	2-Nitrophenol	1700	1500	ug/Kg	88				61	111	
	2,4-Dimethylphenol	1700	1800	ug/Kg	106				46	141	
	bis(2-Chloroethoxy)methane	1700	1300	ug/Kg	76				66	97	
	2,4-Dichlorophenol	1700	1500	ug/Kg	88				62	107	
	Naphthalene	1700	1400	ug/Kg	82				62	100	
	4-Chloroaniline	1700	580	ug/Kg	34				16	100	
	Hexachlorobutadiene	1700	1500	ug/Kg	88				53	98	
	Caprolactam	1700	1600	ug/Kg	94				67	110	
	4-Chloro-3-methylphenol	1700	1500	ug/Kg	88				58	112	
	2-Methylnaphthalene	1700	1400	ug/Kg	82				60	104	
	Hexachlorocyclopentadiene	3300	6300	ug/Kg	191		*		45	165	
	2,4,6-Trichlorophenol	1700	1500	ug/Kg	88				59	102	
	2,4,5-Trichlorophenol	1700	1400	ug/Kg	82				61	98	
	1,1-Biphenyl	1700	1600	ug/Kg	94				57	103	
	2-Chloronaphthalene	1700	1400	ug/Kg	82				58	99	
	2-Nitroaniline	1700	1500	ug/Kg	88				66	101	
	Dimethylphthalate	1700	1500	ug/Kg	88				61	99	
	Acenaphthylene	1700	1600	ug/Kg	94				63	101	
	2,6-Dinitrotoluene	1700	1400	ug/Kg	82				61	104	
	3-Nitroaniline	1700	750	ug/Kg	44				28	100	
	Acenaphthene	1700	1700	ug/Kg	100				57	104	
	2,4-Dinitrophenol	3300	3700	ug/Kg	112				37	128	
	4-Nitrophenol	3300	3200	ug/Kg	97				48	119	
	Dibenzofuran	1700	1500	ug/Kg	88				63	99	
	2,4-Dinitrotoluene	1700	1500	ug/Kg	88				60	106	
	Diethylphthalate	1700	1500	ug/Kg	88				60	101	
	4-Chlorophenyl-phenylether	1700	1500	ug/Kg	88				58	98	
	Fluorene	1700	1500	ug/Kg	88				61	101	
	4-Nitroaniline	1700	1500	ug/Kg	88				64	103	
	4,6-Dinitro-2-methylphenol	1700	1700	ug/Kg	100				76	113	
	N-Nitrosodiphenylamine	1700	1500	ug/Kg	88				71	99	
	4-Bromophenyl-phenylether	1700	1500	ug/Kg	88				66	102	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141441.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166418BS	Hexachlorobenzene	1700	1500	ug/Kg	88				64	98	
	Atrazine	1700	1700	ug/Kg	100				47	152	
	Pentachlorophenol	3300	3100	ug/Kg	94				67	105	
	Phenanthrene	1700	1500	ug/Kg	88				59	103	
	Anthracene	1700	1600	ug/Kg	94				61	105	
	Carbazole	1700	1600	ug/Kg	94				61	99	
	Di-n-butylphthalate	1700	1500	ug/Kg	88				58	104	
	Fluoranthene	1700	1600	ug/Kg	94				57	107	
	Pyrene	1700	1400	ug/Kg	82				59	103	
	Butylbenzylphthalate	1700	1500	ug/Kg	88				55	103	
	3,3-Dichlorobenzidine	1700	710	ug/Kg	42				42	91	
	Benzo(a)anthracene	1700	1500	ug/Kg	88				60	102	
	Chrysene	1700	1400	ug/Kg	82				59	101	
	bis(2-Ethylhexyl)phthalate	1700	1500	ug/Kg	88				54	135	
	Di-n-octyl phthalate	1700	1400	ug/Kg	82				52	137	
	Benzo(b)fluoranthene	1700	1400	ug/Kg	82				62	109	
	Benzo(k)fluoranthene	1700	1600	ug/Kg	94				62	109	
	Benzo(a)pyrene	1700	1600	ug/Kg	94				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1500	ug/Kg	88				63	101	
	Dibenz(a,h)anthracene	1700	1500	ug/Kg	88				61	112	
	Benzo(g,h,i)perylene	1700	1400	ug/Kg	82				70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1600	ug/Kg	94				53	101	
	1,4-Dioxane	1700	1300	ug/Kg	76				50	96	
	2,3,4,6-Tetrachlorophenol	1700	1600	ug/Kg	94				59	108	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166418BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141440.D Lab Sample ID: PB166418BL

Instrument ID: BNA_F Date Extracted: 01/31/2025

Matrix: (soil/water) SOIL Date Analyzed: 02/05/2025

Level: (low/med) LOW Time Analyzed: 12:13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166418BS	PB166418BS	BF141441.D	02/05/2025
JPP-46.1-012925	Q1232-07	BF141523.D	02/07/2025
JPP-42.2-012925	Q1232-15	BF141519.D	02/07/2025
JPP-42.1-012925	Q1232-11	BF141527.D	02/07/2025
JPP-51.1-012925	Q1232-19	BF141528.D	02/08/2025
357MS	Q1239-10MS	BF141345.D	01/31/2025
357MSD	Q1239-10MSD	BF141346.D	01/31/2025
JPP-46.2-012925	Q1232-03	BF141390.D	02/04/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141289.D DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141290.D	01/29/2025	10:30
SSTDICC005	SSTDICC005	BF141291.D	01/29/2025	10:56
SSTDICC010	SSTDICC010	BF141292.D	01/29/2025	11:49
SSTDICC020	SSTDICC020	BF141293.D	01/29/2025	15:17
SSTDICCC040	SSTDICCC040	BF141294.D	01/29/2025	15:45
SSTDICC050	SSTDICC050	BF141295.D	01/29/2025	16:11
SSTDICC060	SSTDICC060	BF141296.D	01/29/2025	16:38
SSTDICC080	SSTDICC080	BF141297.D	01/29/2025	17:05

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141335.D DFTPP Injection Date: 01/31/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	46.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	49
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	11.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.6 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141336.D	01/31/2025	17:19
357MS	Q1239-10MS	BF141345.D	01/31/2025	21:23
357MSD	Q1239-10MSD	BF141346.D	01/31/2025	21:50

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141372.D DFTPP Injection Date: 02/03/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.1
68	Less than 2.0% of mass 69	0.8 (2) 1
69	Mass 69 relative abundance	37.8
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	50.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	26.7
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	12.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.7 (19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141373.D	02/03/2025	17:14
JPP-46.2-012925	Q1232-03	BF141390.D	02/04/2025	00:49

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141409.D DFTPP Injection Date: 02/04/2025

Instrument ID: BNA_F DFTPP Injection Time: 15:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.7
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	12.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.1 (18.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141410.D	02/04/2025	15:58
JPP-46.2-012925DL	Q1232-03DL	BF141426.D	02/04/2025	23:04

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141434.D DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_F DFTPP Injection Time: 09:36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	42.7
68	Less than 2.0% of mass 69	0.7 (2) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	48.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	26.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	12.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.5 (19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141435.D	02/05/2025	10:02
PB166418BL	PB166418BL	BF141440.D	02/05/2025	12:13
PB166418BS	PB166418BS	BF141441.D	02/05/2025	12:39

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141471.D DFTPP Injection Date: 02/06/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	49.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.6
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	12.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (18.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141472.D	02/06/2025	11:07
SSTDICC005	SSTDICC005	BF141473.D	02/06/2025	11:34
SSTDICC010	SSTDICC010	BF141474.D	02/06/2025	12:00
SSTDICC020	SSTDICC020	BF141475.D	02/06/2025	12:26
SSTDICCC040	SSTDICCC040	BF141476.D	02/06/2025	12:55
SSTDICC050	SSTDICC050	BF141477.D	02/06/2025	13:21
SSTDICC060	SSTDICC060	BF141478.D	02/06/2025	13:47
SSTDICC080	SSTDICC080	BF141479.D	02/06/2025	14:14

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141505.D DFTPP Injection Date: 02/07/2025

Instrument ID: BNA_F DFTPP Injection Time: 14:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.6
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.7
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	47.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	13.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.3 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141506.D	02/07/2025	14:33
JPP-42.2-012925	Q1232-15	BF141519.D	02/07/2025	20:21
JPP-46.1-012925	Q1232-07	BF141523.D	02/07/2025	22:07
JPP-42.1-012925	Q1232-11	BF141527.D	02/07/2025	23:53
JPP-51.1-012925	Q1232-19	BF141528.D	02/08/2025	00:20

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141530.D DFTPP Injection Date: 02/10/2025

Instrument ID: BNA_F DFTPP Injection Time: 11:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.6
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	37.3
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	49.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	12.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.4 (19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141531.D	02/10/2025	11:34
JPP-42.2-012925DL	Q1232-15DL	BF141547.D	02/10/2025	20:45

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	140033	6.798	558386	8.08	299701	9.84
	UPPER LIMIT	280066	7.298	1116770	8.581	599402	10.339
	LOWER LIMIT	70016.5	6.298	279193	7.581	149851	9.339
	EPA SAMPLE NO.						
01	357MS	151192	6.80	601644	8.08	313664	9.84
02	357MSD	149445	6.80	587795	8.08	309142	9.84

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	493954	11.322	281629	13.968	286623	15.433
	UPPER LIMIT	987908	11.822	563258	14.468	573246	15.933
	LOWER LIMIT	246977	10.822	140815	13.468	143312	14.933
	EPA SAMPLE NO.						
01	357MS	473142	11.32	293043	13.97	307605	15.43
02	357MSD	457150	11.32	288493	13.97	294341	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141373.D Time Analyzed: 17:14

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	104167	6.798	414412	8.08	226326	9.83
	UPPER LIMIT	208334	7.298	828824	8.581	452652	10.333
	LOWER LIMIT	52083.5	6.298	207206	7.581	113163	9.333
	EPA SAMPLE NO.						
01	JPP-46.2-012925	82605	6.79	314257	8.08	148040	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

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* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141373.D Time Analyzed: 17:14

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	383558	11.322	233911	13.963	231577	15.415
	UPPER LIMIT	767116	11.822	467822	14.463	463154	15.915
	LOWER LIMIT	191779	10.822	116956	13.463	115789	14.915
	EPA SAMPLE NO.						
01	JPP-46.2-012925	202244	11.32	154541	13.97	126974	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

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* Values outside of QC limits.

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141410.D Time Analyzed: 15:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	89972	6.792	349697	8.08	187729	9.83
	UPPER LIMIT	179944	7.292	699394	8.575	375458	10.328
	LOWER LIMIT	44986	6.292	174849	7.575	93864.5	9.328
	EPA SAMPLE NO.						
01	JPP-46.2-012925DL	75582	6.79	307005	8.07	169441	9.82

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141410.D Time Analyzed: 15:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	325046	11.316	235785	13.963	203742	15.421
	UPPER LIMIT	650092	11.816	471570	14.463	407484	15.921
	LOWER LIMIT	162523	10.816	117893	13.463	101871	14.921
	EPA SAMPLE NO.						
01	JPP-46.2-012925DL	294483	11.31	204133	13.96	214815	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141435.D Time Analyzed: 10:02

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	78610	6.792	301871	8.08	162758	9.83
	UPPER LIMIT	157220	7.292	603742	8.575	325516	10.328
	LOWER LIMIT	39305	6.292	150936	7.575	81379	9.328
	EPA SAMPLE NO.						
01	PB166418BL	76450	6.79	302478	8.07	163001	9.83
02	PB166418BS	69377	6.79	275008	8.08	148846	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141435.D Time Analyzed: 10:02

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	271503	11.316	168458	13.963	170248	15.427
	UPPER LIMIT	543006	11.816	336916	14.463	340496	15.927
	LOWER LIMIT	135752	10.816	84229	13.463	85124	14.927
	EPA SAMPLE NO.						
01	PB166418BL	280778	11.32	198135	13.96	160441	15.43
02	PB166418BS	260150	11.32	177509	13.96	152303	15.43

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

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* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/07/2025

Lab File ID: BF141506.D Time Analyzed: 14:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	91880	6.787	360290	8.08	198348	9.83
	UPPER LIMIT	183760	7.287	720580	8.575	396696	10.328
	LOWER LIMIT	45940	6.287	180145	7.575	99174	9.328
	EPA SAMPLE NO.						
01	JPP-42.2-012925	70012	6.79	264489	8.08	130756	9.83
02	JPP-51.1-012925	82126	6.79	311011	8.08	153227	9.83
03	JPP-46.1-012925	83684	6.79	306437	8.08	148193	9.83
04	JPP-42.1-012925	81132	6.79	300029	8.08	147138	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/07/2025

Lab File ID: BF141506.D Time Analyzed: 14:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	340922	11.316	238177	13.957	192868	15.416
	UPPER LIMIT	681844	11.816	476354	14.457	385736	15.916
	LOWER LIMIT	170461	10.816	119089	13.457	96434	14.916
	EPA SAMPLE NO.						
01	JPP-42.2-012925	201587	11.32	129006	13.96	98648	15.42
02	JPP-51.1-012925	233464	11.32	136681	13.97	111370	15.46
03	JPP-46.1-012925	233826	11.32	140011	13.96	112168	15.43
04	JPP-42.1-012925	226182	11.32	133028	13.96	108190	15.44

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/10/2025

Lab File ID: BF141531.D Time Analyzed: 11:34

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	91504	6.792	356056	8.08	192109	9.83
	UPPER LIMIT	183008	7.292	712112	8.575	384218	10.327
	LOWER LIMIT	45752	6.292	178028	7.575	96054.5	9.327
	EPA SAMPLE NO.						
01	JPP-42.2-012925DL	73453	6.79	289682	8.07	146988	9.82

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/10/2025

Lab File ID: BF141531.D Time Analyzed: 11:34

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	313129	11.316	193608	13.963	177316	15.439
	UPPER LIMIT	626258	11.816	387216	14.463	354632	15.939
	LOWER LIMIT	156565	10.816	96804	13.463	88658	14.939
	EPA SAMPLE NO.						
01	JPP-42.2-012925DL	202539	11.31	173399	13.95	150535	15.40

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
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QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BL	SDG No.:	Q1232
Lab Sample ID:	PB166418BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	330	U	180	330	ug/Kg
108-95-2	Phenol	170	U	82.8	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	170	U	83.6	170	ug/Kg
95-57-8	2-Chlorophenol	170	U	83.4	170	ug/Kg
95-48-7	2-Methylphenol	170	U	80.5	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	170	U	90.8	170	ug/Kg
98-86-2	Acetophenone	170	U	86.8	170	ug/Kg
65794-96-9	3+4-Methylphenols	330	U	79.7	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	79.9	U	40.3	79.9	ug/Kg
67-72-1	Hexachloroethane	170	U	82.9	170	ug/Kg
98-95-3	Nitrobenzene	170	U	90.7	170	ug/Kg
78-59-1	Isophorone	170	U	84.5	170	ug/Kg
88-75-5	2-Nitrophenol	170	U	94.4	170	ug/Kg
105-67-9	2,4-Dimethylphenol	170	U	93.1	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	170	U	85.7	170	ug/Kg
120-83-2	2,4-Dichlorophenol	170	U	75.4	170	ug/Kg
91-20-3	Naphthalene	170	U	82.5	170	ug/Kg
106-47-8	4-Chloroaniline	170	U	82.5	170	ug/Kg
87-68-3	Hexachlorobutadiene	170	U	83.2	170	ug/Kg
105-60-2	Caprolactam	330	U	86.7	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	170	U	77.4	170	ug/Kg
91-57-6	2-Methylnaphthalene	170	U	82.4	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	330	U	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	170	U	71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	170	U	74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	170	U	87.3	170	ug/Kg
91-58-7	2-Chloronaphthalene	170	U	83.2	170	ug/Kg
88-74-4	2-Nitroaniline	170	U	94.9	170	ug/Kg
131-11-3	Dimethylphthalate	170	U	81.6	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BL	SDG No.:	Q1232
Lab Sample ID:	PB166418BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	170	U	86.4	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	170	U	83.1	170	ug/Kg
99-09-2	3-Nitroaniline	170	U	89.1	170	ug/Kg
83-32-9	Acenaphthene	170	U	81.0	170	ug/Kg
51-28-5	2,4-Dinitrophenol	330	U	240	330	ug/Kg
100-02-7	4-Nitrophenol	330	U	120	330	ug/Kg
132-64-9	Dibenzofuran	170	U	84.3	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	170	U	86.1	170	ug/Kg
84-66-2	Diethylphthalate	170	U	80.0	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	170	U	85.5	170	ug/Kg
86-73-7	Fluorene	170	U	85.4	170	ug/Kg
100-01-6	4-Nitroaniline	170	U	110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	330	U	120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	170	U	81.5	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	170	U	78.8	170	ug/Kg
118-74-1	Hexachlorobenzene	170	U	84.9	170	ug/Kg
1912-24-9	Atrazine	170	U	91.3	170	ug/Kg
87-86-5	Pentachlorophenol	330	U	77.2	330	ug/Kg
85-01-8	Phenanthrene	170	U	83.9	170	ug/Kg
120-12-7	Anthracene	170	U	84.3	170	ug/Kg
86-74-8	Carbazole	170	U	80.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	170	U	84.2	170	ug/Kg
206-44-0	Fluoranthene	170	U	81.6	170	ug/Kg
129-00-0	Pyrene	170	U	82.9	170	ug/Kg
85-68-7	Butylbenzylphthalate	170	U	96.7	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	330	U	98.5	330	ug/Kg
56-55-3	Benzo(a)anthracene	170	U	80.6	170	ug/Kg
218-01-9	Chrysene	170	U	79.4	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	170	U	90.9	170	ug/Kg
117-84-0	Di-n-octyl phthalate	330	U	110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	170	U	81.0	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BL	SDG No.:	Q1232
Lab Sample ID:	PB166418BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	170	U	82.5	170	ug/Kg
50-32-8	Benzo(a)pyrene	170	U	92.9	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	170	U	78.0	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	170	U	81.1	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	170	U	80.0	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U	86.7	170	ug/Kg
123-91-1	1,4-Dioxane	170	U	110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	170	U	74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	134		18 - 112	89%	SPK: 150
13127-88-3	Phenol-d6	129		15 - 107	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.1		18 - 107	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.5		20 - 109	97%	SPK: 100
118-79-6	2,4,6-Tribromophenol	147		10 - 116	98%	SPK: 150
1718-51-0	Terphenyl-d14	94.3		10 - 105	94%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	76500	6.786			
1146-65-2	Naphthalene-d8	302000	8.069			
15067-26-2	Acenaphthene-d10	163000	9.827			
1517-22-2	Phenanthrene-d10	281000	11.316			
1719-03-5	Chrysene-d12	198000	13.957			
1520-96-3	Perylene-d12	160000	15.433			
TENTATIVE IDENTIFIED COMPOUNDS						
004744-10-9	Propane, 1,1-dimethoxy-	120	J		2.17	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	71.0	A		5.02	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166418BL			SDG No.:	Q1232
Lab Sample ID:	PB166418BL			Matrix:	SOIL
Analytical Method:	SW8270			% Solid:	100
Sample Wt/Vol:	30.02	Units:	g	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC-TCL BNA -20
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BS	SDG No.:	Q1232
Lab Sample ID:	PB166418BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1700		180	330	ug/Kg
108-95-2	Phenol	1400		82.9	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1400		83.7	170	ug/Kg
95-57-8	2-Chlorophenol	1500		83.5	170	ug/Kg
95-48-7	2-Methylphenol	1400		80.6	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		90.9	170	ug/Kg
98-86-2	Acetophenone	1700		86.9	170	ug/Kg
65794-96-9	3+4-Methylphenols	1500		79.8	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1400		40.3	80.0	ug/Kg
67-72-1	Hexachloroethane	1500		83.0	170	ug/Kg
98-95-3	Nitrobenzene	1400		90.8	170	ug/Kg
78-59-1	Isophorone	1500		84.6	170	ug/Kg
88-75-5	2-Nitrophenol	1500		94.5	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1800		93.2	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1300		85.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		75.5	170	ug/Kg
91-20-3	Naphthalene	1400		82.6	170	ug/Kg
106-47-8	4-Chloroaniline	580		82.6	170	ug/Kg
87-68-3	Hexachlorobutadiene	1500		83.3	170	ug/Kg
105-60-2	Caprolactam	1600		86.8	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		77.5	170	ug/Kg
91-57-6	2-Methylnaphthalene	1400		82.5	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	6300	E	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1500		71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1400		74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	1600		87.4	170	ug/Kg
91-58-7	2-Chloronaphthalene	1400		83.3	170	ug/Kg
88-74-4	2-Nitroaniline	1500		95.0	170	ug/Kg
131-11-3	Dimethylphthalate	1500		81.7	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BS	SDG No.:	Q1232
Lab Sample ID:	PB166418BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1600		86.5	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1400		83.2	170	ug/Kg
99-09-2	3-Nitroaniline	750		89.2	170	ug/Kg
83-32-9	Acenaphthene	1700		81.1	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3700	E	240	330	ug/Kg
100-02-7	4-Nitrophenol	3200	E	120	330	ug/Kg
132-64-9	Dibenzofuran	1500		84.4	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		86.2	170	ug/Kg
84-66-2	Diethylphthalate	1500		80.1	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1500		85.6	170	ug/Kg
86-73-7	Fluorene	1500		85.5	170	ug/Kg
100-01-6	4-Nitroaniline	1500		110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1700		120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1500		81.6	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		78.9	170	ug/Kg
118-74-1	Hexachlorobenzene	1500		85.0	170	ug/Kg
1912-24-9	Atrazine	1700		91.4	170	ug/Kg
87-86-5	Pentachlorophenol	3100	E	77.3	330	ug/Kg
85-01-8	Phenanthrene	1500		84.0	170	ug/Kg
120-12-7	Anthracene	1600		84.4	170	ug/Kg
86-74-8	Carbazole	1600		80.3	170	ug/Kg
84-74-2	Di-n-butylphthalate	1500		84.3	170	ug/Kg
206-44-0	Fluoranthene	1600		81.7	170	ug/Kg
129-00-0	Pyrene	1400		83.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1500		96.8	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	710		98.6	330	ug/Kg
56-55-3	Benzo(a)anthracene	1500		80.7	170	ug/Kg
218-01-9	Chrysene	1400		79.5	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1500		91.0	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1400		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		81.1	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BS	SDG No.:	Q1232
Lab Sample ID:	PB166418BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1600		82.6	170	ug/Kg
50-32-8	Benzo(a)pyrene	1600		93.0	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		78.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1500		81.2	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400		80.1	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		86.8	170	ug/Kg
123-91-1	1,4-Dioxane	1300		110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1600		74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	139		18 - 112	92%	SPK: 150
13127-88-3	Phenol-d6	133		15 - 107	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.1		18 - 107	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.9		20 - 109	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	160		10 - 116	106%	SPK: 150
1718-51-0	Terphenyl-d14	96.1		10 - 105	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	69400	6.793			
1146-65-2	Naphthalene-d8	275000	8.075			
15067-26-2	Acenaphthene-d10	149000	9.828			
1517-22-2	Phenanthrene-d10	260000	11.316			
1719-03-5	Chrysene-d12	178000	13.963			
1520-96-3	Perylene-d12	152000	15.427			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1000		130	230	ug/Kg
108-95-2	Phenol	880		58.6	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	900		59.2	120	ug/Kg
95-57-8	2-Chlorophenol	900		59.0	120	ug/Kg
95-48-7	2-Methylphenol	860		57.0	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	880		64.2	120	ug/Kg
98-86-2	Acetophenone	990		61.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	920		56.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	900		28.5	56.5	ug/Kg
67-72-1	Hexachloroethane	860		58.7	120	ug/Kg
98-95-3	Nitrobenzene	840		64.2	120	ug/Kg
78-59-1	Isophorone	900		59.8	120	ug/Kg
88-75-5	2-Nitrophenol	900		66.8	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		65.9	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	880		60.6	120	ug/Kg
120-83-2	2,4-Dichlorophenol	900		53.4	120	ug/Kg
91-20-3	Naphthalene	850		58.4	120	ug/Kg
106-47-8	4-Chloroaniline	210		58.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	840		58.9	120	ug/Kg
105-60-2	Caprolactam	990		61.3	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	870		54.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	840		58.3	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3200	E	110	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	920		50.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	890		52.3	120	ug/Kg
92-52-4	1,1-Biphenyl	990		61.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	850		58.9	120	ug/Kg
88-74-4	2-Nitroaniline	900		67.1	120	ug/Kg
131-11-3	Dimethylphthalate	910		57.7	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	940		61.1	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	860		58.8	120	ug/Kg
99-09-2	3-Nitroaniline	530		63.0	120	ug/Kg
83-32-9	Acenaphthene	980		57.3	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2200	E	170	230	ug/Kg
100-02-7	4-Nitrophenol	1600		82.0	230	ug/Kg
132-64-9	Dibenzofuran	870		59.6	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	880		60.9	120	ug/Kg
84-66-2	Diethylphthalate	900		56.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	850		60.5	120	ug/Kg
86-73-7	Fluorene	850		60.4	120	ug/Kg
100-01-6	4-Nitroaniline	800		75.6	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100		82.7	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	990		57.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	970		55.8	120	ug/Kg
118-74-1	Hexachlorobenzene	940		60.1	120	ug/Kg
1912-24-9	Atrazine	1000		64.6	120	ug/Kg
87-86-5	Pentachlorophenol	1800		54.6	230	ug/Kg
85-01-8	Phenanthrene	940		59.4	120	ug/Kg
120-12-7	Anthracene	950		59.6	120	ug/Kg
86-74-8	Carbazole	850		56.7	120	ug/Kg
84-74-2	Di-n-butylphthalate	960		59.6	120	ug/Kg
206-44-0	Fluoranthene	840		57.7	120	ug/Kg
129-00-0	Pyrene	740		58.7	120	ug/Kg
85-68-7	Butylbenzylphthalate	860		68.4	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	670		69.7	230	ug/Kg
56-55-3	Benzo(a)anthracene	860		57.0	120	ug/Kg
218-01-9	Chrysene	910		56.2	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	890		64.3	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1000		77.7	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	1000		57.3	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	890		58.4	120	ug/Kg
50-32-8	Benzo(a)pyrene	990		65.7	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	720		55.2	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	730		57.4	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	640		56.6	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	960		61.3	120	ug/Kg
123-91-1	1,4-Dioxane	900		77.7	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	930		52.8	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	80.0		18 - 112	53%	SPK: 150
13127-88-3	Phenol-d6	78.3		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	54.3		18 - 107	54%	SPK: 100
321-60-8	2-Fluorobiphenyl	53.2		20 - 109	53%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.6		10 - 116	54%	SPK: 150
1718-51-0	Terphenyl-d14	46.0		10 - 105	46%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	151000	6.798			
1146-65-2	Naphthalene-d8	602000	8.08			
15067-26-2	Acenaphthene-d10	314000	9.839			
1517-22-2	Phenanthrene-d10	473000	11.321			
1719-03-5	Chrysene-d12	293000	13.968			
1520-96-3	Perylene-d12	308000	15.427			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1100		130	230	ug/Kg
108-95-2	Phenol	920		58.6	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	940		59.2	120	ug/Kg
95-57-8	2-Chlorophenol	950		59.0	120	ug/Kg
95-48-7	2-Methylphenol	900		57.0	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	920		64.3	120	ug/Kg
98-86-2	Acetophenone	1100		61.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	970		56.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	940		28.5	56.6	ug/Kg
67-72-1	Hexachloroethane	910		58.7	120	ug/Kg
98-95-3	Nitrobenzene	910		64.2	120	ug/Kg
78-59-1	Isophorone	960		59.8	120	ug/Kg
88-75-5	2-Nitrophenol	970		66.8	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1200		65.9	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	950		60.7	120	ug/Kg
120-83-2	2,4-Dichlorophenol	950		53.4	120	ug/Kg
91-20-3	Naphthalene	900		58.4	120	ug/Kg
106-47-8	4-Chloroaniline	240		58.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	890		58.9	120	ug/Kg
105-60-2	Caprolactam	1100		61.4	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	930		54.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	890		58.3	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3400	E	110	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	970		50.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	950		52.3	120	ug/Kg
92-52-4	1,1-Biphenyl	1000		61.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	900		58.9	120	ug/Kg
88-74-4	2-Nitroaniline	950		67.2	120	ug/Kg
131-11-3	Dimethylphthalate	970		57.8	120	ug/Kg

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

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208-96-8	Acenaphthylene	990		61.2	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	910		58.8	120	ug/Kg
99-09-2	3-Nitroaniline	550		63.1	120	ug/Kg
83-32-9	Acenaphthene	1000		57.3	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2300	E	170	230	ug/Kg
100-02-7	4-Nitrophenol	1700		82.0	230	ug/Kg
132-64-9	Dibenzofuran	920		59.7	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	930		61.0	120	ug/Kg
84-66-2	Diethylphthalate	950		56.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	900		60.5	120	ug/Kg
86-73-7	Fluorene	900		60.5	120	ug/Kg
100-01-6	4-Nitroaniline	870		75.7	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200		82.7	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1100		57.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000		55.8	120	ug/Kg
118-74-1	Hexachlorobenzene	990		60.1	120	ug/Kg
1912-24-9	Atrazine	1100		64.6	120	ug/Kg
87-86-5	Pentachlorophenol	2000	E	54.7	230	ug/Kg
85-01-8	Phenanthrene	1000		59.4	120	ug/Kg
120-12-7	Anthracene	1000		59.7	120	ug/Kg
86-74-8	Carbazole	920		56.8	120	ug/Kg
84-74-2	Di-n-butylphthalate	1000		59.6	120	ug/Kg
206-44-0	Fluoranthene	920		57.8	120	ug/Kg
129-00-0	Pyrene	810		58.7	120	ug/Kg
85-68-7	Butylbenzylphthalate	930		68.4	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	750		69.7	230	ug/Kg
56-55-3	Benzo(a)anthracene	930		57.1	120	ug/Kg
218-01-9	Chrysene	980		56.2	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	970		64.3	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1100		77.8	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	990		57.3	120	ug/Kg

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1100		58.4	120	ug/Kg
50-32-8	Benzo(a)pyrene	1100		65.8	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	770		55.2	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	780		57.4	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	690		56.6	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1000		61.4	120	ug/Kg
123-91-1	1,4-Dioxane	950		77.8	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1000		52.8	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	84.0		18 - 112	56%	SPK: 150
13127-88-3	Phenol-d6	82.0		15 - 107	55%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.9		18 - 107	58%	SPK: 100
321-60-8	2-Fluorobiphenyl	55.5		20 - 109	55%	SPK: 100
118-79-6	2,4,6-Tribromophenol	84.1		10 - 116	56%	SPK: 150
1718-51-0	Terphenyl-d14	49.7		10 - 105	50%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	149000	6.798			
1146-65-2	Naphthalene-d8	588000	8.081			
15067-26-2	Acenaphthene-d10	309000	9.839			
1517-22-2	Phenanthrene-d10	457000	11.322			
1719-03-5	Chrysene-d12	288000	13.968			
1520-96-3	Perylene-d12	294000	15.421			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jan 29 17:41:25 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141290.D 5 =BF141291.D 10 =BF141292.D 20 =BF141293.D 40 =BF141294.D 50 =BF141295.D 60 =BF141296.D 80 =BF1412
97.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.600	0.603	0.597	0.538	0.574	0.569	0.530	0.573	5.19
3)		Pyridine		1.364	1.410	1.450	1.320	1.394	1.404	1.322	1.380	3.46
4)		n-Nitrosodimet...		0.770	0.789	0.824	0.751	0.803	0.813	0.771	0.789	3.32
5)	S	2-Fluorophenol		1.428	1.391	1.402	1.201	1.267	1.268	1.163	1.303	8.03
6)		Aniline		1.480	1.511	1.542	1.359	1.404	1.350	1.174	1.403	8.93
7)	S	Phenol-d6		1.841	1.800	1.743	1.520	1.611	1.611	1.475	1.657	8.47
8)		2-Chlorophenol		1.535	1.510	1.487	1.297	1.353	1.355	1.237	1.396	8.24
9)		Benzaldehyde		1.166	1.130	1.104	0.895	0.861	0.837	0.727	0.960	17.81
10)	C	Phenol		1.938	1.879	1.884	1.643	1.696	1.704	1.554	1.757	8.22
11)		bis(2-Chloroet...		1.478	1.413	1.426	1.232	1.299	1.329	1.253	1.347	6.93
12)		1,3-Dichlorobe...		1.697	1.668	1.648	1.429	1.499	1.474	1.362	1.540	8.49
13)	C	1,4-Dichlorobe...		1.719	1.663	1.659	1.432	1.502	1.487	1.365	1.547	8.66
14)		1,2-Dichlorobe...		1.629	1.609	1.565	1.338	1.392	1.366	1.240	1.448	10.46
15)		Benzyl Alcohol		1.138	1.201	1.216	1.082	1.137	1.125	1.028	1.133	5.72
16)		2,2'-oxybis(1-...		2.533	2.484	2.495	2.189	2.296	2.287	2.112	2.342	7.01
17)		2-Methylphenol		1.237	1.175	1.210	1.042	1.107	1.120	1.053	1.135	6.62
18)		Hexachloroethane		0.609	0.612	0.610	0.530	0.560	0.561	0.513	0.571	7.09
19)	P	n-Nitroso-di-n...	1.084	1.052	1.060	1.032	0.895	0.936	0.945	0.874	0.985	8.27
20)		3+4-Methylphenols		1.561	1.564	1.502	1.287	1.331	1.323	1.186	1.393	10.65
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.547	0.523	0.517	0.436	0.449	0.443	0.412	0.475	11.06
23)	S	Nitrobenzene-d5		0.405	0.396	0.406	0.354	0.373	0.373	0.349	0.379	6.14
24)		Nitrobenzene		0.418	0.411	0.420	0.371	0.385	0.389	0.358	0.393	6.14
25)		Isophorone		0.698	0.685	0.694	0.611	0.640	0.648	0.615	0.656	5.62
26)	C	2-Nitrophenol		0.176	0.187	0.199	0.177	0.189	0.191	0.179	0.185	4.66
27)		2,4-Dimethylph...		0.244	0.239	0.249	0.224	0.235	0.238	0.223	0.236	4.12
28)		bis(2-Chloroet...		0.454	0.440	0.445	0.389	0.405	0.411	0.384	0.418	6.70
29)	C	2,4-Dichloroph...		0.307	0.300	0.312	0.271	0.284	0.286	0.262	0.289	6.39
30)		1,2,4-Trichlor...		0.372	0.354	0.354	0.304	0.318	0.316	0.292	0.330	9.11
31)		Naphthalene		1.193	1.145	1.140	0.976	1.020	1.002	0.919	1.057	9.72
32)		Benzoic acid		0.140	0.178	0.238	0.221	0.241	0.259	0.242	0.217	19.59
33)		4-Chloroaniline		0.382	0.378	0.391	0.338	0.351	0.349	0.318	0.358	7.38
34)	C	Hexachlorobuta...		0.209	0.207	0.209	0.179	0.190	0.187	0.174	0.194	7.52
35)		Caprolactam		0.097	0.095	0.102	0.089	0.094	0.096	0.089	0.094	4.89
36)	C	4-Chloro-3-met...		0.328	0.328	0.334	0.287	0.301	0.307	0.283	0.310	6.71
37)		2-Methylnaphth...		0.755	0.732	0.724	0.624	0.643	0.639	0.583	0.672	9.68
38)		1-Methylnaphth...		0.757	0.723	0.711	0.606	0.625	0.623	0.573	0.660	10.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.613	0.603	0.534	0.555	0.551	0.512	0.569	7.25
41)	P	Hexachlorocycl...	0.136	0.157	0.174	0.172	0.182	0.181	0.174	0.168	9.69
42)	S	2,4,6-Tribromo...	0.198	0.198	0.198	0.173	0.175	0.179	0.163	0.183	7.98
43)	C	2,4,6-Trichlor...	0.381	0.380	0.390	0.364	0.375	0.369	0.347	0.372	3.79
44)		2,4,5-Trichlor...	0.429	0.425	0.429	0.377	0.391	0.403	0.383	0.405	5.50
45)	S	2-Fluorobiphenyl	1.597	1.464	1.398	1.184	1.202	1.168	1.083	1.299	14.48
46)		1,1'-Biphenyl	1.810	1.692	1.650	1.454	1.492	1.460	1.360	1.560	10.27
47)		2-Chloronaphth...	1.396	1.310	1.290	1.122	1.159	1.156	1.077	1.216	9.59
48)		2-Nitroaniline	0.386	0.389	0.407	0.364	0.382	0.385	0.364	0.382	3.91
49)		Acenaphthylene	1.921	1.854	1.815	1.595	1.620	1.612	1.495	1.702	9.38
50)		Dimethylphthalate	1.498	1.456	1.445	1.239	1.299	1.296	1.223	1.351	8.34
51)		2,6-Dinitrotol...	0.333	0.331	0.333	0.296	0.304	0.309	0.290	0.314	5.90
52)	C	Acenaphthene	1.361	1.300	1.291	1.128	1.170	1.180	1.079	1.216	8.46
53)		3-Nitroaniline	0.321	0.330	0.341	0.303	0.293	0.298	0.264	0.307	8.44
54)	P	2,4-Dinitrophenol		0.102	0.136	0.147	0.156	0.169	0.164	0.146	16.81
55)		Dibenzofuran	1.869	1.788	1.755	1.518	1.525	1.539	1.398	1.627	10.72
56)	P	4-Nitrophenol	0.187	0.215	0.251	0.224	0.231	0.244	0.222	0.225	9.21
57)		2,4-Dinitrotol...	0.424	0.431	0.443	0.386	0.392	0.404	0.362	0.406	7.03
58)		Fluorene	1.512	1.410	1.353	1.167	1.164	1.172	1.059	1.262	12.96
59)		2,3,4,6-Tetrac...	0.325	0.343	0.341	0.304	0.305	0.324	0.291	0.319	6.11
60)		Diethylphthalate	1.470	1.417	1.412	1.225	1.238	1.260	1.146	1.310	9.32
61)		4-Chlorophenyl...	0.738	0.694	0.659	0.567	0.565	0.571	0.522	0.617	13.04
62)		4-Nitroaniline	0.297	0.312	0.330	0.290	0.294	0.311	0.281	0.302	5.45
63)		Azobenzene	1.464	1.411	1.390	1.224	1.249	1.276	1.162	1.311	8.51
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.105	0.122	0.125	0.131	0.134	0.131	0.118	16.29
66)	c	n-Nitrosodiphe...	0.716	0.684	0.674	0.626	0.622	0.614	0.593	0.647	6.89
67)		4-Bromophenyl-...	0.235	0.234	0.234	0.217	0.218	0.220	0.210	0.224	4.57
68)		Hexachlorobenzene	0.257	0.250	0.248	0.229	0.229	0.232	0.217	0.238	6.07
69)		Atrazine	0.211	0.202	0.213	0.213	0.215	0.235	0.224	0.216	4.86
70)	C	Pentachlorophenol	0.112	0.136	0.146	0.143	0.146	0.149	0.141	0.139	9.08
71)		Phenanthrene	1.233	1.170	1.142	1.025	1.008	1.010	0.937	1.075	9.96
72)		Anthracene	1.179	1.146	1.120	1.009	0.999	0.996	0.924	1.053	9.00
73)		Carbazole	1.019	1.014	1.021	0.899	0.878	0.900	0.807	0.934	9.04
74)		Di-n-butylphth...	1.244	1.239	1.245	1.086	1.051	1.081	0.978	1.132	9.65
75)	C	Fluoranthene	1.195	1.202	1.196	1.013	0.963	0.982	0.880	1.062	12.57
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.882	0.480	0.210	0.730	0.906	0.724	0.556	0.641	38.34
78)		Pyrene	2.178	2.063	2.002	1.754	1.870	1.898	1.674	1.920	9.14
79)	S	Terphenyl-d14	1.543	1.411	1.370	1.183	1.238	1.230	1.103	1.297	11.68
80)		Butylbenzylpht...	0.686	0.690	0.739	0.626	0.657	0.688	0.610	0.671	6.49
81)		Benzo(a)anthra...	1.532	1.410	1.453	1.270	1.375	1.355	1.265	1.380	6.96
82)		3,3'-Dichlorob...	0.412	0.422	0.427	0.418	0.478	0.466	0.449	0.439	5.82
83)		Chrysene	1.332	1.325	1.342	1.136	1.267	1.243	1.210	1.265	5.98
84)		Bis(2-ethylhex...	0.882	0.903	0.956	0.785	0.831	0.834	0.764	0.851	7.93
85)	c	Di-n-octyl pht...	1.194	1.267	1.438	1.230	1.365	1.406	1.352	1.321	6.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.217	1.268	1.337	1.257	1.348	1.322	1.287	1.291	3.67
88)		Benzo(b)fluora...	1.358	1.382	1.328	1.120	1.265	1.218	1.136	1.258	8.33
89)		Benzo(k)fluora...	1.167	1.114	1.274	1.083	1.049	1.060	1.054	1.114	7.32
90)	C	Benzo(a)pyrene	1.118	1.059	1.131	1.011	1.061	1.051	1.010	1.063	4.44
91)		Dibenzo(a,h)an...	0.966	1.001	1.101	1.016	1.087	1.071	1.028	1.039	4.73
92)		Benzo(g,h,i)pe...	1.011	1.075	1.139	1.043	1.123	1.105	1.063	1.080	4.22

(#) = Out of Range

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Feb 06 16:58:59 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141472.D 5 =BF141473.D 10 =BF141474.D 20 =BF141475.D 40 =BF141476.D 50 =BF141477.D 60 =BF141478.D 80 =BF1414
79.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.511	0.519	0.523	0.517	0.502	0.521	0.501	0.513	1.73
3)		Pyridine		1.053	1.205	1.311	1.263	1.256	1.261	1.204	1.222	6.79
4)		n-Nitrosodimet...		0.737	0.774	0.820	0.818	0.835	0.846	0.833	0.809	4.83
5)	S	2-Fluorophenol		1.235	1.290	1.365	1.289	1.273	1.264	1.214	1.276	3.77
6)		Aniline		1.476	1.545	1.650	1.538	1.506	1.494	1.379	1.513	5.42
7)	S	Phenol-d6		1.619	1.629	1.704	1.613	1.599	1.585	1.538	1.612	3.13
8)		2-Chlorophenol		1.399	1.410	1.446	1.379	1.368	1.345	1.302	1.378	3.38
9)		Benzaldehyde		0.892	0.993	0.981	0.821	0.747	0.706		0.857	13.92
10)	C	Phenol		1.693	1.681	1.817	1.685	1.659	1.644	1.569	1.678	4.42
11)		bis(2-Chloroet...		1.262	1.229	1.296	1.266	1.252	1.262	1.256	1.261	1.59
12)		1,3-Dichlorobe...		1.473	1.482	1.554	1.441	1.441	1.430	1.366	1.455	3.95
13)	C	1,4-Dichlorobe...		1.546	1.538	1.571	1.471	1.465	1.439	1.379	1.487	4.59
14)		1,2-Dichlorobe...		1.393	1.439	1.473	1.374	1.351	1.345	1.285	1.380	4.55
15)		Benzyl Alcohol		1.191	1.251	1.322	1.262	1.248	1.218	1.163	1.236	4.19
16)		2,2'-oxybis(1-...		2.222	2.245	2.313	2.165	2.119	2.082	1.959	2.158	5.45
17)		2-Methylphenol		1.116	1.089	1.121	1.077	1.059	1.066	1.024	1.079	3.15
18)		Hexachloroethane		0.539	0.545	0.589	0.553	0.556	0.544	0.526	0.550	3.59
19)	P	n-Nitroso-di-n...	0.950	0.978	0.985	1.039	0.969	0.947	0.941	0.907	0.964	4.03
20)		3+4-Methylphenols		1.442	1.417	1.459	1.372	1.344	1.319	1.244	1.371	5.52
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.517	0.502	0.521	0.493	0.483	0.488	0.478	0.498	3.35
23)	S	Nitrobenzene-d5		0.380	0.379	0.396	0.385	0.378	0.381	0.384	0.383	1.58
24)		Nitrobenzene		0.370	0.371	0.383	0.374	0.369	0.375	0.376	0.374	1.29
25)		Isophorone		0.611	0.594	0.633	0.611	0.601	0.617	0.614	0.611	2.04
26)	C	2-Nitrophenol		0.171	0.175	0.190	0.193	0.190	0.193	0.191	0.186	4.91
27)		2,4-Dimethylph...		0.208	0.212	0.221	0.223	0.218	0.220	0.220	0.217	2.46
28)		bis(2-Chloroet...		0.384	0.390	0.408	0.394	0.387	0.391	0.388	0.392	2.03
29)	C	2,4-Dichloroph...		0.286	0.287	0.312	0.296	0.290	0.292	0.292	0.294	2.95
30)		1,2,4-Trichlor...		0.327	0.321	0.331	0.317	0.312	0.317	0.314	0.320	2.12
31)		Naphthalene		1.067	1.041	1.096	1.037	1.012	1.022	1.012	1.041	2.98
32)		Benzoic acid			0.186	0.217	0.229	0.233	0.243	0.246	0.226	9.70
33)		4-Chloroaniline		0.354	0.352	0.382	0.364	0.360	0.364	0.370	0.363	2.82
34)	C	Hexachlorobuta...		0.193	0.191	0.200	0.192	0.188	0.191	0.189	0.192	2.01
35)		Caprolactam		0.083	0.085	0.094	0.093	0.088	0.091	0.092	0.089	4.75
36)	C	4-Chloro-3-met...		0.310	0.324	0.342	0.329	0.324	0.325	0.324	0.325	2.91
37)		2-Methylnaphth...		0.688	0.689	0.719	0.669	0.659	0.666	0.652	0.677	3.42
38)		1-Methylnaphth...		0.680	0.657	0.691	0.656	0.637	0.640	0.631	0.656	3.40

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.582	0.588	0.600	0.584	0.560	0.574	0.562	0.579	2.50
41)	P	Hexachlorocycl...		0.138	0.180	0.204	0.205	0.214	0.214	0.192	15.36
42)	S	2,4,6-Tribromo...	0.201	0.200	0.210	0.200	0.199	0.201	0.196	0.201	2.08
43)	C	2,4,6-Trichlor...	0.364	0.365	0.389	0.377	0.373	0.378	0.372	0.374	2.28
44)		2,4,5-Trichlor...	0.385	0.407	0.430	0.410	0.394	0.409	0.401	0.405	3.51
45)	S	2-Fluorobiphenyl	1.373	1.360	1.385	1.269	1.241	1.259	1.201	1.298	5.62
46)		1,1'-Biphenyl	1.582	1.564	1.632	1.545	1.517	1.537	1.478	1.551	3.16
47)		2-Chloronaphth...	1.167	1.161	1.211	1.135	1.114	1.136	1.103	1.147	3.18
48)		2-Nitroaniline	0.371	0.371	0.394	0.390	0.382	0.401	0.385	0.385	2.92
49)		Acenaphthylene	1.739	1.736	1.791	1.696	1.660	1.689	1.626	1.705	3.21
50)		Dimethylphthalate	1.382	1.359	1.408	1.345	1.324	1.341	1.345	1.358	2.09
51)		2,6-Dinitrotol...	0.289	0.290	0.314	0.301	0.295	0.299	0.290	0.297	3.06
52)	C	Acenaphthene	1.186	1.164	1.188	1.152	1.108	1.127	1.101	1.147	3.10
53)		3-Nitroaniline	0.312	0.313	0.335	0.319	0.320	0.321	0.316	0.319	2.35
54)	P	2,4-Dinitrophenol		0.133	0.167	0.177	0.185	0.198	0.198	0.176	13.83
55)		Dibenzofuran	1.768	1.722	1.774	1.673	1.633	1.634	1.576	1.683	4.44
56)	P	4-Nitrophenol	0.190	0.216	0.247	0.249	0.249	0.257	0.251	0.237	10.43
57)		2,4-Dinitrotol...	0.383	0.403	0.414	0.398	0.390	0.396	0.383	0.395	2.83
58)		Fluorene	1.359	1.361	1.377	1.290	1.239	1.263	1.221	1.301	4.90
59)		2,3,4,6-Tetrac...	0.332	0.361	0.359	0.348	0.348	0.355	0.340	0.349	2.95
60)		Diethylphthalate	1.400	1.346	1.398	1.330	1.300	1.308	1.269	1.336	3.71
61)		4-Chlorophenyl...	0.661	0.643	0.659	0.622	0.602	0.611	0.585	0.626	4.66
62)		4-Nitroaniline	0.315	0.319	0.333	0.335	0.319	0.327	0.324	0.324	2.28
63)		Azobenzene	1.348	1.329	1.385	1.326	1.295	1.320	1.294	1.328	2.38
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.116	0.140	0.142	0.142	0.146	0.148	0.139	8.48
66)	c	n-Nitrosodiphe...	0.650	0.653	0.674	0.627	0.625	0.625	0.627	0.640	2.97
67)		4-Bromophenyl-...	0.228	0.220	0.234	0.221	0.220	0.221	0.221	0.224	2.46
68)		Hexachlorobenzene	0.229	0.234	0.241	0.227	0.224	0.228	0.228	0.230	2.46
69)		Atrazine	0.200	0.203	0.214	0.185	0.185	0.182	0.176	0.192	7.12
70)	C	Pentachlorophenol	0.116	0.131	0.151	0.154	0.158	0.159	0.160	0.147	11.68
71)		Phenanthrene	1.141	1.132	1.161	1.084	1.071	1.069	1.049	1.101	3.91
72)		Anthracene	1.168	1.126	1.158	1.082	1.084	1.071	1.057	1.107	3.99
73)		Carbazole	1.022	1.026	1.076	0.986	0.966	0.961	0.933	0.996	4.87
74)		Di-n-butylphth...	1.165	1.156	1.223	1.141	1.132	1.126	1.105	1.150	3.29
75)	C	Fluoranthene	1.251	1.239	1.243	1.151	1.129	1.091	1.065	1.167	6.63
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.474	0.487	0.334	0.528	0.432	0.351	0.481	0.441	16.58
78)		Pyrene	1.528	1.557	1.717	1.745	1.774	1.807	1.789	1.703	6.67
79)	S	Terphenyl-d14	1.129	1.104	1.211	1.198	1.209	1.234	1.208	1.185	4.07
80)		Butylbenzylpht...	0.525	0.540	0.605	0.609	0.603	0.623	0.624	0.590	6.83
81)		Benzo(a)anthra...	1.381	1.332	1.350	1.345	1.309	1.309	1.279	1.329	2.51
82)		3,3'-Dichlorob...	0.397	0.411	0.407	0.377	0.363	0.353	0.358	0.381	6.31
83)		Chrysene	1.187	1.223	1.314	1.201	1.215	1.224	1.229	1.228	3.34
84)		Bis(2-ethylhex...	0.593	0.610	0.685	0.689	0.680	0.697	0.702	0.665	6.68
85)	c	Di-n-octyl pht...	0.802	0.814	0.910	0.965	1.010	1.051	1.090	0.949	11.82

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	0.987	1.029	1.186	1.288	1.341	1.410	1.408	1.236	14.06
88)		Benzo(b)fluora...	1.286	1.407	1.398	1.336	1.350	1.356	1.268	1.343	3.88
89)		Benzo(k)fluora...	1.113	1.216	1.247	1.142	1.074	1.098	1.138	1.147	5.49
90)	C	Benzo(a)pyrene	1.085	1.074	1.115	1.080	1.069	1.094	1.089	1.087	1.41
91)		Dibenzo(a,h)an...	0.796	0.828	0.970	1.051	1.092	1.138	1.134	1.001	14.13
92)		Benzo(g,h,i)pe...	0.805	0.864	1.001	1.100	1.144	1.203	1.218	1.048	15.60

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 01/31/2025 17:19

Lab File ID: BF141336.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.218		-6.5	
Benzaldehyde	0.960	0.972		1.3	
Phenol-d6	1.657	1.534		-7.4	
Phenol	1.757	1.652		-6.0	20.0
bis(2-Chloroethyl)ether	1.347	1.267		-5.9	
2-Chlorophenol	1.396	1.307		-6.4	
2-Methylphenol	1.135	1.062		-6.4	
2,2-oxybis(1-Chloropropane)	2.342	2.199		-6.1	
Acetophenone	0.475	0.424		-10.7	
3+4-Methylphenols	1.393	1.318		-5.4	
n-Nitroso-di-n-propylamine	0.985	0.946	0.050	-4.0	
Nitrobenzene-d5	0.379	0.348		-8.2	
Hexachloroethane	0.571	0.536		-6.1	
Nitrobenzene	0.393	0.365		-7.1	
Isophorone	0.656	0.622		-5.2	
2-Nitrophenol	0.185	0.175		-5.4	20.0
2,4-Dimethylphenol	0.236	0.224		-5.1	
bis(2-Chloroethoxy)methane	0.418	0.386		-7.7	
2,4-Dichlorophenol	0.289	0.272		-5.9	20.0
Naphthalene	1.057	0.966		-8.6	
4-Chloroaniline	0.358	0.329		-8.1	
Hexachlorobutadiene	0.194	0.179		-7.7	20.0
Caprolactam	0.094	0.091		-3.2	
4-Chloro-3-methylphenol	0.310	0.341		10.0	20.0
2-Methylnaphthalene	0.672	0.618		-8.0	
Hexachlorocyclopentadiene	0.168	0.159	0.050	-5.4	
2,4,6-Trichlorophenol	0.372	0.365		-1.9	20.0
2-Fluorobiphenyl	1.299	1.148		-11.6	
2,4,5-Trichlorophenol	0.405	0.381		-5.9	
1,1-Biphenyl	1.560	1.427		-8.5	
2-Chloronaphthalene	1.216	1.102		-9.4	
2-Nitroaniline	0.382	0.366		-4.2	
Dimethylphthalate	1.351	1.290		-4.5	
Acenaphthylene	1.702	1.577		-7.3	
2,6-Dinitrotoluene	0.314	0.300		-4.5	
3-Nitroaniline	0.307	0.292		-4.9	
Acenaphthene	1.216	1.127		-7.3	20.0
2,4-Dinitrophenol	0.146	0.150	0.050	2.7	
4-Nitrophenol	0.225	0.300	0.050	33.3	

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 01/31/2025 17:19

Lab File ID: BF141336.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.481		-9.0	
2,4-Dinitrotoluene	0.406	0.427		5.2	
Diethylphthalate	1.310	1.249		-4.7	
4-Chlorophenyl-phenylether	0.617	0.562		-8.9	
Fluorene	1.262	1.151		-8.8	
4-Nitroaniline	0.302	0.288		-4.6	
4,6-Dinitro-2-methylphenol	0.118	0.131		11.0	
n-Nitrosodiphenylamine	0.647	0.627		-3.1	20.0
2,4,6-Tribromophenol	0.183	0.177		-3.3	
4-Bromophenyl-phenylether	0.224	0.220		-1.8	
Hexachlorobenzene	0.238	0.232		-2.5	
Atrazine	0.216	0.184		-14.8	
Pentachlorophenol	0.139	0.186		33.8	20.0
Phenanthrene	1.075	1.016		-5.5	
Anthracene	1.053	0.999		-5.1	
Carbazole	0.934	0.892		-4.5	
Di-n-butylphthalate	1.132	1.116		-1.4	
Fluoranthene	1.062	1.011		-4.8	20.0
Pyrene	1.920	1.949		1.5	
Terphenyl-d14	1.297	1.177		-9.3	
Butylbenzylphthalate	0.671	0.656		-2.2	
3,3-Dichlorobenzidine	0.439	0.397		-9.6	
Benzo(a)anthracene	1.380	1.181		-14.4	
Chrysene	1.265	1.179		-6.8	
Bis(2-ethylhexyl)phthalate	0.851	0.815		-4.2	
Di-n-octyl phthalate	1.321	1.285		-2.7	20.0
Benzo(b)fluoranthene	1.258	1.168		-7.2	
Benzo(k)fluoranthene	1.114	1.042		-6.5	
Benzo(a)pyrene	1.063	0.991		-6.8	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.238		-4.1	
Dibenzo(a,h)anthracene	1.039	0.999		-3.8	
Benzo(g,h,i)perylene	1.080	1.050		-2.8	
1,2,4,5-Tetrachlorobenzene	0.569	0.515		-9.5	
1,4-Dioxane	0.573	0.545		-4.9	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.310		-2.8	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/03/2025 17:14

Lab File ID: BF141373.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.302		-0.1	
Benzaldehyde	0.960	1.038		8.1	
Phenol-d6	1.657	1.598		-3.6	
Phenol	1.757	1.694		-3.6	20.0
bis(2-Chloroethyl)ether	1.347	1.310		-2.7	
2-Chlorophenol	1.396	1.391		-0.4	
2-Methylphenol	1.135	1.109		-2.3	
2,2-oxybis(1-Chloropropane)	2.342	2.192		-6.4	
Acetophenone	0.475	0.486		2.3	
3+4-Methylphenols	1.393	1.420		1.9	
n-Nitroso-di-n-propylamine	0.985	0.981	0.050	-0.4	
Nitrobenzene-d5	0.379	0.382		0.8	
Hexachloroethane	0.571	0.590		3.3	
Nitrobenzene	0.393	0.389		-1.0	
Isophorone	0.656	0.653		-0.5	
2-Nitrophenol	0.185	0.188		1.6	20.0
2,4-Dimethylphenol	0.236	0.237		0.4	
bis(2-Chloroethoxy)methane	0.418	0.408		-2.4	
2,4-Dichlorophenol	0.289	0.293		1.4	20.0
Naphthalene	1.057	1.046		-1.0	
4-Chloroaniline	0.358	0.293		-18.2	
Hexachlorobutadiene	0.194	0.204		5.2	20.0
Caprolactam	0.094	0.096		2.1	
4-Chloro-3-methylphenol	0.310	0.318		2.6	20.0
2-Methylnaphthalene	0.672	0.672		0.0	
Hexachlorocyclopentadiene	0.168	0.186	0.050	10.7	
2,4,6-Trichlorophenol	0.372	0.380		2.2	20.0
2-Fluorobiphenyl	1.299	1.292		-0.5	
2,4,5-Trichlorophenol	0.405	0.413		2.0	
1,1-Biphenyl	1.560	1.536		-1.5	
2-Chloronaphthalene	1.216	1.196		-1.6	
2-Nitroaniline	0.382	0.388		1.6	
Dimethylphthalate	1.351	1.357		0.4	
Acenaphthylene	1.702	1.683		-1.1	
2,6-Dinitrotoluene	0.314	0.315		0.3	
3-Nitroaniline	0.307	0.310		1.0	
Acenaphthene	1.216	1.226		0.8	20.0
2,4-Dinitrophenol	0.146	0.170	0.050	16.4	
4-Nitrophenol	0.225	0.235	0.050	4.4	

Form VII SV-1

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/03/2025 17:14

Lab File ID: BF141373.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.608		-1.2	
2,4-Dinitrotoluene	0.406	0.423		4.2	
Diethylphthalate	1.310	1.346		2.7	
4-Chlorophenyl-phenylether	0.617	0.621		0.6	
Fluorene	1.262	1.286		1.9	
4-Nitroaniline	0.302	0.327		8.3	
4,6-Dinitro-2-methylphenol	0.118	0.140		18.6	
n-Nitrosodiphenylamine	0.647	0.642		-0.8	20.0
2,4,6-Tribromophenol	0.183	0.194		6.0	
4-Bromophenyl-phenylether	0.224	0.234		4.5	
Hexachlorobenzene	0.238	0.244		2.5	
Atrazine	0.216	0.216		0.0	
Pentachlorophenol	0.139	0.157		12.9	20.0
Phenanthrene	1.075	1.095		1.9	
Anthracene	1.053	1.082		2.8	
Carbazole	0.934	0.977		4.6	
Di-n-butylphthalate	1.132	1.197		5.7	
Fluoranthene	1.062	1.123		5.7	20.0
Pyrene	1.920	1.838		-4.3	
Terphenyl-d14	1.297	1.274		-1.8	
Butylbenzylphthalate	0.671	0.703		4.8	
3,3-Dichlorobenzidine	0.439	0.424		-3.4	
Benzo(a)anthracene	1.380	1.292		-6.4	
Chrysene	1.265	1.240		-2.0	
Bis(2-ethylhexyl)phthalate	0.851	0.932		9.5	
Di-n-octyl phthalate	1.321	1.473		11.5	20.0
Benzo(b)fluoranthene	1.258	1.234		-1.9	
Benzo(k)fluoranthene	1.114	1.155		3.7	
Benzo(a)pyrene	1.063	1.088		2.4	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.353		4.8	
Dibenzo(a,h)anthracene	1.039	1.102		6.1	
Benzo(g,h,i)perylene	1.080	1.119		3.6	
1,2,4,5-Tetrachlorobenzene	0.569	0.571		0.4	
1,4-Dioxane	0.573	0.582		1.6	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.336		5.3	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/04/2025 15:58

Lab File ID: BF141410.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.284		-1.5	
Benzaldehyde	0.960	1.013		5.5	
Phenol-d6	1.657	1.572		-5.1	
Phenol	1.757	1.636		-6.9	20.0
bis(2-Chloroethyl)ether	1.347	1.259		-6.5	
2-Chlorophenol	1.396	1.368		-2.0	
2-Methylphenol	1.135	1.080		-4.8	
2,2-oxybis(1-Chloropropane)	2.342	2.088		-10.8	
Acetophenone	0.475	0.494		4.0	
3+4-Methylphenols	1.393	1.396		0.2	
n-Nitroso-di-n-propylamine	0.985	0.944	0.050	-4.2	
Nitrobenzene-d5	0.379	0.388		2.4	
Hexachloroethane	0.571	0.577		1.1	
Nitrobenzene	0.393	0.393		0.0	
Isophorone	0.656	0.640		-2.4	
2-Nitrophenol	0.185	0.192		3.8	20.0
2,4-Dimethylphenol	0.236	0.228		-3.4	
bis(2-Chloroethoxy)methane	0.418	0.398		-4.8	
2,4-Dichlorophenol	0.289	0.292		1.0	20.0
Naphthalene	1.057	1.049		-0.8	
4-Chloroaniline	0.358	0.319		-10.9	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
Caprolactam	0.094	0.093		-1.1	
4-Chloro-3-methylphenol	0.310	0.319		2.9	20.0
2-Methylnaphthalene	0.672	0.673		0.1	
Hexachlorocyclopentadiene	0.168	0.185	0.050	10.1	
2,4,6-Trichlorophenol	0.372	0.385		3.5	20.0
2-Fluorobiphenyl	1.299	1.327		2.2	
2,4,5-Trichlorophenol	0.405	0.420		3.7	
1,1-Biphenyl	1.560	1.554		-0.4	
2-Chloronaphthalene	1.216	1.203		-1.1	
2-Nitroaniline	0.382	0.396		3.7	
Dimethylphthalate	1.351	1.359		0.6	
Acenaphthylene	1.702	1.720		1.1	
2,6-Dinitrotoluene	0.314	0.322		2.5	
3-Nitroaniline	0.307	0.312		1.6	
Acenaphthene	1.216	1.251		2.9	20.0
2,4-Dinitrophenol	0.146	0.175	0.050	19.9	
4-Nitrophenol	0.225	0.248	0.050	10.2	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/04/2025 15:58

Lab File ID: BF141410.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.657		1.8	
2,4-Dinitrotoluene	0.406	0.439		8.1	
Diethylphthalate	1.310	1.369		4.5	
4-Chlorophenyl-phenylether	0.617	0.644		4.4	
Fluorene	1.262	1.315		4.2	
4-Nitroaniline	0.302	0.342		13.2	
4,6-Dinitro-2-methylphenol	0.118	0.142		20.3	
n-Nitrosodiphenylamine	0.647	0.643		-0.6	20.0
2,4,6-Tribromophenol	0.183	0.206		12.6	
4-Bromophenyl-phenylether	0.224	0.229		2.2	
Hexachlorobenzene	0.238	0.248		4.2	
Atrazine	0.216	0.211		-2.3	
Pentachlorophenol	0.139	0.158		13.7	20.0
Phenanthrene	1.075	1.113		3.5	
Anthracene	1.053	1.102		4.7	
Carbazole	0.934	1.020		9.2	
Di-n-butylphthalate	1.132	1.231		8.7	
Fluoranthene	1.062	1.232		16.0	20.0
Pyrene	1.920	1.732		-9.8	
Terphenyl-d14	1.297	1.228		-5.3	
Butylbenzylphthalate	0.671	0.671		0.0	
3,3-Dichlorobenzidine	0.439	0.410		-6.6	
Benzo(a)anthracene	1.380	1.278		-7.4	
Chrysene	1.265	1.238		-2.1	
Bis(2-ethylhexyl)phthalate	0.851	0.877		3.1	
Di-n-octyl phthalate	1.321	1.327		0.5	20.0
Benzo(b)fluoranthene	1.258	1.276		1.4	
Benzo(k)fluoranthene	1.114	1.215		9.1	
Benzo(a)pyrene	1.063	1.092		2.7	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.304		1.0	
Dibenzo(a,h)anthracene	1.039	1.055		1.5	
Benzo(g,h,i)perylene	1.080	1.076		-0.4	
1,2,4,5-Tetrachlorobenzene	0.569	0.587		3.2	
1,4-Dioxane	0.573	0.535		-6.6	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.336		5.3	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 10:02

Lab File ID: BF141435.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.295		-0.6	
Benzaldehyde	0.960	0.988		2.9	
Phenol-d6	1.657	1.600		-3.4	
Phenol	1.757	1.663		-5.3	20.0
bis(2-Chloroethyl)ether	1.347	1.263		-6.2	
2-Chlorophenol	1.396	1.383		-0.9	
2-Methylphenol	1.135	1.083		-4.6	
2,2-oxybis(1-Chloropropane)	2.342	2.038		-13.0	
Acetophenone	0.475	0.493		3.8	
3+4-Methylphenols	1.393	1.395		0.1	
n-Nitroso-di-n-propylamine	0.985	0.951	0.050	-3.5	
Nitrobenzene-d5	0.379	0.397		4.5	
Hexachloroethane	0.571	0.582		1.9	
Nitrobenzene	0.393	0.403		2.5	
Isophorone	0.656	0.632		-3.7	
2-Nitrophenol	0.185	0.191		3.2	20.0
2,4-Dimethylphenol	0.236	0.229		-3.0	
bis(2-Chloroethoxy)methane	0.418	0.393		-6.0	
2,4-Dichlorophenol	0.289	0.297		2.8	20.0
Naphthalene	1.057	1.058		0.1	
4-Chloroaniline	0.358	0.335		-6.4	
Hexachlorobutadiene	0.194	0.212		9.3	20.0
Caprolactam	0.094	0.092		-2.1	
4-Chloro-3-methylphenol	0.310	0.323		4.2	20.0
2-Methylnaphthalene	0.672	0.670		-0.3	
Hexachlorocyclopentadiene	0.168	0.166	0.050	-1.2	
2,4,6-Trichlorophenol	0.372	0.385		3.5	20.0
2-Fluorobiphenyl	1.299	1.338		3.0	
2,4,5-Trichlorophenol	0.405	0.418		3.2	
1,1-Biphenyl	1.560	1.536		-1.5	
2-Chloronaphthalene	1.216	1.222		0.5	
2-Nitroaniline	0.382	0.396		3.7	
Dimethylphthalate	1.351	1.345		-0.4	
Acenaphthylene	1.702	1.696		-0.4	
2,6-Dinitrotoluene	0.314	0.319		1.6	
3-Nitroaniline	0.307	0.309		0.7	
Acenaphthene	1.216	1.232		1.3	20.0
2,4-Dinitrophenol	0.146	0.160	0.050	9.6	
4-Nitrophenol	0.225	0.235	0.050	4.4	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 10:02

Lab File ID: BF141435.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.626		-0.1	
2,4-Dinitrotoluene	0.406	0.428		5.4	
Diethylphthalate	1.310	1.326		1.2	
4-Chlorophenyl-phenylether	0.617	0.644		4.4	
Fluorene	1.262	1.312		4.0	
4-Nitroaniline	0.302	0.314		4.0	
4,6-Dinitro-2-methylphenol	0.118	0.135		14.4	
n-Nitrosodiphenylamine	0.647	0.657		1.5	20.0
2,4,6-Tribromophenol	0.183	0.197		7.7	
4-Bromophenyl-phenylether	0.224	0.231		3.1	
Hexachlorobenzene	0.238	0.246		3.4	
Atrazine	0.216	0.200		-7.4	
Pentachlorophenol	0.139	0.151		8.6	20.0
Phenanthrene	1.075	1.115		3.7	
Anthracene	1.053	1.101		4.6	
Carbazole	0.934	1.005		7.6	
Di-n-butylphthalate	1.132	1.165		2.9	
Fluoranthene	1.062	1.154		8.7	20.0
Pyrene	1.920	1.874		-2.4	
Terphenyl-d14	1.297	1.290		-0.5	
Butylbenzylphthalate	0.671	0.667		-0.6	
3,3-Dichlorobenzidine	0.439	0.419		-4.6	
Benzo(a)anthracene	1.380	1.310		-5.1	
Chrysene	1.265	1.242		-1.8	
Bis(2-ethylhexyl)phthalate	0.851	0.821		-3.5	
Di-n-octyl phthalate	1.321	1.243		-5.9	20.0
Benzo(b)fluoranthene	1.258	1.327		5.5	
Benzo(k)fluoranthene	1.114	1.082		-2.9	
Benzo(a)pyrene	1.063	1.102		3.7	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.411		9.3	
Dibenzo(a,h)anthracene	1.039	1.133		9.0	
Benzo(g,h,i)perylene	1.080	1.191		10.3	
1,2,4,5-Tetrachlorobenzene	0.569	0.579		1.8	
1,4-Dioxane	0.573	0.500		-12.7	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.335		5.0	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/07/2025 14:33

Lab File ID: BF141506.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.276	1.294		1.4	
Benzaldehyde	0.857	0.844		-1.5	
Phenol-d6	1.612	1.599		-0.8	
Phenol	1.678	1.676		-0.1	20.0
bis(2-Chloroethyl)ether	1.261	1.237		-1.9	
2-Chlorophenol	1.378	1.383		0.4	
2-Methylphenol	1.079	1.064		-1.4	
2,2-oxybis(1-Chloropropane)	2.158	2.121		-1.7	
Acetophenone	0.498	0.489		-1.8	
3+4-Methylphenols	1.371	1.329		-3.1	
n-Nitroso-di-n-propylamine	0.964	0.978	0.050	1.5	
Nitrobenzene-d5	0.383	0.384		0.3	
Hexachloroethane	0.550	0.545		-0.9	
Nitrobenzene	0.374	0.372		-0.5	
Isophorone	0.611	0.607		-0.7	
2-Nitrophenol	0.186	0.191		2.7	20.0
2,4-Dimethylphenol	0.217	0.219		0.9	
bis(2-Chloroethoxy)methane	0.392	0.396		1.0	
2,4-Dichlorophenol	0.294	0.296		0.7	20.0
Naphthalene	1.041	1.040		-0.1	
4-Chloroaniline	0.363	0.327		-9.9	
Hexachlorobutadiene	0.192	0.191		-0.5	20.0
Caprolactam	0.089	0.093		4.5	
4-Chloro-3-methylphenol	0.325	0.326		0.3	20.0
2-Methylnaphthalene	0.677	0.668		-1.3	
Hexachlorocyclopentadiene	0.192	0.193	0.050	0.5	
2,4,6-Trichlorophenol	0.374	0.368		-1.6	20.0
2-Fluorobiphenyl	1.298	1.268		-2.3	
2,4,5-Trichlorophenol	0.405	0.399		-1.5	
1,1-Biphenyl	1.551	1.528		-1.5	
2-Chloronaphthalene	1.147	1.132		-1.3	
2-Nitroaniline	0.385	0.385		0.0	
Dimethylphthalate	1.358	1.338		-1.5	
Acenaphthylene	1.705	1.697		-0.5	
2,6-Dinitrotoluene	0.297	0.295		-0.7	
3-Nitroaniline	0.319	0.315		-1.3	
Acenaphthene	1.147	1.116		-2.7	20.0
2,4-Dinitrophenol	0.176	0.169	0.050	-4.0	
4-Nitrophenol	0.237	0.240	0.050	1.3	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/07/2025 14:33

Lab File ID: BF141506.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.683	1.655		-1.7	
2,4-Dinitrotoluene	0.395	0.400		1.3	
Diethylphthalate	1.336	1.313		-1.7	
4-Chlorophenyl-phenylether	0.626	0.616		-1.6	
Fluorene	1.301	1.278		-1.8	
4-Nitroaniline	0.324	0.326		0.6	
4,6-Dinitro-2-methylphenol	0.139	0.139		0.0	
n-Nitrosodiphenylamine	0.640	0.631		-1.4	20.0
2,4,6-Tribromophenol	0.201	0.200		-0.5	
4-Bromophenyl-phenylether	0.224	0.217		-3.1	
Hexachlorobenzene	0.230	0.229		-0.4	
Atrazine	0.192	0.182		-5.2	
Pentachlorophenol	0.147	0.147		0.0	20.0
Phenanthrene	1.101	1.082		-1.7	
Anthracene	1.107	1.095		-1.1	
Carbazole	0.996	1.004		0.8	
Di-n-butylphthalate	1.150	1.152		0.2	
Fluoranthene	1.167	1.168		0.1	20.0
Pyrene	1.703	1.702		-0.1	
Terphenyl-d14	1.185	1.171		-1.2	
Butylbenzylphthalate	0.590	0.640		8.5	
3,3-Dichlorobenzidine	0.381	0.385		1.0	
Benzo(a)anthracene	1.329	1.316		-1.0	
Chrysene	1.228	1.167		-5.0	
Bis(2-ethylhexyl)phthalate	0.665	0.759		14.1	
Di-n-octyl phthalate	0.949	1.017		7.2	20.0
Benzo(b)fluoranthene	1.343	1.426		6.2	
Benzo(k)fluoranthene	1.147	1.070		-6.7	
Benzo(a)pyrene	1.087	1.090		0.3	20.0
Indeno(1,2,3-cd)pyrene	1.236	1.245		0.7	
Dibenzo(a,h)anthracene	1.001	1.011		1.0	
Benzo(g,h,i)perylene	1.048	1.028		-1.9	
1,2,4,5-Tetrachlorobenzene	0.579	0.571		-1.4	
1,4-Dioxane	0.513	0.512		-0.2	20.0
2,3,4,6-Tetrachlorophenol	0.349	0.346		-0.9	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/10/2025 11:34

Lab File ID: BF141531.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.276	1.279		0.2	
Benzaldehyde	0.857	0.700		-18.3	
Phenol-d6	1.612	1.566		-2.9	
Phenol	1.678	1.634		-2.6	20.0
bis(2-Chloroethyl)ether	1.261	1.230		-2.5	
2-Chlorophenol	1.378	1.349		-2.1	
2-Methylphenol	1.079	1.053		-2.4	
2,2-oxybis(1-Chloropropane)	2.158	2.142		-0.7	
Acetophenone	0.498	0.483		-3.0	
3+4-Methylphenols	1.371	1.322		-3.6	
n-Nitroso-di-n-propylamine	0.964	0.933	0.050	-3.2	
Nitrobenzene-d5	0.383	0.378		-1.3	
Hexachloroethane	0.550	0.559		1.6	
Nitrobenzene	0.374	0.366		-2.1	
Isophorone	0.611	0.596		-2.5	
2-Nitrophenol	0.186	0.187		0.5	20.0
2,4-Dimethylphenol	0.217	0.215		-0.9	
bis(2-Chloroethoxy)methane	0.392	0.387		-1.3	
2,4-Dichlorophenol	0.294	0.288		-2.0	20.0
Naphthalene	1.041	1.032		-0.9	
4-Chloroaniline	0.363	0.347		-4.4	
Hexachlorobutadiene	0.192	0.197		2.6	20.0
Caprolactam	0.089	0.087		-2.2	
4-Chloro-3-methylphenol	0.325	0.317		-2.5	20.0
2-Methylnaphthalene	0.677	0.665		-1.8	
Hexachlorocyclopentadiene	0.192	0.179	0.050	-6.8	
2,4,6-Trichlorophenol	0.374	0.374		0.0	20.0
2-Fluorobiphenyl	1.298	1.277		-1.6	
2,4,5-Trichlorophenol	0.405	0.398		-1.7	
1,1-Biphenyl	1.551	1.532		-1.2	
2-Chloronaphthalene	1.147	1.143		-0.3	
2-Nitroaniline	0.385	0.373		-3.1	
Dimethylphthalate	1.358	1.328		-2.2	
Acenaphthylene	1.705	1.674		-1.8	
2,6-Dinitrotoluene	0.297	0.284		-4.4	
3-Nitroaniline	0.319	0.306		-4.1	
Acenaphthene	1.147	1.121		-2.3	20.0
2,4-Dinitrophenol	0.176	0.162	0.050	-8.0	
4-Nitrophenol	0.237	0.223	0.050	-5.9	

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/10/2025 11:34

Lab File ID: BF141531.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.683	1.647		-2.1	
2,4-Dinitrotoluene	0.395	0.379		-4.1	
Diethylphthalate	1.336	1.307		-2.2	
4-Chlorophenyl-phenylether	0.626	0.625		-0.2	
Fluorene	1.301	1.275		-2.0	
4-Nitroaniline	0.324	0.303		-6.5	
4,6-Dinitro-2-methylphenol	0.139	0.133		-4.3	
n-Nitrosodiphenylamine	0.640	0.652		1.9	20.0
2,4,6-Tribromophenol	0.201	0.194		-3.5	
4-Bromophenyl-phenylether	0.224	0.230		2.7	
Hexachlorobenzene	0.230	0.235		2.2	
Atrazine	0.192	0.182		-5.2	
Pentachlorophenol	0.147	0.138		-6.1	20.0
Phenanthrene	1.101	1.104		0.3	
Anthracene	1.107	1.109		0.2	
Carbazole	0.996	0.971		-2.5	
Di-n-butylphthalate	1.150	1.153		0.3	
Fluoranthene	1.167	1.119		-4.1	20.0
Pyrene	1.703	1.809		6.2	
Terphenyl-d14	1.185	1.253		5.7	
Butylbenzylphthalate	0.590	0.627		6.3	
3,3-Dichlorobenzidine	0.381	0.373		-2.1	
Benzo(a)anthracene	1.329	1.304		-1.9	
Chrysene	1.228	1.236		0.7	
Bis(2-ethylhexyl)phthalate	0.665	0.755		13.5	
Di-n-octyl phthalate	0.949	1.170		23.3	20.0
Benzo(b)fluoranthene	1.343	1.384		3.1	
Benzo(k)fluoranthene	1.147	1.012		-11.8	
Benzo(a)pyrene	1.087	1.083		-0.4	20.0
Indeno(1,2,3-cd)pyrene	1.236	1.422		15.0	
Dibenzo(a,h)anthracene	1.001	1.172		17.1	
Benzo(g,h,i)perylene	1.048	1.227		17.1	
1,2,4,5-Tetrachlorobenzene	0.579	0.580		0.2	
1,4-Dioxane	0.513	0.497		-3.1	20.0
2,3,4,6-Tetrachlorophenol	0.349	0.335		-4.0	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
				0.000				
			Total Svoc :		**0.00**			
			Total Concentration:		**0.00**			

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PB166356TB	SDG No.:	Q1232
Lab Sample ID:	PB166356TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141406.D	1	01/31/25 10:29	02/04/25 14:13	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	126		10 - 139	84%	SPK: 150
13127-88-3	Phenol-d6	123		10 - 134	82%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.5		49 - 133	86%	SPK: 100
321-60-8	2-Fluorobiphenyl	86.2		52 - 132	86%	SPK: 100
118-79-6	2,4,6-Tribromophenol	136		44 - 137	90%	SPK: 150
1718-51-0	Terphenyl-d14	80.1		48 - 125	80%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	94500	6.787			
1146-65-2	Naphthalene-d8	389000	8.069			
15067-26-2	Acenaphthene-d10	210000	9.828			
1517-22-2	Phenanthrene-d10	364000	11.316			
1719-03-5	Chrysene-d12	282000	13.957			
1520-96-3	Perylene-d12	223000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PB166356TB	SDG No.:	Q1232
Lab Sample ID:	PB166356TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141406.D	1	01/31/25 10:29	02/04/25 14:13	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-04	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141380.D	1	01/31/25 10:29	02/03/25 20:24	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	135		10 - 139	90%	SPK: 150
13127-88-3	Phenol-d6	131		10 - 134	87%	SPK: 150
4165-60-0	Nitrobenzene-d5	107		49 - 133	107%	SPK: 100
321-60-8	2-Fluorobiphenyl	102		52 - 132	102%	SPK: 100
118-79-6	2,4,6-Tribromophenol	166		44 - 137	111%	SPK: 150
1718-51-0	Terphenyl-d14	99.5		48 - 125	100%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	93200	6.792			
1146-65-2	Naphthalene-d8	363000	8.075			
15067-26-2	Acenaphthene-d10	195000	9.828			
1517-22-2	Phenanthrene-d10	334000	11.316			
1719-03-5	Chrysene-d12	224000	13.957			
1520-96-3	Perylene-d12	156000	15.41			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-04	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141380.D	1	01/31/25 10:29	02/03/25 20:24	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-08	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141381.D	1	01/31/25 10:29	02/03/25 20:51	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	136		10 - 139	91%	SPK: 150
13127-88-3	Phenol-d6	129		10 - 134	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	106		49 - 133	106%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.8		52 - 132	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	164		44 - 137	109%	SPK: 150
1718-51-0	Terphenyl-d14	98.5		48 - 125	99%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	86900	6.793			
1146-65-2	Naphthalene-d8	345000	8.075			
15067-26-2	Acenaphthene-d10	192000	9.828			
1517-22-2	Phenanthrene-d10	317000	11.316			
1719-03-5	Chrysene-d12	222000	13.957			
1520-96-3	Perylene-d12	160000	15.415			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-08	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141381.D	1	01/31/25 10:29	02/03/25 20:51	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-12	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141382.D	1	01/31/25 10:29	02/03/25 21:17	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	135		10 - 139	90%	SPK: 150
13127-88-3	Phenol-d6	128		10 - 134	85%	SPK: 150
4165-60-0	Nitrobenzene-d5	105		49 - 133	105%	SPK: 100
321-60-8	2-Fluorobiphenyl	103		52 - 132	103%	SPK: 100
118-79-6	2,4,6-Tribromophenol	163		44 - 137	108%	SPK: 150
1718-51-0	Terphenyl-d14	94.6		48 - 125	95%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	89100	6.792			
1146-65-2	Naphthalene-d8	352000	8.075			
15067-26-2	Acenaphthene-d10	188000	9.827			
1517-22-2	Phenanthrene-d10	319000	11.316			
1719-03-5	Chrysene-d12	227000	13.957			
1520-96-3	Perylene-d12	161000	15.409			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-12	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141382.D	1	01/31/25 10:29	02/03/25 21:17	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-16	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141383.D	1	01/31/25 10:29	02/03/25 21:44	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	137		10 - 139	91%	SPK: 150
13127-88-3	Phenol-d6	131		10 - 134	87%	SPK: 150
4165-60-0	Nitrobenzene-d5	104		49 - 133	104%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.3		52 - 132	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	163		44 - 137	109%	SPK: 150
1718-51-0	Terphenyl-d14	96.7		48 - 125	97%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	84200	6.793			
1146-65-2	Naphthalene-d8	337000	8.075			
15067-26-2	Acenaphthene-d10	188000	9.828			
1517-22-2	Phenanthrene-d10	310000	11.316			
1719-03-5	Chrysene-d12	218000	13.957			
1520-96-3	Perylene-d12	158000	15.404			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-16	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141383.D	1	01/31/25 10:29	02/03/25 21:44	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-20	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141384.D	1	01/31/25 10:29	02/03/25 22:11	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	137		10 - 139	91%	SPK: 150
13127-88-3	Phenol-d6	130		10 - 134	87%	SPK: 150
4165-60-0	Nitrobenzene-d5	106		49 - 133	106%	SPK: 100
321-60-8	2-Fluorobiphenyl	101		52 - 132	101%	SPK: 100
118-79-6	2,4,6-Tribromophenol	165		44 - 137	110%	SPK: 150
1718-51-0	Terphenyl-d14	105		48 - 125	105%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	88600	6.793			
1146-65-2	Naphthalene-d8	355000	8.075			
15067-26-2	Acenaphthene-d10	194000	9.828			
1517-22-2	Phenanthrene-d10	331000	11.316			
1719-03-5	Chrysene-d12	211000	13.957			
1520-96-3	Perylene-d12	155000	15.404			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-20	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141384.D	1	01/31/25 10:29	02/03/25 22:11	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166356TB	PB166356TB	2-Fluorophenol	150	126	84		10	139
		Phenol-d6	150	123	82		10	134
		Nitrobenzene-d5	100	86.5	86		49	133
		2-Fluorobiphenyl	100	86.2	86		52	132
		2,4,6-Tribromophenol	150	136	90		44	137
		Terphenyl-d14	100	80.1	80		48	125
PB166426BL	PB166426BL	2-Fluorophenol	150	159	106		10	139
		Phenol-d6	150	143	95		10	134
		Nitrobenzene-d5	100	103	103		49	133
		2-Fluorobiphenyl	100	100	100		52	132
		2,4,6-Tribromophenol	150	159	106		44	137
		Terphenyl-d14	100	84.0	84		48	125
PB166426BS	PB166426BS	2-Fluorophenol	150	132	88		10	139
		Phenol-d6	150	127	85		10	134
		Nitrobenzene-d5	100	92.2	92		49	133
		2-Fluorobiphenyl	100	93.5	94		52	132
		2,4,6-Tribromophenol	150	154	102		44	137
		Terphenyl-d14	100	89.9	90		48	125
Q1218-02MS	BELL-25-002MS	2-Fluorophenol	150	117	78		10	139
		Phenol-d6	150	108	72		10	134
		Nitrobenzene-d5	100	92.8	93		49	133
		2-Fluorobiphenyl	100	92.6	93		52	132
		2,4,6-Tribromophenol	150	120	80		44	137
		Terphenyl-d14	100	63.3	63		48	125
Q1218-02MSD	BELL-25-002MSD	2-Fluorophenol	150	124	83		10	139
		Phenol-d6	150	118	78		10	134
		Nitrobenzene-d5	100	89.4	89		49	133
		2-Fluorobiphenyl	100	85.7	86		52	132
		2,4,6-Tribromophenol	150	120	80		44	137
		Terphenyl-d14	100	68.2	68		48	125
Q1232-04	JPP-46.2-012925	2-Fluorophenol	150	135	90		10	139
		Phenol-d6	150	131	87		10	134
		Nitrobenzene-d5	100	107	107		49	133
		2-Fluorobiphenyl	100	102	102		52	132
		2,4,6-Tribromophenol	150	166	111		44	137
		Terphenyl-d14	100	99.5	100		48	125
Q1232-08	JPP-46.1-012925	2-Fluorophenol	150	136	91		10	139
		Phenol-d6	150	129	86		10	134
		Nitrobenzene-d5	100	106	106		49	133
		2-Fluorobiphenyl	100	99.8	100		52	132
		2,4,6-Tribromophenol	150	164	109		44	137
		Terphenyl-d14	100	98.5	99		48	125
Q1232-12	JPP-42.1-012925	2-Fluorophenol	150	135	90		10	139
		Phenol-d6	150	128	85		10	134
		Nitrobenzene-d5	100	105	105		49	133
		2-Fluorobiphenyl	100	103	103		52	132
		2,4,6-Tribromophenol	150	163	108		44	137
		Terphenyl-d14	100	94.6	95		48	125
Q1232-16	JPP-42.2-012925	2-Fluorophenol	150	137	91		10	139
		Phenol-d6	150	131	87		10	134
		Nitrobenzene-d5	100	104	104		49	133

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Surrogate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q1232-16	JPP-42.2-012925	2-Fluorobiphenyl	100	99.3	99		52	132
		2,4,6-Tribromophenol	150	163	109		44	137
		Terphenyl-d14	100	96.7	97		48	125
Q1232-20	JPP-51.1-012925	2-Fluorophenol	150	137	91		10	139
		Phenol-d6	150	130	87		10	134
		Nitrobenzene-d5	100	106	106		49	133
		2-Fluorobiphenyl	100	101	101		52	132
		2,4,6-Tribromophenol	150	165	110		44	137
		Terphenyl-d14	100	105	105		48	125

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1218-02MS		**Client Sample ID: BELL-25-002MS**						**DataFile: BF141339.D**			
Pyridine	500	0	210	ug/L	42				10	109	
1,4-Dichlorobenzene	500	0	360	ug/L	72				55	125	
2-Methylphenol	500	0	360	ug/L	72				37	126	
3+4-Methylphenols	500	0	350	ug/L	70				31	127	
Hexachloroethane	500	0	380	ug/L	76				49	110	
Nitrobenzene	500	0	480	ug/L	96				62	112	
Hexachlorobutadiene	500	0	340	ug/L	68				52	125	
2,4,6-Trichlorophenol	500	0	460	ug/L	92				78	112	
2,4,5-Trichlorophenol	500	0	420	ug/L	84				71	111	
2,4-Dinitrotoluene	500	0	380	ug/L	76				50	142	
Hexachlorobenzene	500	0	440	ug/L	88				72	115	
Pentachlorophenol	1000	0	980	ug/L	98				25	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1218-02MSD		**Client Sample ID: BELL-25-002MSD**						**DataFile: BF141340.D**			
Pyridine	500	0	220	ug/L	44		5		10	109	20
1,4-Dichlorobenzene	500	0	360	ug/L	72		0		55	125	20
2-Methylphenol	500	0	400	ug/L	80		11		37	126	20
3+4-Methylphenols	500	0	400	ug/L	80		13		31	127	20
Hexachloroethane	500	0	380	ug/L	76		0		49	110	20
Nitrobenzene	500	0	460	ug/L	92		4		62	112	20
Hexachlorobutadiene	500	0	320	ug/L	64		6		52	125	20
2,4,6-Trichlorophenol	500	0	450	ug/L	90		2		78	112	20
2,4,5-Trichlorophenol	500	0	440	ug/L	88		5		71	111	20
2,4-Dinitrotoluene	500	0	380	ug/L	76		0		50	142	20
Hexachlorobenzene	500	0	450	ug/L	90		2		72	115	20
Pentachlorophenol	1000	0	940	ug/L	94		4		25	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141407.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166426BS	Pyridine	50	39.6	ug/L	79				29	97	
	1,4-Dichlorobenzene	50	45.5	ug/L	91				76	103	
	2-Methylphenol	50	45.9	ug/L	92				69	109	
	3+4-Methylphenols	50	48.4	ug/L	97				67	106	
	Hexachloroethane	50	47.5	ug/L	95				76	118	
	Nitrobenzene	50	44.9	ug/L	90				58	106	
	Hexachlorobutadiene	50	48.0	ug/L	96				69	101	
	2,4,6-Trichlorophenol	50	48.8	ug/L	98				61	110	
	2,4,5-Trichlorophenol	50	47.3	ug/L	95				70	106	
	2,4-Dinitrotoluene	50	50.0	ug/L	100				60	115	
	Hexachlorobenzene	50	48.9	ug/L	98				73	106	
	Pentachlorophenol	100	100	ug/L	100				47	114	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166426BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141362.D Lab Sample ID: PB166426BL

Instrument ID: BNA_F Date Extracted: 01/31/2025

Matrix: (soil/water) water Date Analyzed: 02/03/2025

Level: (low/med) LOW Time Analyzed: 11:51

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
JPP-46.2-012925	Q1232-04	BF141380.D	02/03/2025
JPP-46.1-012925	Q1232-08	BF141381.D	02/03/2025
JPP-42.1-012925	Q1232-12	BF141382.D	02/03/2025
JPP-42.2-012925	Q1232-16	BF141383.D	02/03/2025
JPP-51.1-012925	Q1232-20	BF141384.D	02/03/2025
PB166356TB	PB166356TB	BF141406.D	02/04/2025
PB166426BS	PB166426BS	BF141407.D	02/04/2025
BELL-25-002MS	Q1218-02MS	BF141339.D	01/31/2025
BELL-25-002MSD	Q1218-02MSD	BF141340.D	01/31/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141289.D DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141290.D	01/29/2025	10:30
SSTDICC005	SSTDICC005	BF141291.D	01/29/2025	10:56
SSTDICC010	SSTDICC010	BF141292.D	01/29/2025	11:49
SSTDICC020	SSTDICC020	BF141293.D	01/29/2025	15:17
SSTDICCC040	SSTDICCC040	BF141294.D	01/29/2025	15:45
SSTDICC050	SSTDICC050	BF141295.D	01/29/2025	16:11
SSTDICC060	SSTDICC060	BF141296.D	01/29/2025	16:38
SSTDICC080	SSTDICC080	BF141297.D	01/29/2025	17:05

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141335.D DFTPP Injection Date: 01/31/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	46.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	49
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	11.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.6 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141336.D	01/31/2025	17:19
BELL-25-002MS	Q1218-02MS	BF141339.D	01/31/2025	18:44
BELL-25-002MSD	Q1218-02MSD	BF141340.D	01/31/2025	19:11

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141360.D DFTPP Injection Date: 02/03/2025

Instrument ID: BNA_F DFTPP Injection Time: 09:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.2
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.5
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	47.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	25.7
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	12.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (18.6) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141361.D	02/03/2025	11:24
PB166426BL	PB166426BL	BF141362.D	02/03/2025	11:51

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141372.D DFTPP Injection Date: 02/03/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.1
68	Less than 2.0% of mass 69	0.8 (2) 1
69	Mass 69 relative abundance	37.8
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	50.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	26.7
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	12.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.7 (19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141373.D	02/03/2025	17:14
JPP-46.2-012925	Q1232-04	BF141380.D	02/03/2025	20:24
JPP-46.1-012925	Q1232-08	BF141381.D	02/03/2025	20:51
JPP-42.1-012925	Q1232-12	BF141382.D	02/03/2025	21:17
JPP-42.2-012925	Q1232-16	BF141383.D	02/03/2025	21:44
JPP-51.1-012925	Q1232-20	BF141384.D	02/03/2025	22:11

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: BF141397.D DFTPP Injection Date: 02/04/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:16

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.3
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	49.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	12.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141398.D	02/04/2025	10:42
PB166356TB	PB166356TB	BF141406.D	02/04/2025	14:13
PB166426BS	PB166426BS	BF141407.D	02/04/2025	14:39

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	140033	6.798	558386	8.08	299701	9.84
	UPPER LIMIT	280066	7.298	1116770	8.581	599402	10.339
	LOWER LIMIT	70016.5	6.298	279193	7.581	149851	9.339
	EPA SAMPLE NO.						
01	BELL-25-002MS	131554	6.80	434471	8.08	208861	9.84
02	BELL-25-002MSD	142670	6.80	521314	8.09	271292	9.85

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	493954	11.322	281629	13.968	286623	15.433
	UPPER LIMIT	987908	11.822	563258	14.468	573246	15.933
	LOWER LIMIT	246977	10.822	140815	13.468	143312	14.933
	EPA SAMPLE NO.						
01	BELL-25-002MS	316494	11.32	287072	13.97	323532	15.43
02	BELL-25-002MSD	395783	11.33	279691	13.97	312761	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141361.D Time Analyzed: 11:24

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	93803	6.798	362783	8.08	198566	9.83
	UPPER LIMIT	187606	7.298	725566	8.581	397132	10.333
	LOWER LIMIT	46901.5	6.298	181392	7.581	99283	9.333
	EPA SAMPLE NO.						
01	PB166426BL	87343	6.79	347606	8.08	191809	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141361.D Time Analyzed: 11:24

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	334466	11.322	243574	13.968	284769	15.427
	UPPER LIMIT	668932	11.822	487148	14.468	569538	15.927
	LOWER LIMIT	167233	10.822	121787	13.468	142385	14.927
	EPA SAMPLE NO.						
01	PB166426BL	337058	11.32	285942	13.96	281061	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141373.D Time Analyzed: 17:14

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	104167	6.798	414412	8.08	226326	9.83
	UPPER LIMIT	208334	7.298	828824	8.581	452652	10.333
	LOWER LIMIT	52083.5	6.298	207206	7.581	113163	9.333
	EPA SAMPLE NO.						
01	JPP-46.2-012925	93170	6.79	362646	8.08	194869	9.83
02	JPP-46.1-012925	86900	6.79	344884	8.08	192037	9.83
03	JPP-42.1-012925	89109	6.79	351714	8.08	188139	9.83
04	JPP-42.2-012925	84155	6.79	336578	8.08	187844	9.83
05	JPP-51.1-012925	88557	6.79	354547	8.08	194446	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

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* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141373.D Time Analyzed: 17:14

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	383558	11.322	233911	13.963	231577	15.415
	UPPER LIMIT	767116	11.822	467822	14.463	463154	15.915
	LOWER LIMIT	191779	10.822	116956	13.463	115789	14.915
	EPA SAMPLE NO.						
01	JPP-46.2-012925	333909	11.32	223983	13.96	156310	15.41
02	JPP-46.1-012925	317485	11.32	222096	13.96	159639	15.42
03	JPP-42.1-012925	319169	11.32	226990	13.96	160771	15.41
04	JPP-42.2-012925	310260	11.32	217689	13.96	158450	15.40
05	JPP-51.1-012925	330562	11.32	210585	13.96	155102	15.40

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141398.D Time Analyzed: 10:42

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	87552	6.793	331835	8.08	180473	9.83
	UPPER LIMIT	175104	7.293	663670	8.575	360946	10.328
	LOWER LIMIT	43776	6.293	165918	7.575	90236.5	9.328
	EPA SAMPLE NO.						
01	PB166356TB	94457	6.79	389015	8.07	210477	9.83
02	PB166426BS	82681	6.79	331184	8.08	180993	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141398.D Time Analyzed: 10:42

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	318826	11.316	235294	13.963	201713	15.421
	UPPER LIMIT	637652	11.816	470588	14.463	403426	15.921
	LOWER LIMIT	159413	10.816	117647	13.463	100857	14.921
	EPA SAMPLE NO.						
01	PB166356TB	363737	11.32	282057	13.96	223254	15.42
02	PB166426BS	312610	11.32	234119	13.96	200536	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166426BL	SDG No.:	Q1232
Lab Sample ID:	PB166426BL	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141362.D	1	01/31/25 10:29	02/03/25 11:51	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	5.00	U	1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	U	0.84	5.00	ug/L
95-48-7	2-Methylphenol	5.00	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	10.0	U	1.20	10.0	ug/L
67-72-1	Hexachloroethane	5.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	5.00	U	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	5.00	U	1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	5.00	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	5.00	U	1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	5.00	U	1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	5.00	U	1.10	5.00	ug/L
87-86-5	Pentachlorophenol	10.0	U	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	159		10 - 139	106%	SPK: 150
13127-88-3	Phenol-d6	143		10 - 134	95%	SPK: 150
4165-60-0	Nitrobenzene-d5	103		49 - 133	103%	SPK: 100
321-60-8	2-Fluorobiphenyl	100		52 - 132	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	159		44 - 137	106%	SPK: 150
1718-51-0	Terphenyl-d14	84.0		48 - 125	84%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	87300	6.793			
1146-65-2	Naphthalene-d8	348000	8.075			
15067-26-2	Acenaphthene-d10	192000	9.828			
1517-22-2	Phenanthrene-d10	337000	11.316			
1719-03-5	Chrysene-d12	286000	13.957			
1520-96-3	Perylene-d12	281000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166426BL	SDG No.:	Q1232
Lab Sample ID:	PB166426BL	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141362.D	1	01/31/25 10:29	02/03/25 11:51	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166426BS	SDG No.:	Q1232
Lab Sample ID:	PB166426BS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141407.D	1	01/31/25 10:29	02/04/25 14:39	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	39.6		1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	45.5		0.84	5.00	ug/L
95-48-7	2-Methylphenol	45.9		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	48.4		1.20	10.0	ug/L
67-72-1	Hexachloroethane	47.5		1.00	5.00	ug/L
98-95-3	Nitrobenzene	44.9		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	48.0		1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	48.8		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	47.3		1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	50.0		1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	48.9		1.10	5.00	ug/L
87-86-5	Pentachlorophenol	100	E	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	132		10 - 139	88%	SPK: 150
13127-88-3	Phenol-d6	127		10 - 134	85%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.2		49 - 133	92%	SPK: 100
321-60-8	2-Fluorobiphenyl	93.5		52 - 132	94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	154		44 - 137	102%	SPK: 150
1718-51-0	Terphenyl-d14	89.9		48 - 125	90%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82700	6.787			
1146-65-2	Naphthalene-d8	331000	8.075			
15067-26-2	Acenaphthene-d10	181000	9.827			
1517-22-2	Phenanthrene-d10	313000	11.316			
1719-03-5	Chrysene-d12	234000	13.963			
1520-96-3	Perylene-d12	201000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166426BS	SDG No.:	Q1232
Lab Sample ID:	PB166426BS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141407.D	1	01/31/25 10:29	02/04/25 14:39	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	BELL-25-002MS	SDG No.:	Q1232
Lab Sample ID:	Q1218-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141339.D	1	01/31/25 10:29	01/31/25 18:44	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	210		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	360		8.40	50.0	ug/L
95-48-7	2-Methylphenol	360		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	350		11.5	100	ug/L
67-72-1	Hexachloroethane	380		10.1	50.0	ug/L
98-95-3	Nitrobenzene	480		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	340		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	460		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	420		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	380		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	440		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	980	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	117		10 - 139	78%	SPK: 150
13127-88-3	Phenol-d6	108		10 - 134	72%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.8		49 - 133	93%	SPK: 100
321-60-8	2-Fluorobiphenyl	92.6		52 - 132	93%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		44 - 137	80%	SPK: 150
1718-51-0	Terphenyl-d14	63.3		48 - 125	63%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	132000	6.804			
1146-65-2	Naphthalene-d8	434000	8.081			
15067-26-2	Acenaphthene-d10	209000	9.839			
1517-22-2	Phenanthrene-d10	316000	11.322			
1719-03-5	Chrysene-d12	287000	13.968			
1520-96-3	Perylene-d12	324000	15.427			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	BELL-25-002MS	SDG No.:	Q1232
Lab Sample ID:	Q1218-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141339.D	1	01/31/25 10:29	01/31/25 18:44	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
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N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	BELL-25-002MSD	SDG No.:	Q1232
Lab Sample ID:	Q1218-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141340.D	1	01/31/25 10:29	01/31/25 19:11	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	220		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	360		8.40	50.0	ug/L
95-48-7	2-Methylphenol	400		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	400		11.5	100	ug/L
67-72-1	Hexachloroethane	380		10.1	50.0	ug/L
98-95-3	Nitrobenzene	460		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	320		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	450		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	440		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	380		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	450		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	940	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	124		10 - 139	83%	SPK: 150
13127-88-3	Phenol-d6	118		10 - 134	78%	SPK: 150
4165-60-0	Nitrobenzene-d5	89.4		49 - 133	89%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.7		52 - 132	86%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		44 - 137	80%	SPK: 150
1718-51-0	Terphenyl-d14	68.2		48 - 125	68%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	143000	6.804			
1146-65-2	Naphthalene-d8	521000	8.086			
15067-26-2	Acenaphthene-d10	271000	9.845			
1517-22-2	Phenanthrene-d10	396000	11.327			
1719-03-5	Chrysene-d12	280000	13.968			
1520-96-3	Perylene-d12	313000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	BELL-25-002MSD	SDG No.:	Q1232
Lab Sample ID:	Q1218-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141340.D	1	01/31/25 10:29	01/31/25 19:11	PB166426

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jan 29 17:41:25 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141290.D 5 =BF141291.D 10 =BF141292.D 20 =BF141293.D 40 =BF141294.D 50 =BF141295.D 60 =BF141296.D 80 =BF1412
97.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.600	0.603	0.597	0.538	0.574	0.569	0.530	0.573	5.19
3)		Pyridine		1.364	1.410	1.450	1.320	1.394	1.404	1.322	1.380	3.46
4)		n-Nitrosodimet...		0.770	0.789	0.824	0.751	0.803	0.813	0.771	0.789	3.32
5)	S	2-Fluorophenol		1.428	1.391	1.402	1.201	1.267	1.268	1.163	1.303	8.03
6)		Aniline		1.480	1.511	1.542	1.359	1.404	1.350	1.174	1.403	8.93
7)	S	Phenol-d6		1.841	1.800	1.743	1.520	1.611	1.611	1.475	1.657	8.47
8)		2-Chlorophenol		1.535	1.510	1.487	1.297	1.353	1.355	1.237	1.396	8.24
9)		Benzaldehyde		1.166	1.130	1.104	0.895	0.861	0.837	0.727	0.960	17.81
10)	C	Phenol		1.938	1.879	1.884	1.643	1.696	1.704	1.554	1.757	8.22
11)		bis(2-Chloroet...		1.478	1.413	1.426	1.232	1.299	1.329	1.253	1.347	6.93
12)		1,3-Dichlorobe...		1.697	1.668	1.648	1.429	1.499	1.474	1.362	1.540	8.49
13)	C	1,4-Dichlorobe...		1.719	1.663	1.659	1.432	1.502	1.487	1.365	1.547	8.66
14)		1,2-Dichlorobe...		1.629	1.609	1.565	1.338	1.392	1.366	1.240	1.448	10.46
15)		Benzyl Alcohol		1.138	1.201	1.216	1.082	1.137	1.125	1.028	1.133	5.72
16)		2,2'-oxybis(1-...		2.533	2.484	2.495	2.189	2.296	2.287	2.112	2.342	7.01
17)		2-Methylphenol		1.237	1.175	1.210	1.042	1.107	1.120	1.053	1.135	6.62
18)		Hexachloroethane		0.609	0.612	0.610	0.530	0.560	0.561	0.513	0.571	7.09
19)	P	n-Nitroso-di-n...	1.084	1.052	1.060	1.032	0.895	0.936	0.945	0.874	0.985	8.27
20)		3+4-Methylphenols		1.561	1.564	1.502	1.287	1.331	1.323	1.186	1.393	10.65
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.547	0.523	0.517	0.436	0.449	0.443	0.412	0.475	11.06
23)	S	Nitrobenzene-d5		0.405	0.396	0.406	0.354	0.373	0.373	0.349	0.379	6.14
24)		Nitrobenzene		0.418	0.411	0.420	0.371	0.385	0.389	0.358	0.393	6.14
25)		Isophorone		0.698	0.685	0.694	0.611	0.640	0.648	0.615	0.656	5.62
26)	C	2-Nitrophenol		0.176	0.187	0.199	0.177	0.189	0.191	0.179	0.185	4.66
27)		2,4-Dimethylph...		0.244	0.239	0.249	0.224	0.235	0.238	0.223	0.236	4.12
28)		bis(2-Chloroet...		0.454	0.440	0.445	0.389	0.405	0.411	0.384	0.418	6.70
29)	C	2,4-Dichloroph...		0.307	0.300	0.312	0.271	0.284	0.286	0.262	0.289	6.39
30)		1,2,4-Trichlor...		0.372	0.354	0.354	0.304	0.318	0.316	0.292	0.330	9.11
31)		Naphthalene		1.193	1.145	1.140	0.976	1.020	1.002	0.919	1.057	9.72
32)		Benzoic acid		0.140	0.178	0.238	0.221	0.241	0.259	0.242	0.217	19.59
33)		4-Chloroaniline		0.382	0.378	0.391	0.338	0.351	0.349	0.318	0.358	7.38
34)	C	Hexachlorobuta...		0.209	0.207	0.209	0.179	0.190	0.187	0.174	0.194	7.52
35)		Caprolactam		0.097	0.095	0.102	0.089	0.094	0.096	0.089	0.094	4.89
36)	C	4-Chloro-3-met...		0.328	0.328	0.334	0.287	0.301	0.307	0.283	0.310	6.71
37)		2-Methylnaphth...		0.755	0.732	0.724	0.624	0.643	0.639	0.583	0.672	9.68
38)		1-Methylnaphth...		0.757	0.723	0.711	0.606	0.625	0.623	0.573	0.660	10.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.613	0.603	0.534	0.555	0.551	0.512	0.569	7.25
41)	P	Hexachlorocycl...	0.136	0.157	0.174	0.172	0.182	0.181	0.174	0.168	9.69
42)	S	2,4,6-Tribromo...	0.198	0.198	0.198	0.173	0.175	0.179	0.163	0.183	7.98
43)	C	2,4,6-Trichlor...	0.381	0.380	0.390	0.364	0.375	0.369	0.347	0.372	3.79
44)		2,4,5-Trichlor...	0.429	0.425	0.429	0.377	0.391	0.403	0.383	0.405	5.50
45)	S	2-Fluorobiphenyl	1.597	1.464	1.398	1.184	1.202	1.168	1.083	1.299	14.48
46)		1,1'-Biphenyl	1.810	1.692	1.650	1.454	1.492	1.460	1.360	1.560	10.27
47)		2-Chloronaphth...	1.396	1.310	1.290	1.122	1.159	1.156	1.077	1.216	9.59
48)		2-Nitroaniline	0.386	0.389	0.407	0.364	0.382	0.385	0.364	0.382	3.91
49)		Acenaphthylene	1.921	1.854	1.815	1.595	1.620	1.612	1.495	1.702	9.38
50)		Dimethylphthalate	1.498	1.456	1.445	1.239	1.299	1.296	1.223	1.351	8.34
51)		2,6-Dinitrotol...	0.333	0.331	0.333	0.296	0.304	0.309	0.290	0.314	5.90
52)	C	Acenaphthene	1.361	1.300	1.291	1.128	1.170	1.180	1.079	1.216	8.46
53)		3-Nitroaniline	0.321	0.330	0.341	0.303	0.293	0.298	0.264	0.307	8.44
54)	P	2,4-Dinitrophenol		0.102	0.136	0.147	0.156	0.169	0.164	0.146	16.81
55)		Dibenzofuran	1.869	1.788	1.755	1.518	1.525	1.539	1.398	1.627	10.72
56)	P	4-Nitrophenol	0.187	0.215	0.251	0.224	0.231	0.244	0.222	0.225	9.21
57)		2,4-Dinitrotol...	0.424	0.431	0.443	0.386	0.392	0.404	0.362	0.406	7.03
58)		Fluorene	1.512	1.410	1.353	1.167	1.164	1.172	1.059	1.262	12.96
59)		2,3,4,6-Tetrac...	0.325	0.343	0.341	0.304	0.305	0.324	0.291	0.319	6.11
60)		Diethylphthalate	1.470	1.417	1.412	1.225	1.238	1.260	1.146	1.310	9.32
61)		4-Chlorophenyl...	0.738	0.694	0.659	0.567	0.565	0.571	0.522	0.617	13.04
62)		4-Nitroaniline	0.297	0.312	0.330	0.290	0.294	0.311	0.281	0.302	5.45
63)		Azobenzene	1.464	1.411	1.390	1.224	1.249	1.276	1.162	1.311	8.51
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.105	0.122	0.125	0.131	0.134	0.131	0.118	16.29
66)	c	n-Nitrosodiphe...	0.716	0.684	0.674	0.626	0.622	0.614	0.593	0.647	6.89
67)		4-Bromophenyl-...	0.235	0.234	0.234	0.217	0.218	0.220	0.210	0.224	4.57
68)		Hexachlorobenzene	0.257	0.250	0.248	0.229	0.229	0.232	0.217	0.238	6.07
69)		Atrazine	0.211	0.202	0.213	0.213	0.215	0.235	0.224	0.216	4.86
70)	C	Pentachlorophenol	0.112	0.136	0.146	0.143	0.146	0.149	0.141	0.139	9.08
71)		Phenanthrene	1.233	1.170	1.142	1.025	1.008	1.010	0.937	1.075	9.96
72)		Anthracene	1.179	1.146	1.120	1.009	0.999	0.996	0.924	1.053	9.00
73)		Carbazole	1.019	1.014	1.021	0.899	0.878	0.900	0.807	0.934	9.04
74)		Di-n-butylphth...	1.244	1.239	1.245	1.086	1.051	1.081	0.978	1.132	9.65
75)	C	Fluoranthene	1.195	1.202	1.196	1.013	0.963	0.982	0.880	1.062	12.57
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.882	0.480	0.210	0.730	0.906	0.724	0.556	0.641	38.34
78)		Pyrene	2.178	2.063	2.002	1.754	1.870	1.898	1.674	1.920	9.14
79)	S	Terphenyl-d14	1.543	1.411	1.370	1.183	1.238	1.230	1.103	1.297	11.68
80)		Butylbenzylpht...	0.686	0.690	0.739	0.626	0.657	0.688	0.610	0.671	6.49
81)		Benzo(a)anthra...	1.532	1.410	1.453	1.270	1.375	1.355	1.265	1.380	6.96
82)		3,3'-Dichlorob...	0.412	0.422	0.427	0.418	0.478	0.466	0.449	0.439	5.82
83)		Chrysene	1.332	1.325	1.342	1.136	1.267	1.243	1.210	1.265	5.98
84)		Bis(2-ethylhex...	0.882	0.903	0.956	0.785	0.831	0.834	0.764	0.851	7.93
85)	c	Di-n-octyl pht...	1.194	1.267	1.438	1.230	1.365	1.406	1.352	1.321	6.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.217	1.268	1.337	1.257	1.348	1.322	1.287	1.291	3.67
88)		Benzo(b)fluora...	1.358	1.382	1.328	1.120	1.265	1.218	1.136	1.258	8.33
89)		Benzo(k)fluora...	1.167	1.114	1.274	1.083	1.049	1.060	1.054	1.114	7.32
90)	C	Benzo(a)pyrene	1.118	1.059	1.131	1.011	1.061	1.051	1.010	1.063	4.44
91)		Dibenzo(a,h)an...	0.966	1.001	1.101	1.016	1.087	1.071	1.028	1.039	4.73
92)		Benzo(g,h,i)pe...	1.011	1.075	1.139	1.043	1.123	1.105	1.063	1.080	4.22

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 01/31/2025 17:19

Lab File ID: BF141336.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.326		-3.9	
2-Fluorophenol	1.303	1.218		-6.5	
Phenol-d6	1.657	1.534		-7.4	
1,4-Dichlorobenzene	1.547	1.437		-7.2	20.0
2-Methylphenol	1.135	1.062		-6.4	
3+4-Methylphenols	1.393	1.318		-5.4	
Nitrobenzene-d5	0.379	0.348		-8.2	
Hexachloroethane	0.571	0.536		-6.1	
Nitrobenzene	0.393	0.365		-7.1	
Hexachlorobutadiene	0.194	0.179		-7.7	20.0
2,4,6-Trichlorophenol	0.372	0.365		-1.9	20.0
2-Fluorobiphenyl	1.299	1.148		-11.6	
2,4,5-Trichlorophenol	0.405	0.381		-5.9	
2,4-Dinitrotoluene	0.406	0.427		5.2	
2,4,6-Tribromophenol	0.183	0.177		-3.3	
Hexachlorobenzene	0.238	0.232		-2.5	
Pentachlorophenol	0.139	0.186		33.8	20.0
Terphenyl-d14	1.297	1.177		-9.3	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/03/2025 11:24

Lab File ID: BF141361.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.326		-3.9	
2-Fluorophenol	1.303	1.313		0.8	
Phenol-d6	1.657	1.641		-1.0	
1,4-Dichlorobenzene	1.547	1.568		1.4	20.0
2-Methylphenol	1.135	1.098		-3.3	
3+4-Methylphenols	1.393	1.446		3.8	
Nitrobenzene-d5	0.379	0.397		4.7	
Hexachloroethane	0.571	0.590		3.3	
Nitrobenzene	0.393	0.407		3.6	
Hexachlorobutadiene	0.194	0.207		6.7	20.0
2,4,6-Trichlorophenol	0.372	0.384		3.2	20.0
2-Fluorobiphenyl	1.299	1.315		1.2	
2,4,5-Trichlorophenol	0.405	0.416		2.7	
2,4-Dinitrotoluene	0.406	0.426		4.9	
2,4,6-Tribromophenol	0.183	0.200		9.3	
Hexachlorobenzene	0.238	0.249		4.6	
Pentachlorophenol	0.139	0.152		9.4	20.0
Terphenyl-d14	1.297	1.144		-11.8	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/03/2025 17:14

Lab File ID: BF141373.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.232		-10.7	
2-Fluorophenol	1.303	1.302		-0.1	
Phenol-d6	1.657	1.598		-3.6	
1,4-Dichlorobenzene	1.547	1.570		1.5	20.0
2-Methylphenol	1.135	1.109		-2.3	
3+4-Methylphenols	1.393	1.420		1.9	
Nitrobenzene-d5	0.379	0.382		0.8	
Hexachloroethane	0.571	0.590		3.3	
Nitrobenzene	0.393	0.389		-1.0	
Hexachlorobutadiene	0.194	0.204		5.2	20.0
2,4,6-Trichlorophenol	0.372	0.380		2.2	20.0
2-Fluorobiphenyl	1.299	1.292		-0.5	
2,4,5-Trichlorophenol	0.405	0.413		2.0	
2,4-Dinitrotoluene	0.406	0.423		4.2	
2,4,6-Tribromophenol	0.183	0.194		6.0	
Hexachlorobenzene	0.238	0.244		2.5	
Pentachlorophenol	0.139	0.157		12.9	20.0
Terphenyl-d14	1.297	1.274		-1.8	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Instrument ID: BNA_F Calibration Date/Time: 02/04/2025 10:42

Lab File ID: BF141398.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.270		-8.0	
2-Fluorophenol	1.303	1.302		-0.1	
Phenol-d6	1.657	1.560		-5.9	
1,4-Dichlorobenzene	1.547	1.539		-0.5	20.0
2-Methylphenol	1.135	1.074		-5.4	
3+4-Methylphenols	1.393	1.375		-1.3	
Nitrobenzene-d5	0.379	0.391		3.2	
Hexachloroethane	0.571	0.583		2.1	
Nitrobenzene	0.393	0.398		1.3	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
2,4,6-Trichlorophenol	0.372	0.382		2.7	20.0
2-Fluorobiphenyl	1.299	1.328		2.2	
2,4,5-Trichlorophenol	0.405	0.421		4.0	
2,4-Dinitrotoluene	0.406	0.441		8.6	
2,4,6-Tribromophenol	0.183	0.202		10.4	
Hexachlorobenzene	0.238	0.243		2.1	
Pentachlorophenol	0.139	0.161		15.8	20.0
Terphenyl-d14	1.297	1.200		-7.5	

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	

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LAB CHRONICLE

Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-46.2-012925								
Q1232-03	JPP-46.2-012925	SOIL	Endosulfan II	2.90	P	0.34	1.90	ug/kg
Q1232-03	JPP-46.2-012925	SOIL	4,4-DDD	2.80	P	0.21	1.90	ug/kg
			Total Concentration:	**5.700**				
Client ID : JPP-46.1-012925								
Q1232-07	JPP-46.1-012925	SOIL	Heptachlor	0.22	J	0.18	1.80	ug/kg
Q1232-07	JPP-46.1-012925	SOIL	Heptachlor epoxide	0.61	J	0.24	1.80	ug/kg
Q1232-07	JPP-46.1-012925	SOIL	4,4-DDE	0.43	J	0.14	1.80	ug/kg
Q1232-07	JPP-46.1-012925	SOIL	Endrin	0.60	JP	0.17	1.80	ug/kg
Q1232-07	JPP-46.1-012925	SOIL	4,4-DDT	1.60	JP	0.18	1.80	ug/kg
Q1232-07	JPP-46.1-012925	SOIL	alpha-Chlordane	1.20	JP	0.18	1.80	ug/kg
			Total Concentration:	**4.660**				
Client ID : JPP-42.1-012925								
Q1232-11	JPP-42.1-012925	SOIL	Heptachlor epoxide	0.34	J	0.26	1.90	ug/kg
Q1232-11	JPP-42.1-012925	SOIL	Endrin	0.25	J	0.18	1.90	ug/kg
Q1232-11	JPP-42.1-012925	SOIL	4,4-DDT	1.10	JP	0.19	1.90	ug/kg
Q1232-11	JPP-42.1-012925	SOIL	alpha-Chlordane	1.10	JP	0.19	1.90	ug/kg
			Total Concentration:	**2.790**				
Client ID : JPP-42.2-012925								
Q1232-15	JPP-42.2-012925	SOIL	Heptachlor	0.73	JP	0.18	1.80	ug/kg
Q1232-15	JPP-42.2-012925	SOIL	Heptachlor epoxide	0.28	J	0.25	1.80	ug/kg
Q1232-15	JPP-42.2-012925	SOIL	Endrin	0.20	J	0.17	1.80	ug/kg
Q1232-15	JPP-42.2-012925	SOIL	4,4-DDT	1.10	JP	0.18	1.80	ug/kg
Q1232-15	JPP-42.2-012925	SOIL	alpha-Chlordane	2.30	P	0.18	1.80	ug/kg
Q1232-15	JPP-42.2-012925	SOIL	gamma-Chlordane	1.20	JP	0.20	1.80	ug/kg
			Total Concentration:	**5.810**				
Client ID : JPP-51.1-012925								
Q1232-19	JPP-51.1-012925	SOIL	Heptachlor	0.44	JP	0.18	1.80	ug/kg
Q1232-19	JPP-51.1-012925	SOIL	Heptachlor epoxide	0.78	JP	0.24	1.80	ug/kg
Q1232-19	JPP-51.1-012925	SOIL	Endrin	0.49	JP	0.17	1.80	ug/kg
Q1232-19	JPP-51.1-012925	SOIL	4,4-DDD	0.66	J	0.20	1.80	ug/kg
Q1232-19	JPP-51.1-012925	SOIL	4,4-DDT	2.00	P	0.18	1.80	ug/kg
Q1232-19	JPP-51.1-012925	SOIL	alpha-Chlordane	2.90	P	0.18	1.80	ug/kg
			Total Concentration:	**7.270**				

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093946.D	1	01/31/25 08:15	01/31/25 17:01	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.90	U	0.20	1.90	ug/kg
319-85-7	beta-BHC	1.90	U	0.55	1.90	ug/kg
319-86-8	delta-BHC	1.90	U	0.53	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	1.90	U	0.21	1.90	ug/kg
76-44-8	Heptachlor	1.90	U	0.19	1.90	ug/kg
309-00-2	Aldrin	1.90	U	0.16	1.90	ug/kg
1024-57-3	Heptachlor epoxide	1.90	U	0.26	1.90	ug/kg
959-98-8	Endosulfan I	1.90	U	0.19	1.90	ug/kg
60-57-1	Dieldrin	1.90	U	0.17	1.90	ug/kg
72-55-9	4,4-DDE	1.90	U	0.15	1.90	ug/kg
72-20-8	Endrin	1.90	U	0.18	1.90	ug/kg
33213-65-9	Endosulfan II	2.90	P	0.34	1.90	ug/kg
72-54-8	4,4-DDD	2.80	P	0.21	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	1.90	U	0.15	1.90	ug/kg
50-29-3	4,4-DDT	1.90	U	0.19	1.90	ug/kg
72-43-5	Methoxychlor	1.90	U	0.43	1.90	ug/kg
53494-70-5	Endrin ketone	1.90	U	0.25	1.90	ug/kg
7421-93-4	Endrin aldehyde	1.90	U	0.44	1.90	ug/kg
5103-71-9	alpha-Chlordane	1.90	U	0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	1.90	U	0.21	1.90	ug/kg
8001-35-2	Toxaphene	36.9	U	5.80	36.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	30.3	*	10 - 148	152%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.0		10 - 159	110%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093946.D	1	01/31/25 08:15	01/31/25 17:01	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	94 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093947.D	1	01/31/25 08:15	01/31/25 17:14	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.80	U	0.19	1.80	ug/kg
319-85-7	beta-BHC	1.80	U	0.52	1.80	ug/kg
319-86-8	delta-BHC	1.80	U	0.50	1.80	ug/kg
58-89-9	gamma-BHC (Lindane)	1.80	U	0.20	1.80	ug/kg
76-44-8	Heptachlor	0.22	J	0.18	1.80	ug/kg
309-00-2	Aldrin	1.80	U	0.15	1.80	ug/kg
1024-57-3	Heptachlor epoxide	0.61	J	0.24	1.80	ug/kg
959-98-8	Endosulfan I	1.80	U	0.18	1.80	ug/kg
60-57-1	Dieldrin	1.80	U	0.16	1.80	ug/kg
72-55-9	4,4-DDE	0.43	J	0.14	1.80	ug/kg
72-20-8	Endrin	0.60	JP	0.17	1.80	ug/kg
33213-65-9	Endosulfan II	1.80	U	0.32	1.80	ug/kg
72-54-8	4,4-DDD	1.80	U	0.20	1.80	ug/kg
1031-07-8	Endosulfan Sulfate	1.80	U	0.14	1.80	ug/kg
50-29-3	4,4-DDT	1.60	JP	0.18	1.80	ug/kg
72-43-5	Methoxychlor	1.80	U	0.40	1.80	ug/kg
53494-70-5	Endrin ketone	1.80	U	0.23	1.80	ug/kg
7421-93-4	Endrin aldehyde	1.80	U	0.41	1.80	ug/kg
5103-71-9	alpha-Chlordane	1.20	JP	0.18	1.80	ug/kg
5103-74-2	gamma-Chlordane	1.80	U	0.20	1.80	ug/kg
8001-35-2	Toxaphene	35.1	U	5.50	35.1	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.4		10 - 148	102%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.1		10 - 159	80%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	94 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093947.D	1	01/31/25 08:15	01/31/25 17:14	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.1 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093948.D	1	01/31/25 08:15	01/31/25 17:27	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.90	U	0.20	1.90	ug/kg
319-85-7	beta-BHC	1.90	U	0.55	1.90	ug/kg
319-86-8	delta-BHC	1.90	U	0.53	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	1.90	U	0.22	1.90	ug/kg
76-44-8	Heptachlor	1.90	U	0.19	1.90	ug/kg
309-00-2	Aldrin	1.90	U	0.16	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.34	J	0.26	1.90	ug/kg
959-98-8	Endosulfan I	1.90	U	0.19	1.90	ug/kg
60-57-1	Dieldrin	1.90	U	0.17	1.90	ug/kg
72-55-9	4,4-DDE	1.90	U	0.15	1.90	ug/kg
72-20-8	Endrin	0.25	J	0.18	1.90	ug/kg
33213-65-9	Endosulfan II	1.90	U	0.34	1.90	ug/kg
72-54-8	4,4-DDD	1.90	U	0.22	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	1.90	U	0.15	1.90	ug/kg
50-29-3	4,4-DDT	1.10	JP	0.19	1.90	ug/kg
72-43-5	Methoxychlor	1.90	U	0.43	1.90	ug/kg
53494-70-5	Endrin ketone	1.90	U	0.25	1.90	ug/kg
7421-93-4	Endrin aldehyde	1.90	U	0.44	1.90	ug/kg
5103-71-9	alpha-Chlordane	1.10	JP	0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	1.90	U	0.22	1.90	ug/kg
8001-35-2	Toxaphene	37.4	U	5.90	37.4	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.1		10 - 148	80%	SPK: 20
877-09-8	Tetrachloro-m-xylene	15.6		10 - 159	78%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.1 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093948.D	1	01/31/25 08:15	01/31/25 17:27	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	93.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093949.D	1	01/31/25 08:15	01/31/25 17:40	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.80	U	0.19	1.80	ug/kg
319-85-7	beta-BHC	1.80	U	0.52	1.80	ug/kg
319-86-8	delta-BHC	1.80	U	0.50	1.80	ug/kg
58-89-9	gamma-BHC (Lindane)	1.80	U	0.20	1.80	ug/kg
76-44-8	Heptachlor	0.73	JP	0.18	1.80	ug/kg
309-00-2	Aldrin	1.80	U	0.15	1.80	ug/kg
1024-57-3	Heptachlor epoxide	0.28	J	0.25	1.80	ug/kg
959-98-8	Endosulfan I	1.80	U	0.18	1.80	ug/kg
60-57-1	Dieldrin	1.80	U	0.16	1.80	ug/kg
72-55-9	4,4-DDE	1.80	U	0.14	1.80	ug/kg
72-20-8	Endrin	0.20	J	0.17	1.80	ug/kg
33213-65-9	Endosulfan II	1.80	U	0.32	1.80	ug/kg
72-54-8	4,4-DDD	1.80	U	0.20	1.80	ug/kg
1031-07-8	Endosulfan Sulfate	1.80	U	0.14	1.80	ug/kg
50-29-3	4,4-DDT	1.10	JP	0.18	1.80	ug/kg
72-43-5	Methoxychlor	1.80	U	0.41	1.80	ug/kg
53494-70-5	Endrin ketone	1.80	U	0.24	1.80	ug/kg
7421-93-4	Endrin aldehyde	1.80	U	0.42	1.80	ug/kg
5103-71-9	alpha-Chlordane	2.30	P	0.18	1.80	ug/kg
5103-74-2	gamma-Chlordane	1.20	JP	0.20	1.80	ug/kg
8001-35-2	Toxaphene	35.3	U	5.60	35.3	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.6		10 - 148	83%	SPK: 20
877-09-8	Tetrachloro-m-xylene	17.5		10 - 159	88%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	93.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093949.D	1	01/31/25 08:15	01/31/25 17:40	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	95.1 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093950.D	1	01/31/25 08:15	01/31/25 17:53	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.80	U	0.19	1.80	ug/kg
319-85-7	beta-BHC	1.80	U	0.51	1.80	ug/kg
319-86-8	delta-BHC	1.80	U	0.49	1.80	ug/kg
58-89-9	gamma-BHC (Lindane)	1.80	U	0.20	1.80	ug/kg
76-44-8	Heptachlor	0.44	JP	0.18	1.80	ug/kg
309-00-2	Aldrin	1.80	U	0.15	1.80	ug/kg
1024-57-3	Heptachlor epoxide	0.78	JP	0.24	1.80	ug/kg
959-98-8	Endosulfan I	1.80	U	0.18	1.80	ug/kg
60-57-1	Dieldrin	1.80	U	0.16	1.80	ug/kg
72-55-9	4,4-DDE	1.80	U	0.14	1.80	ug/kg
72-20-8	Endrin	0.49	JP	0.17	1.80	ug/kg
33213-65-9	Endosulfan II	1.80	U	0.32	1.80	ug/kg
72-54-8	4,4-DDD	0.66	J	0.20	1.80	ug/kg
1031-07-8	Endosulfan Sulfate	1.80	U	0.14	1.80	ug/kg
50-29-3	4,4-DDT	2.00	P	0.18	1.80	ug/kg
72-43-5	Methoxychlor	1.80	U	0.40	1.80	ug/kg
53494-70-5	Endrin ketone	1.80	U	0.23	1.80	ug/kg
7421-93-4	Endrin aldehyde	1.80	U	0.41	1.80	ug/kg
5103-71-9	alpha-Chlordane	2.90	P	0.18	1.80	ug/kg
5103-74-2	gamma-Chlordane	1.80	U	0.20	1.80	ug/kg
8001-35-2	Toxaphene	34.7	U	5.50	34.7	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.1		10 - 148	81%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.4		10 - 159	82%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	95.1 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093950.D	1	01/31/25 08:15	01/31/25 17:53	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
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() = Laboratory InHouse Limit

QC SUMMARY

Alliance TECHNICAL GROUP
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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093725.D	PIBLK-PL093725.D	Decachlorobiphenyl	1	20	22.1	111		43	140
		Tetrachloro-m-xylene	1	20	20.8	104		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
I.BLK-PL093928.D	PIBLK-PL093928.D	Decachlorobiphenyl	1	20	20.6	103		43	140
		Tetrachloro-m-xylene	1	20	21.1	106		77	126
		Decachlorobiphenyl	2	20	20.4	102		43	140
		Tetrachloro-m-xylene	2	20	19.8	99		77	126
PB166413BL	PB166413BL	Decachlorobiphenyl	1	20	24.6	123		10	148
		Tetrachloro-m-xylene	1	20	23.8	119		10	159
		Decachlorobiphenyl	2	20	24.1	121		10	148
		Tetrachloro-m-xylene	2	20	22.1	110		10	159
PB166413BS	PB166413BS	Decachlorobiphenyl	1	20	21.2	106		10	148
		Tetrachloro-m-xylene	1	20	20.0	100		10	159
		Decachlorobiphenyl	2	20	21.7	109		10	148
		Tetrachloro-m-xylene	2	20	18.6	93		10	159
I.BLK-PL093942.D	PIBLK-PL093942.D	Decachlorobiphenyl	1	20	22.6	113		43	140
		Tetrachloro-m-xylene	1	20	21.7	109		77	126
		Decachlorobiphenyl	2	20	22.3	111		43	140
		Tetrachloro-m-xylene	2	20	20.1	101		77	126
Q1232-03	JPP-46.2-012925	Decachlorobiphenyl	1	20	24.1	120		10	148
		Tetrachloro-m-xylene	1	20	18.1	91		10	159
		Decachlorobiphenyl	2	20	30.3	152	*	10	148
		Tetrachloro-m-xylene	2	20	22.0	110		10	159
Q1232-07	JPP-46.1-012925	Decachlorobiphenyl	1	20	20.4	102		10	148
		Tetrachloro-m-xylene	1	20	16.1	80		10	159
		Decachlorobiphenyl	2	20	12.8	64		10	148
		Tetrachloro-m-xylene	2	20	15.4	77		10	159
Q1232-11	JPP-42.1-012925	Decachlorobiphenyl	1	20	16.1	80		10	148
		Tetrachloro-m-xylene	1	20	14.7	74		10	159
		Decachlorobiphenyl	2	20	14.8	74		10	148
		Tetrachloro-m-xylene	2	20	15.6	78		10	159
Q1232-15	JPP-42.2-012925	Decachlorobiphenyl	1	20	16.6	83		10	148
		Tetrachloro-m-xylene	1	20	15.7	79		10	159
		Decachlorobiphenyl	2	20	13.3	66		10	148
		Tetrachloro-m-xylene	2	20	17.5	88		10	159
Q1232-19	JPP-51.1-012925	Decachlorobiphenyl	1	20	16.1	81		10	148
		Tetrachloro-m-xylene	1	20	16.3	81		10	159
		Decachlorobiphenyl	2	20	14.1	71		10	148
		Tetrachloro-m-xylene	2	20	16.4	82		10	159
I.BLK-PL093957.D	PIBLK-PL093957.D	Decachlorobiphenyl	1	20	20.4	102		43	140

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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093957.D	PIBLK-PL093957.D	Tetrachloro-m-xylene	1	20	22.0	110		77	126
		Decachlorobiphenyl	2	20	17.1	86		43	140
		Tetrachloro-m-xylene	2	20	20.8	104		77	126
Q1239-10MS	357MS	Decachlorobiphenyl	1	20	14.9	75		10	148
		Tetrachloro-m-xylene	1	20	19.1	95		10	159
		Decachlorobiphenyl	2	20	13.7	69		10	148
		Tetrachloro-m-xylene	2	20	18.0	90		10	159
Q1239-10MSD	357MSD	Decachlorobiphenyl	1	20	15.4	77		10	148
		Tetrachloro-m-xylene	1	20	18.7	93		10	159
		Decachlorobiphenyl	2	20	13.6	68		10	148
		Tetrachloro-m-xylene	2	20	17.9	90		10	159
I.BLK-PL093970.D	PIBLK-PL093970.D	Decachlorobiphenyl	1	20	19.3	96		43	140
		Tetrachloro-m-xylene	1	20	21.3	107		77	126
		Decachlorobiphenyl	2	20	16.1	81		43	140
		Tetrachloro-m-xylene	2	20	20.0	100		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093960.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**357MS**											
Q1239-10MS	alpha-BHC	19.63	0	19.6	ug/kg	100				60	144	
	beta-BHC	19.63	0	19.9	ug/kg	101				54	143	
	delta-BHC	19.63	0	19.1	ug/kg	97				47	144	
	gamma-BHC (Lindane)	19.63	0	19.2	ug/kg	98				61	140	
	Heptachlor	19.63	0	19.1	ug/kg	97				63	135	
	Aldrin	19.63	0	19.3	ug/kg	98				49	139	
	Heptachlor epoxide	19.63	0	20.0	ug/kg	102				32	180	
	Endosulfan I	19.63	0	19.0	ug/kg	97				56	142	
	Dieldrin	19.63	0	20.5	ug/kg	104				47	161	
	4,4'-DDE	19.63	0	21.4	ug/kg	109				55	136	
	Endrin	19.63	0	20.2	ug/kg	103				57	139	
	Endosulfan II	19.63	0	19.5	ug/kg	99				40	163	
	4,4'-DDD	19.63	0.28	22.0	ug/kg	111				37	192	
	Endosulfan sulfate	19.63	0	18.4	ug/kg	94				62	139	
	4,4'-DDT	19.63	0	18.9	ug/kg	96				51	146	
	Methoxychlor	19.63	0	17.5	ug/kg	89				54	136	
	Endrin ketone	19.63	0	17.5	ug/kg	89				60	129	
	Endrin aldehyde	19.63	0	13.7	ug/kg	70				59	132	
	alpha-Chlordane	19.63	0	20.4	ug/kg	104				30	192	
	gamma-Chlordane	19.63	0	21.0	ug/kg	107				44	175	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093961.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**357MSD**											
Q1239-10MSD	alpha-BHC	19.65	0	19.8	ug/kg	101		1		60	144	20
	beta-BHC	19.65	0	20.1	ug/kg	102		1		54	143	20
	delta-BHC	19.65	0	20.0	ug/kg	102		5		47	144	20
	gamma-BHC (Lindane)	19.65	0	19.4	ug/kg	99		1		61	140	20
	Heptachlor	19.65	0	20.3	ug/kg	103		6		63	135	20
	Aldrin	19.65	0	19.5	ug/kg	99		1		49	139	20
	Heptachlor epoxide	19.65	0	20.0	ug/kg	102		0		32	180	20
	Endosulfan I	19.65	0	19.5	ug/kg	99		2		56	142	20
	Dieldrin	19.65	0	20.6	ug/kg	105		1		47	161	20
	4,4'-DDE	19.65	0	21.4	ug/kg	109		0		55	136	20
	Endrin	19.65	0	20.9	ug/kg	106		3		57	139	20
	Endosulfan II	19.65	0	20.1	ug/kg	102		3		40	163	20
	4,4'-DDD	19.65	0.28	22.2	ug/kg	112		1		37	192	20
	Endosulfan sulfate	19.65	0	19.7	ug/kg	100		6		62	139	20
	4,4'-DDT	19.65	0	20.5	ug/kg	104		8		51	146	20
	Methoxychlor	19.65	0	19.8	ug/kg	101		13		54	136	20
	Endrin ketone	19.65	0	18.8	ug/kg	96		8		60	129	20
	Endrin aldehyde	19.65	0	18.7	ug/kg	95		30	*	59	132	20
	alpha-Chlordane	19.65	0	20.6	ug/kg	105		1		30	192	20
	gamma-Chlordane	19.65	0	20.9	ug/kg	106		1		44	175	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL093941.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166413BS	alpha-BHC	16.66	14.9	ug/kg	89				84	123	
	beta-BHC	16.66	15.1	ug/kg	91				82	123	
	delta-BHC	16.66	15.1	ug/kg	91				83	126	
	gamma-BHC (Lindane)	16.66	14.8	ug/kg	89				83	125	
	Heptachlor	16.66	16.0	ug/kg	96				83	122	
	Aldrin	16.66	15.0	ug/kg	90				82	124	
	Heptachlor epoxide	16.66	15.3	ug/kg	92				83	120	
	Endosulfan I	16.66	15.4	ug/kg	92				81	124	
	Dieldrin	16.66	15.5	ug/kg	93				85	121	
	4,4'-DDE	16.66	16.5	ug/kg	99				81	123	
	Endrin	16.66	16.8	ug/kg	101				76	130	
	Endosulfan II	16.66	16.2	ug/kg	97				80	125	
	4,4'-DDD	16.66	17.1	ug/kg	103				80	131	
	Endosulfan sulfate	16.66	16.2	ug/kg	97				81	122	
	4,4'-DDT	16.66	17.5	ug/kg	105				70	129	
	Methoxychlor	16.66	17.2	ug/kg	103				60	119	
	Endrin ketone	16.66	15.7	ug/kg	94				77	132	
	Endrin aldehyde	16.66	15.3	ug/kg	92				79	124	
	alpha-Chlordane	16.66	15.7	ug/kg	94				84	120	
	gamma-Chlordane	16.66	15.7	ug/kg	94				83	122	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166413BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab Sample ID: PB166413BL Lab File ID: PL093940.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/31/2025

Date Analyzed (1): 01/31/2025 Date Analyzed (2): 01/31/2025

Time Analyzed (1): 14:28 Time Analyzed (2): 14:28

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166413BS	PB166413BS	PL093941.D	01/31/2025	01/31/2025
JPP-46.2-012925	Q1232-03	PL093946.D	01/31/2025	01/31/2025
JPP-46.1-012925	Q1232-07	PL093947.D	01/31/2025	01/31/2025
JPP-42.1-012925	Q1232-11	PL093948.D	01/31/2025	01/31/2025
JPP-42.2-012925	Q1232-15	PL093949.D	01/31/2025	01/31/2025
JPP-51.1-012925	Q1232-19	PL093950.D	01/31/2025	01/31/2025
357MS	Q1239-10MS	PL093960.D	01/31/2025	01/31/2025
357MSD	Q1239-10MSD	PL093961.D	01/31/2025	01/31/2025

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BL	SDG No.:	Q1232
Lab Sample ID:	PB166413BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093940.D	1	01/31/25 08:15	01/31/25 14:28	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.70	U	0.18	1.70	ug/kg
319-85-7	beta-BHC	1.70	U	0.49	1.70	ug/kg
319-86-8	delta-BHC	1.70	U	0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	1.70	U	0.19	1.70	ug/kg
76-44-8	Heptachlor	1.70	U	0.17	1.70	ug/kg
309-00-2	Aldrin	1.70	U	0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	1.70	U	0.23	1.70	ug/kg
959-98-8	Endosulfan I	1.70	U	0.17	1.70	ug/kg
60-57-1	Dieldrin	1.70	U	0.15	1.70	ug/kg
72-55-9	4,4-DDE	1.70	U	0.13	1.70	ug/kg
72-20-8	Endrin	1.70	U	0.16	1.70	ug/kg
33213-65-9	Endosulfan II	1.70	U	0.30	1.70	ug/kg
72-54-8	4,4-DDD	1.70	U	0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	1.70	U	0.13	1.70	ug/kg
50-29-3	4,4-DDT	1.70	U	0.17	1.70	ug/kg
72-43-5	Methoxychlor	1.70	U	0.38	1.70	ug/kg
53494-70-5	Endrin ketone	1.70	U	0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	1.70	U	0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	1.70	U	0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	1.70	U	0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.6		10 - 148	123%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.8		10 - 159	119%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BL	SDG No.:	Q1232
Lab Sample ID:	PB166413BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093940.D	1	01/31/25 08:15	01/31/25 14:28	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.1		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		77 - 126	104%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093928.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093928.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093928.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.6		43 - 140	103%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		77 - 126	106%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093928.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093928.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093928.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093942.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093942.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093942.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.6		43 - 140	113%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.7		77 - 126	109%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093942.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093942.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093942.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093957.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093957.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093957.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.4		43 - 140	102%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.0		77 - 126	110%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093957.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093957.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093957.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093970.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093970.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093970.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.3		43 - 140	96%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.3		77 - 126	107%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093970.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093970.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093970.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BS	SDG No.:	Q1232
Lab Sample ID:	PB166413BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093941.D	1	01/31/25 08:15	01/31/25 14:43	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	14.9		0.18	1.70	ug/kg
319-85-7	beta-BHC	15.1		0.49	1.70	ug/kg
319-86-8	delta-BHC	15.1		0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	14.8		0.19	1.70	ug/kg
76-44-8	Heptachlor	16.0		0.17	1.70	ug/kg
309-00-2	Aldrin	15.0		0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	15.3		0.23	1.70	ug/kg
959-98-8	Endosulfan I	15.4		0.17	1.70	ug/kg
60-57-1	Dieldrin	15.5		0.15	1.70	ug/kg
72-55-9	4,4-DDE	16.5		0.13	1.70	ug/kg
72-20-8	Endrin	16.8		0.16	1.70	ug/kg
33213-65-9	Endosulfan II	16.2		0.30	1.70	ug/kg
72-54-8	4,4-DDD	17.1		0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	16.2		0.13	1.70	ug/kg
50-29-3	4,4-DDT	17.5		0.17	1.70	ug/kg
72-43-5	Methoxychlor	17.2		0.38	1.70	ug/kg
53494-70-5	Endrin ketone	15.7		0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	15.3		0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	15.7		0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	15.7		0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.7		10 - 148	109%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.0		10 - 159	100%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BS	SDG No.:	Q1232
Lab Sample ID:	PB166413BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093941.D	1	01/31/25 08:15	01/31/25 14:43	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093960.D	1	01/31/25 08:15	01/31/25 20:31	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	19.6		0.21	2.00	ug/kg
319-85-7	beta-BHC	19.9		0.58	2.00	ug/kg
319-86-8	delta-BHC	19.1		0.55	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	19.2		0.22	2.00	ug/kg
76-44-8	Heptachlor	19.1		0.20	2.00	ug/kg
309-00-2	Aldrin	19.3		0.16	2.00	ug/kg
1024-57-3	Heptachlor epoxide	20.0		0.27	2.00	ug/kg
959-98-8	Endosulfan I	19.0		0.20	2.00	ug/kg
60-57-1	Dieldrin	20.5		0.18	2.00	ug/kg
72-55-9	4,4-DDE	21.4		0.15	2.00	ug/kg
72-20-8	Endrin	20.2		0.19	2.00	ug/kg
33213-65-9	Endosulfan II	19.5		0.35	2.00	ug/kg
72-54-8	4,4-DDD	22.0		0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	18.4		0.15	2.00	ug/kg
50-29-3	4,4-DDT	18.9		0.20	2.00	ug/kg
72-43-5	Methoxychlor	17.5		0.45	2.00	ug/kg
53494-70-5	Endrin ketone	17.5		0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	13.7		0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	20.4		0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	21.0		0.22	2.00	ug/kg
8001-35-2	Toxaphene	38.9	U	6.10	38.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	14.9		10 - 148	75%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.1		10 - 159	95%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093960.D	1	01/31/25 08:15	01/31/25 20:31	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093961.D	1	01/31/25 08:15	01/31/25 20:45	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	19.8		0.21	2.00	ug/kg
319-85-7	beta-BHC	20.1		0.58	2.00	ug/kg
319-86-8	delta-BHC	20.0		0.55	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	19.4		0.22	2.00	ug/kg
76-44-8	Heptachlor	20.3		0.20	2.00	ug/kg
309-00-2	Aldrin	19.5		0.17	2.00	ug/kg
1024-57-3	Heptachlor epoxide	20.0		0.27	2.00	ug/kg
959-98-8	Endosulfan I	19.5		0.20	2.00	ug/kg
60-57-1	Dieldrin	20.6		0.18	2.00	ug/kg
72-55-9	4,4-DDE	21.4		0.15	2.00	ug/kg
72-20-8	Endrin	20.9		0.19	2.00	ug/kg
33213-65-9	Endosulfan II	20.1		0.35	2.00	ug/kg
72-54-8	4,4-DDD	22.2		0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	19.7		0.15	2.00	ug/kg
50-29-3	4,4-DDT	20.5		0.20	2.00	ug/kg
72-43-5	Methoxychlor	19.8		0.45	2.00	ug/kg
53494-70-5	Endrin ketone	18.8		0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	18.7		0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	20.6		0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	20.9		0.22	2.00	ug/kg
8001-35-2	Toxaphene	38.9	U	6.20	38.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.4		10 - 148	77%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.7		10 - 159	93%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1232
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093961.D	1	01/31/25 08:15	01/31/25 20:45	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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

RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	6.71	6.71	6.71	6.71	6.71	6.71	6.61	6.81
4,4'-DDE	6.19	6.19	6.19	6.19	6.19	6.19	6.09	6.29
4,4'-DDT	7.02	7.02	7.02	7.02	7.02	7.02	6.92	7.12
Aldrin	5.26	5.26	5.26	5.26	5.26	5.26	5.16	5.36
alpha-BHC	4.00	4.00	4.00	4.00	3.99	3.99	3.89	4.09
alpha-Chlordane	6.02	6.02	6.02	6.02	6.02	6.02	5.92	6.12
beta-BHC	4.53	4.53	4.53	4.53	4.53	4.53	4.43	4.63
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
delta-BHC	4.77	4.77	4.77	4.77	4.77	4.77	4.67	4.87
Dieldrin	6.34	6.34	6.34	6.34	6.34	6.34	6.24	6.44
Endosulfan I	6.07	6.07	6.07	6.07	6.07	6.07	5.97	6.17
Endosulfan II	6.79	6.79	6.79	6.79	6.79	6.79	6.69	6.89
Endosulfan sulfate	7.16	7.16	7.16	7.16	7.16	7.16	7.06	7.26
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
Endrin aldehyde	6.92	6.92	6.92	6.92	6.92	6.92	6.82	7.02
Endrin ketone	7.64	7.64	7.64	7.64	7.64	7.64	7.54	7.74
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
gamma-Chlordane	5.94	5.94	5.94	5.94	5.94	5.94	5.84	6.04
Heptachlor	4.92	4.92	4.91	4.91	4.91	4.91	4.81	5.01
Heptachlor epoxide	5.68	5.68	5.68	5.68	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	5.79	5.78	5.78	5.78	5.78	5.78	5.68	5.88
4,4'-DDE	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
4,4'-DDT	6.04	6.03	6.03	6.03	6.03	6.03	5.93	6.13
Aldrin	4.23	4.23	4.23	4.22	4.22	4.22	4.12	4.32
alpha-BHC	3.28	3.28	3.28	3.28	3.28	3.28	3.18	3.38
alpha-Chlordane	5.04	5.04	5.04	5.04	5.04	5.04	4.94	5.14
beta-BHC	3.91	3.91	3.91	3.91	3.91	3.91	3.81	4.01
Decachlorobiphenyl	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
delta-BHC	4.14	4.14	4.14	4.14	4.13	4.14	4.04	4.24
Dieldrin	5.36	5.36	5.36	5.36	5.36	5.36	5.26	5.46
Endosulfan I	5.10	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Endosulfan II	5.93	5.93	5.93	5.93	5.93	5.93	5.83	6.03
Endosulfan sulfate	6.33	6.33	6.33	6.33	6.33	6.33	6.23	6.43
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Endrin aldehyde	6.11	6.11	6.11	6.11	6.11	6.11	6.01	6.21
Endrin ketone	6.84	6.84	6.84	6.84	6.84	6.84	6.74	6.94
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
gamma-Chlordane	4.98	4.98	4.98	4.98	4.98	4.98	4.88	5.08
Heptachlor	3.95	3.95	3.95	3.95	3.94	3.94	3.84	4.04
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.77	2.77	2.77	2.77	2.77	2.67	2.87

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	1660930000	1679650000	1932670000	1802720000	2426830000	1900560000	17
4,4'-DDE	2179870000	2169930000	2489080000	2321590000	3012520000	2434600000	14
4,4'-DDT	1755570000	1766710000	2016720000	1907120000	2414170000	1972060000	14
Aldrin	2924220000	2896750000	3292630000	3099660000	4146570000	3271970000	16
alpha-BHC	3537700000	3490280000	3918110000	3562830000	4660310000	3833850000	13
alpha-Chlordane	2458070000	2458490000	2788200000	2666580000	3570690000	2788400000	16
beta-BHC	1393460000	1394440000	1618290000	1508890000	2121530000	1607320000	19
Decachlorobiphenyl	1768480000	1816480000	2098320000	2018470000	2757820000	2091910000	19
delta-BHC	3233860000	3194550000	3605880000	3303370000	4188780000	3505290000	12
Dieldrin	2456580000	2440810000	2788190000	2639340000	3554340000	2775850000	17
Endosulfan I	2304400000	2298550000	2637060000	2528610000	3445650000	2642860000	18
Endosulfan II	2084130000	2100600000	2413950000	2287820000	3160260000	2409350000	18
Endosulfan sulfate	1923100000	1945070000	2248580000	2190510000	3011450000	2263740000	20
Endrin	2079430000	2060990000	2363220000	2218560000	3001890000	2344820000	17
Endrin aldehyde	1673120000	1696040000	1958970000	1896570000	2495580000	1944060000	17
Endrin ketone	2196850000	2205550000	2539700000	2413910000	3257130000	2522630000	17
gamma-BHC (Lindane)	3375960000	3339350000	3767250000	3460830000	4470850000	3682850000	13
gamma-Chlordane	2455830000	2471830000	2815630000	2678390000	3515170000	2787370000	16
Heptachlor	2922500000	2901690000	3325290000	3144100000	4093120000	3277340000	15
Heptachlor epoxide	2568680000	2575960000	2953630000	2835830000	3935020000	2973820000	19
Methoxychlor	907284000	922109000	1080370000	1020090000	1287130000	1043400000	15
Tetrachloro-m-xylene	2397870000	2402980000	2740040000	2595500000	3327420000	2692760000	14

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	3134000000	3054730000	3379160000	2910470000	3304320000	3156540000	6
4,4'-DDE	3891920000	3807640000	4253650000	3749010000	4345130000	4009470000	7
4,4'-DDT	3270010000	3177800000	3542860000	3046890000	3232670000	3254050000	6
Aldrin	4482990000	4370810000	4856520000	4222470000	4876190000	4561800000	6
alpha-BHC	4914190000	4768640000	5271080000	4480730000	5010260000	4888980000	6
alpha-Chlordane	4056970000	3962110000	4424110000	3914810000	4574820000	4186560000	7
beta-BHC	1863440000	1842720000	2072180000	1889740000	2319100000	1997440000	10
Decachlorobiphenyl	3226690000	3193800000	3627020000	3320620000	4152210000	3504070000	11
delta-BHC	4741230000	4607910000	5098810000	4368820000	4939430000	4751240000	6
Dieldrin	4189300000	4076770000	4553570000	3958830000	4699760000	4295650000	7
Endosulfan I	3734100000	3661580000	4099030000	3635320000	4254550000	3876920000	7
Endosulfan II	3553260000	3487640000	3912960000	3484510000	4080760000	3703830000	7
Endosulfan sulfate	3408630000	3353240000	3757030000	3348270000	3963240000	3566080000	8
Endrin	3607760000	3481170000	3870730000	3406140000	4097610000	3692680000	8
Endrin aldehyde	2861460000	2820180000	3183430000	2892290000	3465840000	3044640000	9
Endrin ketone	3965120000	3881890000	4400080000	3907370000	4821740000	4195240000	10
gamma-BHC (Lindane)	4713370000	4597010000	5084610000	4384810000	4926270000	4741210000	6
gamma-Chlordane	4137240000	4016860000	4483010000	3935490000	4615500000	4237620000	7
Heptachlor	4505180000	4413750000	4924840000	4345980000	5084220000	4654790000	7
Heptachlor epoxide	4026840000	3946880000	4424170000	3927960000	4575440000	4180260000	7
Methoxychlor	1651870000	1634200000	1870410000	1643810000	2140390000	1788140000	12
Tetrachloro-m-xylene	3101220000	3058550000	3437230000	3066200000	3657590000	3264160000	8

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	6.24	6.14	6.34	23446000
		2	6.44	6.34	6.54	14767200
		3	7.06	6.96	7.16	75896000
		4	7.15	7.05	7.25	57345100
		5	7.93	7.83	8.03	43067100

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	5.00	4.90	5.10	27057100
		2	5.33	5.23	5.43	23947200
		3	5.68	5.58	5.78	24726400
		4	6.60	6.50	6.70	84987200
		5	7.04	6.94	7.14	80238300

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 11:17 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 11:17 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093930.D **Time Analyzed:** 11:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.709	6.608	6.808	50.910	50.000	1.8
4,4'-DDE	6.192	6.091	6.291	50.300	50.000	0.6
4,4'-DDT	7.023	6.922	7.122	52.710	50.000	5.4
Aldrin	5.256	5.156	5.356	45.640	50.000	-8.7
alpha-BHC	3.993	3.895	4.095	47.930	50.000	-4.1
alpha-Chlordane	6.018	5.917	6.117	46.290	50.000	-7.4
beta-BHC	4.525	4.425	4.625	47.920	50.000	-4.2
Decachlorobiphenyl	9.055	8.953	9.153	45.000	50.000	-10.0
delta-BHC	4.772	4.672	4.872	44.790	50.000	-10.4
Dieldrin	6.344	6.243	6.443	45.550	50.000	-8.9
Endosulfan I	6.068	5.967	6.167	45.360	50.000	-9.3
Endosulfan II	6.793	6.692	6.892	45.890	50.000	-8.2
Endosulfan sulfate	7.158	7.057	7.257	44.420	50.000	-11.2
Endrin	6.572	6.472	6.672	46.850	50.000	-6.3
Endrin aldehyde	6.923	6.823	7.023	43.790	50.000	-12.4
Endrin ketone	7.644	7.542	7.742	44.060	50.000	-11.9
gamma-BHC (Lindane)	4.326	4.227	4.427	47.240	50.000	-5.5
gamma-Chlordane	5.939	5.838	6.038	46.300	50.000	-7.4
Heptachlor	4.914	4.814	5.014	49.110	50.000	-1.8
Heptachlor epoxide	5.683	5.582	5.782	44.870	50.000	-10.3
Methoxychlor	7.500	7.398	7.598	51.410	50.000	2.8
Tetrachloro-m-xylene	3.538	3.439	3.639	47.330	50.000	-5.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093930.D **Time Analyzed:** 11:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	51.360	50.000	2.7
4,4'-DDE	5.229	5.130	5.330	51.230	50.000	2.5
4,4'-DDT	6.034	5.934	6.134	53.970	50.000	7.9
Aldrin	4.224	4.125	4.325	46.010	50.000	-8.0
alpha-BHC	3.276	3.177	3.377	48.050	50.000	-3.9
alpha-Chlordane	5.040	4.940	5.140	47.780	50.000	-4.4
beta-BHC	3.906	3.807	4.007	47.900	50.000	-4.2
Decachlorobiphenyl	7.910	7.810	8.010	47.390	50.000	-5.2
delta-BHC	4.135	4.036	4.236	46.170	50.000	-7.7
Dieldrin	5.361	5.261	5.461	47.240	50.000	-5.5
Endosulfan I	5.096	4.996	5.196	44.020	50.000	-12.0
Endosulfan II	5.931	5.831	6.031	47.980	50.000	-4.0
Endosulfan sulfate	6.333	6.233	6.433	47.140	50.000	-5.7
Endrin	5.636	5.536	5.736	51.340	50.000	2.7
Endrin aldehyde	6.110	6.010	6.210	44.640	50.000	-10.7
Endrin ketone	6.839	6.739	6.939	45.680	50.000	-8.6
gamma-BHC (Lindane)	3.606	3.507	3.707	45.940	50.000	-8.1
gamma-Chlordane	4.977	4.877	5.077	48.730	50.000	-2.5
Heptachlor	3.945	3.845	4.045	48.380	50.000	-3.2
Heptachlor epoxide	4.727	4.627	4.827	46.190	50.000	-7.6
Methoxychlor	6.610	6.509	6.709	52.540	50.000	5.1
Tetrachloro-m-xylene	2.774	2.674	2.874	47.580	50.000	-4.8

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

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 15:10 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 15:10 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093943.D **Time Analyzed:** 15:10

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	54.880	50.000	9.8
4,4'-DDE	6.192	6.091	6.291	53.640	50.000	7.3
4,4'-DDT	7.023	6.922	7.122	53.570	50.000	7.1
Aldrin	5.256	5.156	5.356	48.820	50.000	-2.4
alpha-BHC	3.994	3.895	4.095	50.190	50.000	0.4
alpha-Chlordane	6.018	5.917	6.117	50.080	50.000	0.2
beta-BHC	4.525	4.425	4.625	49.660	50.000	-0.7
Decachlorobiphenyl	9.056	8.953	9.153	48.430	50.000	-3.1
delta-BHC	4.772	4.672	4.872	47.390	50.000	-5.2
Dieldrin	6.344	6.243	6.443	49.090	50.000	-1.8
Endosulfan I	6.069	5.967	6.167	49.170	50.000	-1.7
Endosulfan II	6.794	6.692	6.892	48.340	50.000	-3.3
Endosulfan sulfate	7.159	7.057	7.257	46.610	50.000	-6.8
Endrin	6.572	6.472	6.672	49.260	50.000	-1.5
Endrin aldehyde	6.924	6.823	7.023	46.580	50.000	-6.8
Endrin ketone	7.644	7.542	7.742	46.800	50.000	-6.4
gamma-BHC (Lindane)	4.326	4.227	4.427	49.360	50.000	-1.3
gamma-Chlordane	5.939	5.838	6.038	49.950	50.000	-0.1
Heptachlor	4.914	4.814	5.014	51.680	50.000	3.4
Heptachlor epoxide	5.683	5.582	5.782	47.960	50.000	-4.1
Methoxychlor	7.500	7.398	7.598	53.190	50.000	6.4
Tetrachloro-m-xylene	3.537	3.439	3.639	49.370	50.000	-1.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093943.D **Time Analyzed:** 15:10

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	53.890	50.000	7.8
4,4'-DDE	5.229	5.130	5.330	51.950	50.000	3.9
4,4'-DDT	6.034	5.934	6.134	53.920	50.000	7.8
Aldrin	4.224	4.125	4.325	47.070	50.000	-5.9
alpha-BHC	3.276	3.177	3.377	49.480	50.000	-1.0
alpha-Chlordane	5.040	4.940	5.140	49.320	50.000	-1.4
beta-BHC	3.906	3.807	4.007	48.590	50.000	-2.8
Decachlorobiphenyl	7.911	7.810	8.010	49.210	50.000	-1.6
delta-BHC	4.135	4.036	4.236	46.340	50.000	-7.3
Dieldrin	5.361	5.261	5.461	48.660	50.000	-2.7
Endosulfan I	5.096	4.996	5.196	45.000	50.000	-10.0
Endosulfan II	5.931	5.831	6.031	49.800	50.000	-0.4
Endosulfan sulfate	6.333	6.233	6.433	48.390	50.000	-3.2
Endrin	5.636	5.536	5.736	51.550	50.000	3.1
Endrin aldehyde	6.110	6.010	6.210	45.680	50.000	-8.6
Endrin ketone	6.839	6.739	6.939	48.250	50.000	-3.5
gamma-BHC (Lindane)	3.606	3.507	3.707	47.750	50.000	-4.5
gamma-Chlordane	4.976	4.877	5.077	50.160	50.000	0.3
Heptachlor	3.944	3.845	4.045	49.210	50.000	-1.6
Heptachlor epoxide	4.726	4.627	4.827	47.640	50.000	-4.7
Methoxychlor	6.609	6.509	6.709	52.440	50.000	4.9
Tetrachloro-m-xylene	2.773	2.674	2.874	48.600	50.000	-2.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 20:18 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.52	4.53	4.43	4.63	0.01
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 20:18 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.04	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.01

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

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093959.D **Time Analyzed:** 20:18

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	54.500	50.000	9.0
4,4'-DDE	6.192	6.091	6.291	51.300	50.000	2.6
4,4'-DDT	7.023	6.922	7.122	48.330	50.000	-3.3
Aldrin	5.256	5.156	5.356	47.800	50.000	-4.4
alpha-BHC	3.994	3.895	4.095	50.690	50.000	1.4
alpha-Chlordane	6.018	5.917	6.117	48.070	50.000	-3.9
beta-BHC	4.524	4.425	4.625	50.600	50.000	1.2
Decachlorobiphenyl	9.056	8.953	9.153	45.870	50.000	-8.3
delta-BHC	4.772	4.672	4.872	49.100	50.000	-1.8
Dieldrin	6.343	6.243	6.443	47.370	50.000	-5.3
Endosulfan I	6.068	5.967	6.167	46.980	50.000	-6.0
Endosulfan II	6.794	6.692	6.892	46.660	50.000	-6.7
Endosulfan sulfate	7.159	7.057	7.257	45.370	50.000	-9.3
Endrin	6.572	6.472	6.672	45.760	50.000	-8.5
Endrin aldehyde	6.924	6.823	7.023	45.260	50.000	-9.5
Endrin ketone	7.644	7.542	7.742	45.780	50.000	-8.4
gamma-BHC (Lindane)	4.326	4.227	4.427	49.510	50.000	-1.0
gamma-Chlordane	5.939	5.838	6.038	48.430	50.000	-3.1
Heptachlor	4.914	4.814	5.014	49.860	50.000	-0.3
Heptachlor epoxide	5.683	5.582	5.782	46.670	50.000	-6.7
Methoxychlor	7.500	7.398	7.598	47.640	50.000	-4.7
Tetrachloro-m-xylene	3.538	3.439	3.639	49.950	50.000	-0.1

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

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093959.D **Time Analyzed:** 20:18

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	53.950	50.000	7.9
4,4'-DDE	5.229	5.130	5.330	53.020	50.000	6.0
4,4'-DDT	6.035	5.934	6.134	48.230	50.000	-3.5
Aldrin	4.224	4.125	4.325	48.560	50.000	-2.9
alpha-BHC	3.276	3.177	3.377	50.850	50.000	1.7
alpha-Chlordane	5.040	4.940	5.140	50.410	50.000	0.8
beta-BHC	3.907	3.807	4.007	50.650	50.000	1.3
Decachlorobiphenyl	7.911	7.810	8.010	44.510	50.000	-11.0
delta-BHC	4.135	4.036	4.236	48.490	50.000	-3.0
Dieldrin	5.361	5.261	5.461	48.940	50.000	-2.1
Endosulfan I	5.096	4.996	5.196	45.790	50.000	-8.4
Endosulfan II	5.931	5.831	6.031	48.780	50.000	-2.4
Endosulfan sulfate	6.334	6.233	6.433	46.930	50.000	-6.1
Endrin	5.636	5.536	5.736	48.830	50.000	-2.3
Endrin aldehyde	6.111	6.010	6.210	44.850	50.000	-10.3
Endrin ketone	6.839	6.739	6.939	46.120	50.000	-7.8
gamma-BHC (Lindane)	3.606	3.507	3.707	49.220	50.000	-1.6
gamma-Chlordane	4.975	4.877	5.077	50.890	50.000	1.8
Heptachlor	3.945	3.845	4.045	49.210	50.000	-1.6
Heptachlor epoxide	4.727	4.627	4.827	49.060	50.000	-1.9
Methoxychlor	6.610	6.509	6.709	46.040	50.000	-7.9
Tetrachloro-m-xylene	2.773	2.674	2.874	50.250	50.000	0.5

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 00:57 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.35	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.80	6.79	6.69	6.89	-0.01
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.03	7.02	6.92	7.12	-0.01
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.65	7.64	7.54	7.74	0.00
Endrin aldehyde	6.93	6.92	6.82	7.02	-0.01
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 00:57 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.79	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.04	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093971.D **Time Analyzed:** 00:57

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.711	6.608	6.808	54.730	50.000	9.5
4,4'-DDE	6.192	6.091	6.291	51.870	50.000	3.7
4,4'-DDT	7.025	6.922	7.122	44.830	50.000	-10.3
Aldrin	5.257	5.156	5.356	49.150	50.000	-1.7
alpha-BHC	3.994	3.895	4.095	51.630	50.000	3.3
alpha-Chlordane	6.018	5.917	6.117	49.050	50.000	-1.9
beta-BHC	4.526	4.425	4.625	50.470	50.000	0.9
Decachlorobiphenyl	9.057	8.953	9.153	44.060	50.000	-11.9
delta-BHC	4.772	4.672	4.872	49.410	50.000	-1.2
Dieldrin	6.345	6.243	6.443	47.520	50.000	-5.0
Endosulfan I	6.069	5.967	6.167	48.060	50.000	-3.9
Endosulfan II	6.795	6.692	6.892	46.330	50.000	-7.3
Endosulfan sulfate	7.160	7.057	7.257	44.270	50.000	-11.5
Endrin	6.573	6.472	6.672	44.470	50.000	-11.1
Endrin aldehyde	6.925	6.823	7.023	44.530	50.000	-10.9
Endrin ketone	7.645	7.542	7.742	44.660	50.000	-10.7
gamma-BHC (Lindane)	4.327	4.227	4.427	50.040	50.000	0.1
gamma-Chlordane	5.940	5.838	6.038	49.550	50.000	-0.9
Heptachlor	4.915	4.814	5.014	50.120	50.000	0.2
Heptachlor epoxide	5.683	5.582	5.782	47.790	50.000	-4.4
Methoxychlor	7.500	7.398	7.598	43.640	50.000	-12.7
Tetrachloro-m-xylene	3.538	3.439	3.639	51.110	50.000	2.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093971.D **Time Analyzed:** 00:57

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.785	5.684	5.884	56.200	50.000	12.4
4,4'-DDE	5.230	5.130	5.330	54.610	50.000	9.2
4,4'-DDT	6.035	5.934	6.134	46.460	50.000	-7.1
Aldrin	4.224	4.125	4.325	50.030	50.000	0.1
alpha-BHC	3.276	3.177	3.377	53.120	50.000	6.2
alpha-Chlordane	5.041	4.940	5.140	51.720	50.000	3.4
beta-BHC	3.906	3.807	4.007	52.880	50.000	5.8
Decachlorobiphenyl	7.911	7.810	8.010	42.340	50.000	-15.3
delta-BHC	4.135	4.036	4.236	50.050	50.000	0.1
Dieldrin	5.361	5.261	5.461	50.490	50.000	1.0
Endosulfan I	5.097	4.996	5.196	45.740	50.000	-8.5
Endosulfan II	5.932	5.831	6.031	49.620	50.000	-0.8
Endosulfan sulfate	6.334	6.233	6.433	47.400	50.000	-5.2
Endrin	5.637	5.536	5.736	49.760	50.000	-0.5
Endrin aldehyde	6.111	6.010	6.210	45.370	50.000	-9.3
Endrin ketone	6.840	6.739	6.939	45.870	50.000	-8.3
gamma-BHC (Lindane)	3.606	3.507	3.707	51.100	50.000	2.2
gamma-Chlordane	4.977	4.877	5.077	52.470	50.000	4.9
Heptachlor	3.945	3.845	4.045	50.220	50.000	0.4
Heptachlor epoxide	4.727	4.627	4.827	50.070	50.000	0.1
Methoxychlor	6.611	6.509	6.709	45.230	50.000	-9.5
Tetrachloro-m-xylene	2.774	2.674	2.874	52.270	50.000	4.5

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.052	8.950	9.150	18.070	20.000	-9.7
Tetrachloro-m-xylene	3.538	3.490	3.590	18.530	20.000	-7.4
alpha-BHC	3.994	3.940	4.040	9.490	10.000	-5.1
beta-BHC	4.525	4.470	4.580	9.790	10.000	-2.1
gamma-BHC (Lindane)	4.326	4.280	4.380	9.300	10.000	-7.0
Endrin	6.572	6.500	6.640	41.270	50.000	-17.5
4,4'-DDT	7.022	6.950	7.090	82.410	100.000	-17.6
Methoxychlor	7.498	7.430	7.570	190.380	250.000	-23.8

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	17.950	20.000	-10.3
Tetrachloro-m-xylene	2.775	2.720	2.830	17.900	20.000	-10.5
alpha-BHC	3.277	3.230	3.330	8.620	10.000	-13.8
beta-BHC	3.907	3.860	3.960	9.800	10.000	-2.0
gamma-BHC (Lindane)	3.607	3.560	3.660	8.300	10.000	-17.0
Endrin	5.636	5.570	5.710	42.700	50.000	-14.6
4,4'-DDT	6.034	5.960	6.100	96.510	100.000	-3.5
Methoxychlor	6.609	6.540	6.680	209.940	250.000	-16.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093929.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:04

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.950	9.160	20.810	20.000	4.1
Tetrachloro-m-xylene	3.536	3.490	3.590	21.970	20.000	9.9
alpha-BHC	3.993	3.940	4.040	11.710	10.000	17.1
beta-BHC	4.524	4.470	4.570	11.950	10.000	19.5
gamma-BHC (Lindane)	4.325	4.270	4.380	11.550	10.000	15.5
Endrin	6.571	6.500	6.640	48.650	50.000	-2.7
4,4'-DDT	7.023	6.950	7.090	111.680	100.000	11.7
Methoxychlor	7.499	7.430	7.570	263.710	250.000	5.5

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093929.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:04

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	20.550	20.000	2.8
Tetrachloro-m-xylene	2.773	2.720	2.820	21.090	20.000	5.5
alpha-BHC	3.276	3.230	3.330	10.040	10.000	0.4
beta-BHC	3.906	3.860	3.960	10.760	10.000	7.6
gamma-BHC (Lindane)	3.606	3.560	3.660	9.410	10.000	-5.9
Endrin	5.636	5.570	5.710	52.600	50.000	5.2
4,4'-DDT	6.034	5.960	6.100	118.390	100.000	18.4
Methoxychlor	6.609	6.540	6.680	266.850	250.000	6.7

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093958.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 19:39

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	20.910	20.000	4.6
Tetrachloro-m-xylene	3.537	3.490	3.590	23.840	20.000	19.2
alpha-BHC	3.993	3.940	4.040	12.420	10.000	24.2
beta-BHC	4.525	4.470	4.580	12.480	10.000	24.8
gamma-BHC (Lindane)	4.326	4.280	4.380	11.910	10.000	19.1
Endrin	6.572	6.500	6.640	47.160	50.000	-5.7
4,4'-DDT	7.024	6.950	7.090	98.200	100.000	-1.8
Methoxychlor	7.501	7.430	7.570	231.470	250.000	-7.4

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093958.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 19:39

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.911	7.810	8.010	18.550	20.000	-7.3
Tetrachloro-m-xylene	2.774	2.720	2.820	22.890	20.000	14.5
alpha-BHC	3.276	3.230	3.330	10.850	10.000	8.5
beta-BHC	3.907	3.860	3.960	12.090	10.000	20.9
gamma-BHC (Lindane)	3.606	3.560	3.660	10.490	10.000	4.9
Endrin	5.637	5.570	5.710	50.900	50.000	1.8
4,4'-DDT	6.034	5.960	6.100	108.940	100.000	8.9
Methoxychlor	6.611	6.540	6.680	235.360	250.000	-5.9

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	9.05	3.54
PEM	PEM	01/21/2025	10:30	PL093726.D	9.05	3.54
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	9.05	3.54
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	9.05	3.54
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	9.05	3.54
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	9.05	3.54
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	9.05	3.54
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	9.05	3.54
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	9.05	3.54
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	9.05	3.54
I.BLK	I.BLK	01/31/2025	10:51	PL093928.D	9.05	3.54
PEM	PEM	01/31/2025	11:04	PL093929.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/31/2025	11:17	PL093930.D	9.06	3.54
PB166413BL	PB166413BL	01/31/2025	14:28	PL093940.D	9.06	3.54
PB166413BS	PB166413BS	01/31/2025	14:43	PL093941.D	9.06	3.54
I.BLK	I.BLK	01/31/2025	14:57	PL093942.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/31/2025	15:10	PL093943.D	9.06	3.54
JPP-46.2-012925	Q1232-03	01/31/2025	17:01	PL093946.D	9.06	3.54
JPP-46.1-012925	Q1232-07	01/31/2025	17:14	PL093947.D	9.06	3.54
JPP-42.1-012925	Q1232-11	01/31/2025	17:27	PL093948.D	9.05	3.54
JPP-42.2-012925	Q1232-15	01/31/2025	17:40	PL093949.D	9.06	3.54
JPP-51.1-012925	Q1232-19	01/31/2025	17:53	PL093950.D	9.06	3.54
I.BLK	I.BLK	01/31/2025	19:26	PL093957.D	9.06	3.54
PEM	PEM	01/31/2025	19:39	PL093958.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/31/2025	20:18	PL093959.D	9.06	3.54
357MS	Q1239-10MS	01/31/2025	20:31	PL093960.D	9.06	3.54
357MSD	Q1239-10MSD	01/31/2025	20:45	PL093961.D	9.06	3.54
I.BLK	I.BLK	01/31/2025	22:43	PL093970.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/01/2025	00:57	PL093971.D	9.06	3.54

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	7.91	2.78
PEM	PEM	01/21/2025	10:30	PL093726.D	7.91	2.78
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	7.91	2.77
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	7.91	2.78
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	7.91	2.77
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	7.91	2.77
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	7.91	2.77
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	7.91	2.77
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	7.91	2.77
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	10:51	PL093928.D	7.91	2.77
PEM	PEM	01/31/2025	11:04	PL093929.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/31/2025	11:17	PL093930.D	7.91	2.77
PB166413BL	PB166413BL	01/31/2025	14:28	PL093940.D	7.91	2.77
PB166413BS	PB166413BS	01/31/2025	14:43	PL093941.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	14:57	PL093942.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/31/2025	15:10	PL093943.D	7.91	2.77
JPP-46.2-012925	Q1232-03	01/31/2025	17:01	PL093946.D	7.91	2.77
JPP-46.1-012925	Q1232-07	01/31/2025	17:14	PL093947.D	7.91	2.77
JPP-42.1-012925	Q1232-11	01/31/2025	17:27	PL093948.D	7.91	2.77
JPP-42.2-012925	Q1232-15	01/31/2025	17:40	PL093949.D	7.91	2.77
JPP-51.1-012925	Q1232-19	01/31/2025	17:53	PL093950.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	19:26	PL093957.D	7.91	2.77
PEM	PEM	01/31/2025	19:39	PL093958.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/31/2025	20:18	PL093959.D	7.91	2.77
357MS	Q1239-10MS	01/31/2025	20:31	PL093960.D	7.91	2.77
357MSD	Q1239-10MSD	01/31/2025	20:45	PL093961.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	22:43	PL093970.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/01/2025	00:57	PL093971.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1239-10MS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	18.7	4.2
	2	5.93	5.88	5.98	19.5	
4,4'-DDD	1	6.71	6.66	6.76	22.0	2.8
	2	5.79	5.74	5.84	21.4	
4,4'-DDT	1	7.02	6.97	7.07	18.9	0.5
	2	6.04	5.99	6.09	18.8	
Endrin aldehyde	1	6.92	6.87	6.97	13.7	3.7
	2	6.11	6.06	6.16	13.2	
Endosulfan sulfate	1	7.16	7.11	7.21	18.2	1.1
	2	6.33	6.28	6.38	18.4	
Methoxychlor	1	7.50	7.45	7.55	17.4	0.6
	2	6.61	6.56	6.66	17.5	
Endrin ketone	1	7.65	7.60	7.70	17.5	0
	2	6.84	6.79	6.89	17.5	
alpha-BHC	1	3.99	3.94	4.04	19.6	2.1
	2	3.28	3.23	3.33	19.2	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	19.2	1.6
	2	3.61	3.56	3.66	18.9	
Heptachlor	1	4.92	4.87	4.97	19.1	3.7
	2	3.95	3.90	4.00	18.4	
Aldrin	1	5.26	5.21	5.31	19.3	0
	2	4.22	4.17	4.27	19.3	
beta-BHC	1	4.53	4.48	4.58	19.8	0.5
	2	3.91	3.86	3.96	19.9	
delta-BHC	1	4.77	4.72	4.82	19.1	1.1
	2	4.14	4.09	4.19	18.9	
Heptachlor epoxide	1	5.68	5.63	5.73	18.6	7.3
	2	4.73	4.68	4.78	20.0	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1239-10MS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	6.07	6.02	6.12	19.0	0.5
	2	5.10	5.05	5.15	18.9	
gamma-Chlordane	1	5.94	5.89	5.99	20.2	3.9
	2	4.98	4.93	5.03	21.0	
alpha-Chlordane	1	6.02	5.97	6.07	19.8	3
	2	5.04	4.99	5.09	20.4	
4,4'-DDE	1	6.19	6.14	6.24	19.9	7.3
	2	5.23	5.18	5.28	21.4	
Dieldrin	1	6.35	6.30	6.40	19.2	6.5
	2	5.36	5.31	5.41	20.5	
Endrin	1	6.57	6.52	6.62	18.6	8.2
	2	5.64	5.59	5.69	20.2	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1239-10MSD **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	19.2	4.6
	2	5.93	5.88	5.98	20.1	
4,4'-DDD	1	6.71	6.66	6.76	22.2	2.7
	2	5.78	5.73	5.83	21.6	
alpha-Chlordane	1	6.02	5.97	6.07	20.0	3
	2	5.04	4.99	5.09	20.6	
4,4'-DDE	1	6.19	6.14	6.24	20.0	6.8
	2	5.23	5.18	5.28	21.4	
Dieldrin	1	6.34	6.29	6.39	19.2	7
	2	5.36	5.31	5.41	20.6	
Endrin	1	6.57	6.52	6.62	19.0	9.5
	2	5.64	5.59	5.69	20.9	
4,4'-DDT	1	7.02	6.97	7.07	20.5	0.5
	2	6.03	5.98	6.08	20.4	
Endrin aldehyde	1	6.92	6.87	6.97	18.7	0
	2	6.11	6.06	6.16	18.7	
Endosulfan sulfate	1	7.16	7.11	7.21	18.9	4.1
	2	6.33	6.28	6.38	19.7	
Methoxychlor	1	7.50	7.45	7.55	19.8	1
	2	6.61	6.56	6.66	19.6	
Endrin ketone	1	7.64	7.59	7.69	18.8	0
	2	6.84	6.79	6.89	18.8	
alpha-BHC	1	3.99	3.94	4.04	19.8	2
	2	3.28	3.23	3.33	19.4	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	19.4	1
	2	3.61	3.56	3.66	19.2	
Heptachlor	1	4.91	4.86	4.96	20.3	3.5
	2	3.94	3.89	3.99	19.6	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1239-10MSD **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Aldrin	1	5.26	5.21	5.31	19.5	1
	2	4.22	4.17	4.27	19.3	
beta-BHC	1	4.53	4.48	4.58	20.1	0.5
	2	3.91	3.86	3.96	20.0	
delta-BHC	1	4.77	4.72	4.82	20.0	3
	2	4.13	4.08	4.18	19.4	
Heptachlor epoxide	1	5.68	5.63	5.73	18.9	5.7
	2	4.73	4.68	4.78	20.0	
Endosulfan I	1	6.07	6.02	6.12	19.5	1
	2	5.10	5.05	5.15	19.3	
gamma-Chlordane	1	5.94	5.89	5.99	20.1	3.9
	2	4.98	4.93	5.03	20.9	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-42.1-012925

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1232-11 **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDT	1	7.02	6.97	7.07	0.35	103.3
	2	6.03	5.98	6.08	1.10	
alpha-Chlordane	1	6.02	5.97	6.07	1.10	70.9
	2	5.04	4.99	5.09	0.52	
Endrin	1	6.57	6.52	6.62	0.22	11.4
	2	5.64	5.59	5.69	0.25	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-42.2-012925

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1232-15 **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDT	1	7.02	6.97	7.07	0.56	64.4
	2	6.03	5.98	6.08	1.10	
Heptachlor	1	4.91	4.86	4.96	0.73	55.4
	2	3.94	3.89	3.99	0.41	
gamma-Chlordane	1	5.94	5.89	5.99	1.20	110.4
	2	4.98	4.93	5.03	0.35	
alpha-Chlordane	1	6.02	5.97	6.07	2.30	86
	2	5.04	4.99	5.09	0.92	
Endrin	1	6.57	6.52	6.62	0.19	3.7
	2	5.64	5.59	5.69	0.20	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-46.1-012925

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1232-07 **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDT	1	7.02	6.97	7.07	0.29	138.5
	2	6.03	5.98	6.08	1.60	
alpha-Chlordane	1	6.02	5.97	6.07	1.20	58.2
	2	5.04	4.99	5.09	0.66	
4,4'-DDE	1	6.18	6.13	6.23	0.43	12.2
	2	5.23	5.18	5.28	0.38	
Endrin	1	6.57	6.52	6.62	0.60	69.8
	2	5.64	5.59	5.69	0.29	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-46.2-012925

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1232-03 **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	0.90	105.6
	2	5.94	5.89	5.99	2.90	
4,4'-DDD	1	6.71	6.66	6.76	2.80	80
	2	5.77	5.72	5.82	1.20	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-51.1-012925

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1232-19 **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDT	1	7.02	6.97	7.07	1.00	66.7
	2	6.03	5.98	6.08	2.00	
Heptachlor	1	4.91	4.86	4.96	0.44	34.8
	2	3.94	3.89	3.99	0.31	
Heptachlor epoxide	1	5.68	5.63	5.73	0.37	71.6
	2	4.73	4.68	4.78	0.78	
alpha-Chlordane	1	6.02	5.97	6.07	2.90	69.8
	2	5.04	4.99	5.09	1.40	
Endrin	1	6.57	6.52	6.62	0.33	39.3
	2	5.64	5.59	5.69	0.49	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166413BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: PB166413BS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDD	1	6.71	6.66	6.76	17.0	0.6
	2	5.79	5.74	5.84	17.1	
4,4'-DDT	1	7.03	6.98	7.08	17.5	0
	2	6.04	5.99	6.09	17.5	
Aldrin	1	5.26	5.21	5.31	15.0	3.4
	2	4.23	4.18	4.28	14.5	
4,4'-DDE	1	6.19	6.14	6.24	16.5	0.6
	2	5.23	5.18	5.28	16.4	
Endosulfan II	1	6.80	6.75	6.85	15.5	4.4
	2	5.93	5.88	5.98	16.2	
Endrin aldehyde	1	6.93	6.88	6.98	15.0	2
	2	6.11	6.06	6.16	15.3	
Endosulfan sulfate	1	7.16	7.11	7.21	15.1	7
	2	6.33	6.28	6.38	16.2	
Methoxychlor	1	7.50	7.45	7.55	16.6	3.6
	2	6.61	6.56	6.66	17.2	
Endrin ketone	1	7.65	7.60	7.70	15.2	3.2
	2	6.84	6.79	6.89	15.7	
alpha-BHC	1	4.00	3.95	4.05	14.9	2
	2	3.28	3.23	3.33	14.6	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	14.8	3.4
	2	3.61	3.56	3.66	14.3	
Heptachlor	1	4.92	4.87	4.97	16.0	4.5
	2	3.95	3.90	4.00	15.3	
beta-BHC	1	4.53	4.48	4.58	15.0	0.7
	2	3.91	3.86	3.96	15.1	
delta-BHC	1	4.78	4.73	4.83	15.1	4.1
	2	4.14	4.09	4.19	14.5	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166413BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: PB166413BS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Heptachlor epoxide	1	5.69	5.64	5.74	14.8	3.3
	2	4.73	4.68	4.78	15.3	
Endosulfan I	1	6.07	6.02	6.12	15.4	2
	2	5.10	5.05	5.15	15.1	
gamma-Chlordane	1	5.94	5.89	5.99	15.4	1.9
	2	4.98	4.93	5.03	15.7	
alpha-Chlordane	1	6.02	5.97	6.07	15.6	0.6
	2	5.04	4.99	5.09	15.7	
Dieldrin	1	6.35	6.30	6.40	15.4	0.6
	2	5.36	5.31	5.41	15.5	
Endrin	1	6.58	6.53	6.63	15.7	6.8
	2	5.64	5.59	5.69	16.8	

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	

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LAB CHRONICLE

Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: **0.000**

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PB166356TB	SDG No.:	Q1232
Lab Sample ID:	PB166356TB	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093986.D	1	01/31/25 11:15	02/03/25 13:48	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.1		43 - 140	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.0		77 - 126	105%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-04	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094002.D	1	01/31/25 11:15	02/03/25 18:03	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25.1		43 - 140	125%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.4		77 - 126	117%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
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P = Indicates >25% difference for detected concentrations between the two GC columns
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M = MS/MSD acceptance criteria did not meet requirements

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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-08	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094003.D	1	01/31/25 11:15	02/03/25 18:16	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.5		43 - 140	122%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.6		77 - 126	113%	SPK: 20

Comments:

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LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-12	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094004.D	1	01/31/25 11:15	02/03/25 18:29	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	26.5		43 - 140	132%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.4		77 - 126	117%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-16	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094005.D	1	01/31/25 11:15	02/03/25 18:43	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25.6		43 - 140	128%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.3		77 - 126	107%	SPK: 20

Comments:

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MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-20	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094006.D	1	01/31/25 11:15	02/03/25 18:56	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25.3		43 - 140	127%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.0		77 - 126	110%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093725.D	PIBLK-PL093725.D	Decachlorobiphenyl	1	20	22.1	111		43	140
		Tetrachloro-m-xylene	1	20	20.8	104		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
I.BLK-PL093980.D	PIBLK-PL093980.D	Decachlorobiphenyl	1	20	21.6	108		43	140
		Tetrachloro-m-xylene	1	20	22.2	111		77	126
		Decachlorobiphenyl	2	20	20.2	101		43	140
		Tetrachloro-m-xylene	2	20	21.8	109		77	126
PB166427BL	PB166427BL	Decachlorobiphenyl	1	20	21.1	106		43	140
		Tetrachloro-m-xylene	1	20	19.0	95		77	126
		Decachlorobiphenyl	2	20	14.5	73		43	140
		Tetrachloro-m-xylene	2	20	17.5	87		77	126
PB166427BS	PB166427BS	Decachlorobiphenyl	1	20	23.4	117		43	140
		Tetrachloro-m-xylene	1	20	23.7	119		77	126
		Decachlorobiphenyl	2	20	20.9	105		43	140
		Tetrachloro-m-xylene	2	20	23.0	115		77	126
PB166356TB	PB166356TB	Decachlorobiphenyl	1	20	20.1	101		43	140
		Tetrachloro-m-xylene	1	20	21.0	105		77	126
		Decachlorobiphenyl	2	20	18.6	93		43	140
		Tetrachloro-m-xylene	2	20	19.5	98		77	126
Q1215-04MS	JPP-29.1-012825MS	Decachlorobiphenyl	1	20	22.9	115		43	140
		Tetrachloro-m-xylene	1	20	20.0	100		77	126
		Decachlorobiphenyl	2	20	20.6	103		43	140
		Tetrachloro-m-xylene	2	20	19.2	96		77	126
Q1215-04MSD	JPP-29.1-012825MSD	Decachlorobiphenyl	1	20	22.9	114		43	140
		Tetrachloro-m-xylene	1	20	20.6	103		77	126
		Decachlorobiphenyl	2	20	21.7	108		43	140
		Tetrachloro-m-xylene	2	20	20.1	100		77	126
I.BLK-PL093999.D	PIBLK-PL093999.D	Decachlorobiphenyl	1	20	28.1	140		43	140
		Tetrachloro-m-xylene	1	20	21.1	106		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	102		77	126
Q1232-04	JPP-46.2-012925	Decachlorobiphenyl	1	20	25.1	125		43	140
		Tetrachloro-m-xylene	1	20	23.4	117		77	126
		Decachlorobiphenyl	2	20	25.0	125		43	140
		Tetrachloro-m-xylene	2	20	22.6	113		77	126
Q1232-08	JPP-46.1-012925	Decachlorobiphenyl	1	20	24.5	122		43	140
		Tetrachloro-m-xylene	1	20	22.6	113		77	126
		Decachlorobiphenyl	2	20	24.4	122		43	140
		Tetrachloro-m-xylene	2	20	22.2	111		77	126
Q1232-12	JPP-42.1-012925	Decachlorobiphenyl	1	20	25.8	129		43	140

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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1232-12	JPP-42.1-012925	Tetrachloro-m-xylene	1	20	23.4	117		77	126
		Decachlorobiphenyl	2	20	26.5	132		43	140
		Tetrachloro-m-xylene	2	20	23.0	115		77	126
Q1232-16	JPP-42.2-012925	Decachlorobiphenyl	1	20	24.9	124		43	140
		Tetrachloro-m-xylene	1	20	21.3	107		77	126
		Decachlorobiphenyl	2	20	25.6	128		43	140
		Tetrachloro-m-xylene	2	20	20.7	103		77	126
Q1232-20	JPP-51.1-012925	Decachlorobiphenyl	1	20	24.1	121		43	140
		Tetrachloro-m-xylene	1	20	22.0	110		77	126
		Decachlorobiphenyl	2	20	25.3	127		43	140
		Tetrachloro-m-xylene	2	20	21.8	109		77	126
I.BLK-PL094020.D	PIBLK-PL094020.D	Decachlorobiphenyl	1	20	22.8	114		43	140
		Tetrachloro-m-xylene	1	20	21.6	108		77	126
		Decachlorobiphenyl	2	20	24.3	121		43	140
		Tetrachloro-m-xylene	2	20	21.1	106		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093988.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**JPP-29.1-012825MS**											
Q1215-04MS	gamma-BHC (Lindane)	5	0	4.90	ug/L	98				60	152	
	Heptachlor	5	0	5.20	ug/L	104				56	147	
	Heptachlor epoxide	5	0	4.90	ug/L	98				77	143	
	Endrin	5	0	5.30	ug/L	106				76	144	
	Methoxychlor	5	0	5.60	ug/L	112				70	142	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093989.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-29.1-012825MSD**											
Q1215-04MSD	gamma-BHC (Lindane)	5	0	5.10	ug/L	102		4		60	152	20
	Heptachlor	5	0	5.40	ug/L	108		4		56	147	20
	Heptachlor epoxide	5	0	5.20	ug/L	104		6		77	143	20
	Endrin	5	0	5.40	ug/L	108		2		76	144	20
	Methoxychlor	5	0	5.60	ug/L	112		0		70	142	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL093985.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166427BS	gamma-BHC (Lindane)	0.5	0.45	ug/L	90				82	129	
	Heptachlor	0.5	0.48	ug/L	97				79	127	
	Heptachlor epoxide	0.5	0.46	ug/L	92				81	124	
	Endrin	0.5	0.48	ug/L	95				81	128	
	Methoxychlor	0.5	0.50	ug/L	100				78	108	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166427BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab Sample ID: PB166427BL Lab File ID: PL093984.D

Matrix: (soil/water) water Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 01/31/2025

Date Analyzed (1): 02/03/2025 Date Analyzed (2): 02/03/2025

Time Analyzed (1): 12:53 Time Analyzed (2): 12:53

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166427BS	PB166427BS	PL093985.D	02/03/2025	02/03/2025
PB166356TB	PB166356TB	PL093986.D	02/03/2025	02/03/2025
JPP-29.1-012825MS	Q1215-04MS	PL093988.D	02/03/2025	02/03/2025
JPP-29.1-012825MSD	Q1215-04MSD	PL093989.D	02/03/2025	02/03/2025
JPP-46.2-012925	Q1232-04	PL094002.D	02/03/2025	02/03/2025
JPP-46.1-012925	Q1232-08	PL094003.D	02/03/2025	02/03/2025
JPP-42.1-012925	Q1232-12	PL094004.D	02/03/2025	02/03/2025
JPP-42.2-012925	Q1232-16	PL094005.D	02/03/2025	02/03/2025
JPP-51.1-012925	Q1232-20	PL094006.D	02/03/2025	02/03/2025

COMMENTS:

QC SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166427BL	SDG No.:	Q1232
Lab Sample ID:	PB166427BL	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093984.D	1	01/31/25 11:15	02/03/25 12:53	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.1		43 - 140	106%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.0		77 - 126	95%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.1		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		77 - 126	104%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093980.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093980.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093980.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.6		43 - 140	108%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.2		77 - 126	111%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093999.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL093999.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093999.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	28.1		43 - 140	140%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		77 - 126	106%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL094020.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PL094020.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094020.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.3		43 - 140	121%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		77 - 126	108%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166427BS	SDG No.:	Q1232
Lab Sample ID:	PB166427BS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093985.D	1	01/31/25 11:15	02/03/25 13:26	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.45		0.0049	0.050	ug/L
76-44-8	Heptachlor	0.48		0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.46		0.0090	0.050	ug/L
72-20-8	Endrin	0.48		0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.50		0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.4		43 - 140	117%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.7		77 - 126	119%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MS	SDG No.:	Q1232
Lab Sample ID:	Q1215-04MS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093988.D	1	01/31/25 11:15	02/03/25 14:24	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	4.90		0.049	0.50	ug/L
76-44-8	Heptachlor	5.20		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	4.90		0.090	0.50	ug/L
72-20-8	Endrin	5.30		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.60		0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.9		43 - 140	115%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.0		77 - 126	100%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1232
Lab Sample ID:	Q1215-04MSD	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093989.D	1	01/31/25 11:15	02/03/25 14:37	PB166427

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.10		0.049	0.50	ug/L
76-44-8	Heptachlor	5.40		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.20		0.090	0.50	ug/L
72-20-8	Endrin	5.40		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.60		0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.9		43 - 140	114%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.6		77 - 126	103%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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

RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
Heptachlor	4.92	4.92	4.91	4.91	4.91	4.91	4.81	5.01
Heptachlor epoxide	5.68	5.68	5.68	5.68	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
Heptachlor	3.95	3.95	3.95	3.95	3.94	3.94	3.84	4.04
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.77	2.77	2.77	2.77	2.77	2.67	2.87

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	1768480000	1816480000	2098320000	2018470000	2757820000	2091910000	19
Endrin	2079430000	2060990000	2363220000	2218560000	3001890000	2344820000	17
gamma-BHC (Lindane)	3375960000	3339350000	3767250000	3460830000	4470850000	3682850000	13
Heptachlor	2922500000	2901690000	3325290000	3144100000	4093120000	3277340000	15
Heptachlor epoxide	2568680000	2575960000	2953630000	2835830000	3935020000	2973820000	19
Methoxychlor	907284000	922109000	1080370000	1020090000	1287130000	1043400000	15
Tetrachloro-m-xylene	2397870000	2402980000	2740040000	2595500000	3327420000	2692760000	14

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Fax : 908 789 8922

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	3226690000	3193800000	3627020000	3320620000	4152210000	3504070000	11
Endrin	3607760000	3481170000	3870730000	3406140000	4097610000	3692680000	8
gamma-BHC (Lindane)	4713370000	4597010000	5084610000	4384810000	4926270000	4741210000	6
Heptachlor	4505180000	4413750000	4924840000	4345980000	5084220000	4654790000	7
Heptachlor epoxide	4026840000	3946880000	4424170000	3927960000	4575440000	4180260000	7
Methoxychlor	1651870000	1634200000	1870410000	1643810000	2140390000	1788140000	12
Tetrachloro-m-xylene	3101220000	3058550000	3437230000	3066200000	3657590000	3264160000	8

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	4.70	4.60	4.80	110671000
		2	5.23	5.13	5.33	111822000
		3	5.94	5.84	6.04	367564000
		4	6.02	5.92	6.12	441167000
		5	6.87	6.77	6.97	84311800
Toxaphene	500	1	6.24	6.14	6.34	23446000
		2	6.44	6.34	6.54	14767200
		3	7.06	6.96	7.16	75896000
		4	7.15	7.05	7.25	57345100
		5	7.93	7.83	8.03	43067100

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	3.77	3.67	3.87	122213000
		2	4.35	4.25	4.45	140610000
		3	4.98	4.88	5.08	427882000
		4	5.04	4.94	5.14	412254000
		5	5.94	5.84	6.04	148711000
Toxaphene	500	1	5.00	4.90	5.10	27057100
		2	5.33	5.23	5.43	23947200
		3	5.68	5.58	5.78	24726400
		4	6.60	6.50	6.70	84987200
		5	7.04	6.94	7.14	80238300

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 12:17 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.69	5.68	5.58	5.78	-0.01
Endrin	6.58	6.57	6.47	6.67	-0.01
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 12:17 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.00
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093982.D **Time Analyzed:** 12:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.061	8.953	9.153	48.630	50.000	-2.7
Endrin	6.577	6.472	6.672	51.580	50.000	3.2
gamma-BHC (Lindane)	4.333	4.227	4.427	55.370	50.000	10.7
Heptachlor	4.921	4.814	5.014	55.190	50.000	10.4
Heptachlor epoxide	5.688	5.582	5.782	48.040	50.000	-3.9
Methoxychlor	7.503	7.398	7.598	57.600	50.000	15.2
Tetrachloro-m-xylene	3.544	3.439	3.639	54.550	50.000	9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093982.D **Time Analyzed:** 12:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.913	7.810	8.010	46.730	50.000	-6.5
Endrin	5.638	5.536	5.736	52.920	50.000	5.8
gamma-BHC (Lindane)	3.608	3.507	3.707	52.550	50.000	5.1
Heptachlor	3.946	3.845	4.045	53.790	50.000	7.6
Heptachlor epoxide	4.728	4.627	4.827	53.570	50.000	7.1
Methoxychlor	6.612	6.509	6.709	55.210	50.000	10.4
Tetrachloro-m-xylene	2.774	2.674	2.874	54.490	50.000	9.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 17:50 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.58	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 17:50 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094001.D **Time Analyzed:** 17:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.953	9.153	50.120	50.000	0.2
Endrin	6.575	6.472	6.672	53.310	50.000	6.6
gamma-BHC (Lindane)	4.328	4.227	4.427	53.780	50.000	7.6
Heptachlor	4.916	4.814	5.014	54.610	50.000	9.2
Heptachlor epoxide	5.684	5.582	5.782	51.770	50.000	3.5
Methoxychlor	7.501	7.398	7.598	56.300	50.000	12.6
Tetrachloro-m-xylene	3.540	3.439	3.639	52.880	50.000	5.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094001.D **Time Analyzed:** 17:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	52.420	50.000	4.8
Endrin	5.636	5.536	5.736	55.090	50.000	10.2
gamma-BHC (Lindane)	3.606	3.507	3.707	53.550	50.000	7.1
Heptachlor	3.944	3.845	4.045	53.700	50.000	7.4
Heptachlor epoxide	4.727	4.627	4.827	54.320	50.000	8.6
Methoxychlor	6.609	6.509	6.709	58.410	50.000	16.8
Tetrachloro-m-xylene	2.773	2.674	2.874	53.550	50.000	7.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 22:41 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 22:41 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094022.D **Time Analyzed:** 22:41

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.953	9.153	48.960	50.000	-2.1
Endrin	6.572	6.472	6.672	50.650	50.000	1.3
gamma-BHC (Lindane)	4.327	4.227	4.427	51.980	50.000	4.0
Heptachlor	4.915	4.814	5.014	51.640	50.000	3.3
Heptachlor epoxide	5.683	5.582	5.782	50.990	50.000	2.0
Methoxychlor	7.500	7.398	7.598	53.980	50.000	8.0
Tetrachloro-m-xylene	3.538	3.439	3.639	51.210	50.000	2.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094022.D **Time Analyzed:** 22:41

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	53.520	50.000	7.0
Endrin	5.636	5.536	5.736	56.890	50.000	13.8
gamma-BHC (Lindane)	3.607	3.507	3.707	52.380	50.000	4.8
Heptachlor	3.945	3.845	4.045	51.290	50.000	2.6
Heptachlor epoxide	4.727	4.627	4.827	52.980	50.000	6.0
Methoxychlor	6.610	6.509	6.709	56.660	50.000	13.3
Tetrachloro-m-xylene	2.774	2.674	2.874	51.590	50.000	3.2

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.052	8.950	9.150	18.070	20.000	-9.7
Tetrachloro-m-xylene	3.538	3.490	3.590	18.530	20.000	-7.4
alpha-BHC	3.994	3.940	4.040	9.490	10.000	-5.1
beta-BHC	4.525	4.470	4.580	9.790	10.000	-2.1
gamma-BHC (Lindane)	4.326	4.280	4.380	9.300	10.000	-7.0
Endrin	6.572	6.500	6.640	41.270	50.000	-17.5
4,4'-DDT	7.022	6.950	7.090	82.410	100.000	-17.6
Methoxychlor	7.498	7.430	7.570	190.380	250.000	-23.8

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	17.950	20.000	-10.3
Tetrachloro-m-xylene	2.775	2.720	2.830	17.900	20.000	-10.5
alpha-BHC	3.277	3.230	3.330	8.620	10.000	-13.8
beta-BHC	3.907	3.860	3.960	9.800	10.000	-2.0
gamma-BHC (Lindane)	3.607	3.560	3.660	8.300	10.000	-17.0
Endrin	5.636	5.570	5.710	42.700	50.000	-14.6
4,4'-DDT	6.034	5.960	6.100	96.510	100.000	-3.5
Methoxychlor	6.609	6.540	6.680	209.940	250.000	-16.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093981.D **Date Analyzed:** 02/03/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:03

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	14.510	20.000	-27.5
Tetrachloro-m-xylene	3.540	3.490	3.590	18.660	20.000	-6.7
alpha-BHC	3.996	3.950	4.050	9.460	10.000	-5.4
beta-BHC	4.527	4.480	4.580	9.070	10.000	-9.3
gamma-BHC (Lindane)	4.329	4.280	4.380	9.100	10.000	-9.0
Endrin	6.574	6.500	6.640	37.910	50.000	-24.2
4,4'-DDT	7.025	6.950	7.100	80.590	100.000	-19.4
Methoxychlor	7.502	7.430	7.570	195.740	250.000	-21.7

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093981.D **Date Analyzed:** 02/03/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:03

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.911	7.810	8.010	14.500	20.000	-27.5
Tetrachloro-m-xylene	2.775	2.720	2.830	18.090	20.000	-9.6
alpha-BHC	3.277	3.230	3.330	8.770	10.000	-12.3
beta-BHC	3.908	3.860	3.960	9.580	10.000	-4.2
gamma-BHC (Lindane)	3.607	3.560	3.660	7.660	10.000	-23.4
Endrin	5.638	5.570	5.710	37.350	50.000	-25.3
4,4'-DDT	6.035	5.960	6.110	88.620	100.000	-11.4
Methoxychlor	6.610	6.540	6.680	208.200	250.000	-16.7

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	9.05	3.54
PEM	PEM	01/21/2025	10:30	PL093726.D	9.05	3.54
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	9.05	3.54
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	9.05	3.54
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	9.05	3.54
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	9.05	3.54
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	9.05	3.54
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	9.05	3.54
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	9.05	3.54
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	9.05	3.54
I.BLK	I.BLK	02/03/2025	09:14	PL093980.D	9.06	3.54
PEM	PEM	02/03/2025	11:03	PL093981.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	12:17	PL093982.D	9.06	3.54
PB166427BL	PB166427BL	02/03/2025	12:53	PL093984.D	9.06	3.54
PB166427BS	PB166427BS	02/03/2025	13:26	PL093985.D	9.06	3.54
PB166356TB	PB166356TB	02/03/2025	13:48	PL093986.D	9.06	3.55
JPP-29.1-012825MS	Q1215-04MS	02/03/2025	14:24	PL093988.D	9.06	3.55
JPP-29.1-012825MSD	Q1215-04MSD	02/03/2025	14:37	PL093989.D	9.06	3.54
I.BLK	I.BLK	02/03/2025	16:55	PL093999.D	9.05	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	17:50	PL094001.D	9.06	3.54
JPP-46.2-012925	Q1232-04	02/03/2025	18:03	PL094002.D	9.06	3.54
JPP-46.1-012925	Q1232-08	02/03/2025	18:16	PL094003.D	9.05	3.54
JPP-42.1-012925	Q1232-12	02/03/2025	18:29	PL094004.D	9.06	3.54
JPP-42.2-012925	Q1232-16	02/03/2025	18:43	PL094005.D	9.06	3.54
JPP-51.1-012925	Q1232-20	02/03/2025	18:56	PL094006.D	9.06	3.54
I.BLK	I.BLK	02/03/2025	22:02	PL094020.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	22:41	PL094022.D	9.06	3.54

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	7.91	2.78
PEM	PEM	01/21/2025	10:30	PL093726.D	7.91	2.78
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	7.91	2.77
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	7.91	2.78
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	7.91	2.77
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	7.91	2.77
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	7.91	2.77
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	7.91	2.77
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	7.91	2.77
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	7.91	2.77
I.BLK	I.BLK	02/03/2025	09:14	PL093980.D	7.91	2.78
PEM	PEM	02/03/2025	11:03	PL093981.D	7.91	2.78
PSTDCCC050	PSTDCCC050	02/03/2025	12:17	PL093982.D	7.91	2.77
PB166427BL	PB166427BL	02/03/2025	12:53	PL093984.D	7.91	2.78
PB166427BS	PB166427BS	02/03/2025	13:26	PL093985.D	7.91	2.78
PB166356TB	PB166356TB	02/03/2025	13:48	PL093986.D	7.91	2.77
JPP-29.1-012825MS	Q1215-04MS	02/03/2025	14:24	PL093988.D	7.91	2.78
JPP-29.1-012825MSD	Q1215-04MSD	02/03/2025	14:37	PL093989.D	7.91	2.78
I.BLK	I.BLK	02/03/2025	16:55	PL093999.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/03/2025	17:50	PL094001.D	7.91	2.77
JPP-46.2-012925	Q1232-04	02/03/2025	18:03	PL094002.D	7.91	2.77
JPP-46.1-012925	Q1232-08	02/03/2025	18:16	PL094003.D	7.91	2.77
JPP-42.1-012925	Q1232-12	02/03/2025	18:29	PL094004.D	7.91	2.77
JPP-42.2-012925	Q1232-16	02/03/2025	18:43	PL094005.D	7.91	2.77
JPP-51.1-012925	Q1232-20	02/03/2025	18:56	PL094006.D	7.91	2.78
I.BLK	I.BLK	02/03/2025	22:02	PL094020.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/03/2025	22:41	PL094022.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1215-04MS **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.51	7.46	7.56	5.00	11.3
	2	6.61	6.56	6.66	5.60	
gamma-BHC (Lindane)	1	4.34	4.29	4.39	4.90	4.2
	2	3.61	3.56	3.66	4.70	
Heptachlor	1	4.92	4.87	4.97	5.20	5.9
	2	3.95	3.90	4.00	4.90	
Heptachlor epoxide	1	5.69	5.64	5.74	4.50	8.5
	2	4.73	4.68	4.78	4.90	
Endrin	1	6.58	6.53	6.63	4.50	16.3
	2	5.64	5.59	5.69	5.30	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1215-04MSD **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	5.40	3.6
	2	6.61	6.56	6.66	5.60	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.10	2
	2	3.61	3.56	3.66	5.00	
Heptachlor	1	4.92	4.87	4.97	5.40	3.8
	2	3.95	3.90	4.00	5.20	
Heptachlor epoxide	1	5.68	5.63	5.73	5.00	3.9
	2	4.73	4.68	4.78	5.20	
Endrin	1	6.57	6.52	6.62	5.30	1.9
	2	5.64	5.59	5.69	5.40	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166427BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: PB166427BS **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.51	7.46	7.56	0.49	1.5
	2	6.61	6.56	6.66	0.50	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	0.45	3.1
	2	3.61	3.56	3.66	0.44	
Heptachlor	1	4.92	4.87	4.97	0.48	4
	2	3.95	3.90	4.00	0.46	
Heptachlor epoxide	1	5.69	5.64	5.74	0.41	10.9
	2	4.73	4.68	4.78	0.46	
Endrin	1	6.58	6.53	6.63	0.43	10.6
	2	5.64	5.59	5.69	0.48	

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-03RE	**JPP-46.2-012925RE**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-07RE	**JPP-46.1-012925RE**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	

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LAB CHRONICLE

Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-11RE	**JPP-42.1-012925RE**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-15RE	**JPP-42.2-012925RE**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-19RE	**JPP-51.1-012925RE**	**SOIL**			**01/29/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-46.1-012925								
Q1232-07	JPP-46.1-012925	SOIL	Aroclor-1254	32.2		2.90	18.1	ug/kg
			Total Concentration:	**32.200**				
Client ID : JPP-46.1-012925RE								
Q1232-07RE	JPP-46.1-012925RE	SOIL	Aroclor-1254	32.3		2.90	18.1	ug/kg
			Total Concentration:	**32.300**				
Client ID : JPP-42.1-012925								
Q1232-11	JPP-42.1-012925	SOIL	Aroclor-1254	16.2	J	3.10	19.2	ug/kg
			Total Concentration:	**16.200**				
Client ID : JPP-42.1-012925RE								
Q1232-11RE	JPP-42.1-012925RE	SOIL	Aroclor-1254	16.6	J	3.10	19.2	ug/kg
			Total Concentration:	**16.600**				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109349.D	1	01/31/25 08:15	02/01/25 00:15	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	19.0	U	3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	19.0	U	3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.6		32 - 144	108%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.7		32 - 175	73%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925RE	SDG No.:	Q1232
Lab Sample ID:	Q1232-03RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109407.D	1	01/31/25 08:15	02/04/25 09:09	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	19.0	U	3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	19.0	U	3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.6		32 - 144	108%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.4		32 - 175	87%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	94 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109352.D	1	01/31/25 08:15	02/01/25 01:09	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	18.1	U	3.60	18.1	ug/kg
11104-28-2	Aroclor-1221	18.1	U	6.80	18.1	ug/kg
11141-16-5	Aroclor-1232	18.1	U	3.60	18.1	ug/kg
53469-21-9	Aroclor-1242	18.1	U	3.60	18.1	ug/kg
12672-29-6	Aroclor-1248	18.1	U	8.40	18.1	ug/kg
11097-69-1	Aroclor-1254	32.2		2.90	18.1	ug/kg
37324-23-5	Aroclor-1262	18.1	U	4.90	18.1	ug/kg
11100-14-4	Aroclor-1268	18.1	U	3.60	18.1	ug/kg
11096-82-5	Aroclor-1260	18.1	U	3.10	18.1	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	24.1		32 - 144	121%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.7		32 - 175	93%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925RE	SDG No.:	Q1232
Lab Sample ID:	Q1232-07RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	94 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109410.D	1	01/31/25 08:15	02/04/25 10:04	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	18.1	U	3.60	18.1	ug/kg
11104-28-2	Aroclor-1221	18.1	U	6.80	18.1	ug/kg
11141-16-5	Aroclor-1232	18.1	U	3.60	18.1	ug/kg
53469-21-9	Aroclor-1242	18.1	U	3.60	18.1	ug/kg
12672-29-6	Aroclor-1248	18.1	U	8.40	18.1	ug/kg
11097-69-1	Aroclor-1254	32.3		2.90	18.1	ug/kg
37324-23-5	Aroclor-1262	18.1	U	4.90	18.1	ug/kg
11100-14-4	Aroclor-1268	18.1	U	3.60	18.1	ug/kg
11096-82-5	Aroclor-1260	18.1	U	3.10	18.1	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.6		32 - 144	118%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.8		32 - 175	104%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	88.1 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109353.D	1	01/31/25 08:15	02/01/25 01:27	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	19.2	U	3.80	19.2	ug/kg
11104-28-2	Aroclor-1221	19.2	U	7.30	19.2	ug/kg
11141-16-5	Aroclor-1232	19.2	U	3.80	19.2	ug/kg
53469-21-9	Aroclor-1242	19.2	U	3.80	19.2	ug/kg
12672-29-6	Aroclor-1248	19.2	U	8.90	19.2	ug/kg
11097-69-1	Aroclor-1254	16.2	J	3.10	19.2	ug/kg
37324-23-5	Aroclor-1262	19.2	U	5.20	19.2	ug/kg
11100-14-4	Aroclor-1268	19.2	U	3.90	19.2	ug/kg
11096-82-5	Aroclor-1260	19.2	U	3.30	19.2	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.8		32 - 144	109%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.9		32 - 175	89%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925RE	SDG No.:	Q1232
Lab Sample ID:	Q1232-11RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	88.1 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109411.D	1	01/31/25 08:15	02/04/25 10:22	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	19.2	U	3.80	19.2	ug/kg
11104-28-2	Aroclor-1221	19.2	U	7.30	19.2	ug/kg
11141-16-5	Aroclor-1232	19.2	U	3.80	19.2	ug/kg
53469-21-9	Aroclor-1242	19.2	U	3.80	19.2	ug/kg
12672-29-6	Aroclor-1248	19.2	U	8.90	19.2	ug/kg
11097-69-1	Aroclor-1254	16.6	J	3.10	19.2	ug/kg
37324-23-5	Aroclor-1262	19.2	U	5.20	19.2	ug/kg
11100-14-4	Aroclor-1268	19.2	U	3.90	19.2	ug/kg
11096-82-5	Aroclor-1260	19.2	U	3.30	19.2	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.8		32 - 144	104%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.6		32 - 175	98%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	93.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109354.D	1	01/31/25 08:15	02/01/25 01:46	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	18.2	U	3.60	18.2	ug/kg
11104-28-2	Aroclor-1221	18.2	U	6.90	18.2	ug/kg
11141-16-5	Aroclor-1232	18.2	U	3.60	18.2	ug/kg
53469-21-9	Aroclor-1242	18.2	U	3.60	18.2	ug/kg
12672-29-6	Aroclor-1248	18.2	U	8.40	18.2	ug/kg
11097-69-1	Aroclor-1254	18.2	U	2.90	18.2	ug/kg
37324-23-5	Aroclor-1262	18.2	U	4.90	18.2	ug/kg
11100-14-4	Aroclor-1268	18.2	U	3.70	18.2	ug/kg
11096-82-5	Aroclor-1260	18.2	U	3.10	18.2	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.6		32 - 144	118%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.0		32 - 175	90%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925RE	SDG No.:	Q1232
Lab Sample ID:	Q1232-15RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	93.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109412.D	1	01/31/25 08:15	02/04/25 10:40	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	18.2	U	3.60	18.2	ug/kg
11104-28-2	Aroclor-1221	18.2	U	6.90	18.2	ug/kg
11141-16-5	Aroclor-1232	18.2	U	3.60	18.2	ug/kg
53469-21-9	Aroclor-1242	18.2	U	3.60	18.2	ug/kg
12672-29-6	Aroclor-1248	18.2	U	8.40	18.2	ug/kg
11097-69-1	Aroclor-1254	18.2	U	2.90	18.2	ug/kg
37324-23-5	Aroclor-1262	18.2	U	4.90	18.2	ug/kg
11100-14-4	Aroclor-1268	18.2	U	3.70	18.2	ug/kg
11096-82-5	Aroclor-1260	18.2	U	3.10	18.2	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.3		32 - 144	111%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.3		32 - 175	96%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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() = Laboratory InHouse Limit

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	95.1 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109355.D	1	01/31/25 08:15	02/01/25 02:04	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	17.9	U	3.60	17.9	ug/kg
11104-28-2	Aroclor-1221	17.9	U	6.70	17.9	ug/kg
11141-16-5	Aroclor-1232	17.9	U	3.60	17.9	ug/kg
53469-21-9	Aroclor-1242	17.9	U	3.60	17.9	ug/kg
12672-29-6	Aroclor-1248	17.9	U	8.30	17.9	ug/kg
11097-69-1	Aroclor-1254	17.9	U	2.90	17.9	ug/kg
37324-23-5	Aroclor-1262	17.9	U	4.80	17.9	ug/kg
11100-14-4	Aroclor-1268	17.9	U	3.60	17.9	ug/kg
11096-82-5	Aroclor-1260	17.9	U	3.10	17.9	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	25.5		32 - 144	127%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.7		32 - 175	93%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
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Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925RE	SDG No.:	Q1232
Lab Sample ID:	Q1232-19RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	95.1 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109413.D	1	01/31/25 08:15	02/04/25 10:59	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	17.9	U	3.60	17.9	ug/kg
11104-28-2	Aroclor-1221	17.9	U	6.70	17.9	ug/kg
11141-16-5	Aroclor-1232	17.9	U	3.60	17.9	ug/kg
53469-21-9	Aroclor-1242	17.9	U	3.60	17.9	ug/kg
12672-29-6	Aroclor-1248	17.9	U	8.30	17.9	ug/kg
11097-69-1	Aroclor-1254	17.9	U	2.90	17.9	ug/kg
37324-23-5	Aroclor-1262	17.9	U	4.80	17.9	ug/kg
11100-14-4	Aroclor-1268	17.9	U	3.60	17.9	ug/kg
11096-82-5	Aroclor-1260	17.9	U	3.10	17.9	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	24.4		32 - 144	122%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.8		32 - 175	104%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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() = Laboratory InHouse Limit

QC SUMMARY

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

Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO108981.D	PIBLK-PO108981.D	Tetrachloro-m-xylene	1	20	21.9	109		60	140
		Decachlorobiphenyl	1	20	21.6	108		60	140
		Tetrachloro-m-xylene	2	20	20.6	103		60	140
		Decachlorobiphenyl	2	20	21.9	109		60	140
I.BLK-PO109321.D	PIBLK-PO109321.D	Tetrachloro-m-xylene	1	20	20.3	102		60	140
		Decachlorobiphenyl	1	20	17.8	89		60	140
		Tetrachloro-m-xylene	2	20	19.1	95		60	140
		Decachlorobiphenyl	2	20	17.8	89		60	140
PB166412BL	PB166412BL	Tetrachloro-m-xylene	1	20	24.1	120		32	144
		Decachlorobiphenyl	1	20	21.0	105		32	175
		Tetrachloro-m-xylene	2	20	22.7	114		32	144
		Decachlorobiphenyl	2	20	21.0	105		32	175
PB166412BS	PB166412BS	Tetrachloro-m-xylene	1	20	23.1	116		32	144
		Decachlorobiphenyl	1	20	21.8	109		32	175
		Tetrachloro-m-xylene	2	20	22.0	110		32	144
		Decachlorobiphenyl	2	20	21.4	107		32	175
I.BLK-PO109335.D	PIBLK-PO109335.D	Tetrachloro-m-xylene	1	20	20.1	101		60	140
		Decachlorobiphenyl	1	20	16.1	81		60	140
		Tetrachloro-m-xylene	2	20	19.7	99		60	140
		Decachlorobiphenyl	2	20	17.1	86		60	140
I.BLK-PO109348.D	PIBLK-PO109348.D	Tetrachloro-m-xylene	1	20	20.2	101		60	140
		Decachlorobiphenyl	1	20	17.1	85		60	140
		Tetrachloro-m-xylene	2	20	19.8	99		60	140
		Decachlorobiphenyl	2	20	17.5	88		60	140
Q1232-03	JPP-46.2-012925	Tetrachloro-m-xylene	1	20	21.6	108		32	144
		Decachlorobiphenyl	1	20	13.9	70		32	175
		Tetrachloro-m-xylene	2	20	19.7	99		32	144
		Decachlorobiphenyl	2	20	14.7	73		32	175
Q1232-03MS	JPP-46.2-012925MS	Tetrachloro-m-xylene	1	20	22.5	112		32	144
		Decachlorobiphenyl	1	20	18.5	93		32	175
		Tetrachloro-m-xylene	2	20	22.2	111		32	144
		Decachlorobiphenyl	2	20	19.9	100		32	175
Q1232-03MSD	JPP-46.2-012925MSD	Tetrachloro-m-xylene	1	20	22.3	112		32	144
		Decachlorobiphenyl	1	20	18.4	92		32	175
		Tetrachloro-m-xylene	2	20	22.2	111		32	144
		Decachlorobiphenyl	2	20	20.0	100		32	175
Q1232-07	JPP-46.1-012925	Tetrachloro-m-xylene	1	20	24.1	121		32	144
		Decachlorobiphenyl	1	20	17.1	86		32	175
		Tetrachloro-m-xylene	2	20	23.0	115		32	144
		Decachlorobiphenyl	2	20	18.7	93		32	175
Q1232-11	JPP-42.1-012925	Tetrachloro-m-xylene	1	20	21.8	109		32	144

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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1232-11	JPP-42.1-012925	Decachlorobiphenyl	1	20	16.6	83		32	175
		Tetrachloro-m-xylene	2	20	20.3	101		32	144
		Decachlorobiphenyl	2	20	17.9	89		32	175
Q1232-15	JPP-42.2-012925	Tetrachloro-m-xylene	1	20	22.7	113		32	144
		Decachlorobiphenyl	1	20	16.4	82		32	175
		Tetrachloro-m-xylene	2	20	23.6	118		32	144
		Decachlorobiphenyl	2	20	18.0	90		32	175
Q1232-19	JPP-51.1-012925	Tetrachloro-m-xylene	1	20	25.5	127		32	144
		Decachlorobiphenyl	1	20	17.5	88		32	175
		Tetrachloro-m-xylene	2	20	23.4	117		32	144
		Decachlorobiphenyl	2	20	18.7	93		32	175
I.BLK-PO109365.D	PIBLK-PO109365.D	Tetrachloro-m-xylene	1	20	19.8	99		60	140
		Decachlorobiphenyl	1	20	13.4	67		60	140
		Tetrachloro-m-xylene	2	20	19.9	100		60	140
		Decachlorobiphenyl	2	20	15.1	75		60	140
I.BLK-PO109369.D	PIBLK-PO109369.D	Tetrachloro-m-xylene	1	20	20.8	104		60	140
		Decachlorobiphenyl	1	20	21.4	107		60	140
		Tetrachloro-m-xylene	2	20	20.1	101		60	140
		Decachlorobiphenyl	2	20	21.6	108		60	140
I.BLK-PO109406.D	PIBLK-PO109406.D	Tetrachloro-m-xylene	1	20	22.7	114		60	140
		Decachlorobiphenyl	1	20	23.0	115		60	140
		Tetrachloro-m-xylene	2	20	21.0	105		60	140
		Decachlorobiphenyl	2	20	24.1	121		60	140
Q1232-03RE	JPP-46.2-012925RE	Tetrachloro-m-xylene	1	20	21.6	108		32	144
		Decachlorobiphenyl	1	20	16.3	81		32	175
		Tetrachloro-m-xylene	2	20	18.4	92		32	144
		Decachlorobiphenyl	2	20	17.4	87		32	175
Q1232-03MSRE	JPP-46.2-012925MSRE	Tetrachloro-m-xylene	1	20	21.0	105		32	144
		Decachlorobiphenyl	1	20	21.1	105		32	175
		Tetrachloro-m-xylene	2	20	20.4	102		32	144
		Decachlorobiphenyl	2	20	22.9	114		32	175
Q1232-03MSDRE	JPP-46.2-012925MSDRE	Tetrachloro-m-xylene	1	20	20.8	104		32	144
		Decachlorobiphenyl	1	20	20.5	102		32	175
		Tetrachloro-m-xylene	2	20	20.4	102		32	144
		Decachlorobiphenyl	2	20	22.8	114		32	175
Q1232-07RE	JPP-46.1-012925RE	Tetrachloro-m-xylene	1	20	23.6	118		32	144
		Decachlorobiphenyl	1	20	19.4	97		32	175
		Tetrachloro-m-xylene	2	20	21.8	109		32	144
		Decachlorobiphenyl	2	20	20.8	104		32	175
Q1232-11RE	JPP-42.1-012925RE	Tetrachloro-m-xylene	1	20	20.8	104		32	144
		Decachlorobiphenyl	1	20	18.4	92		32	175

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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1232-11RE	JPP-42.1-012925RE	Tetrachloro-m-xylene	2	20	19.1	95		32	144
		Decachlorobiphenyl	2	20	19.6	98		32	175
Q1232-15RE	JPP-42.2-012925RE	Tetrachloro-m-xylene	1	20	22.3	111		32	144
		Decachlorobiphenyl	1	20	18.1	91		32	175
		Tetrachloro-m-xylene	2	20	21.5	108		32	144
		Decachlorobiphenyl	2	20	19.3	96		32	175
Q1232-19RE	JPP-51.1-012925RE	Tetrachloro-m-xylene	1	20	24.4	122		32	144
		Decachlorobiphenyl	1	20	19.4	97		32	175
		Tetrachloro-m-xylene	2	20	22.0	110		32	144
		Decachlorobiphenyl	2	20	20.8	104		32	175
I.BLK-PO109423.D	PIBLK-PO109423.D	Tetrachloro-m-xylene	1	20	22.1	111		60	140
		Decachlorobiphenyl	1	20	15.5	78		60	140
		Tetrachloro-m-xylene	2	20	21.1	105		60	140
		Decachlorobiphenyl	2	20	17.8	89		60	140

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109350.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MS**											
Q1232-03MS	AR1016	186.5	0	185	ug/kg	99				55	146	
	AR1260	186.5	0	175	ug/kg	94				45	144	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109351.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MSD**											
Q1232-03MSD	AR1016	186.5	0	183	ug/kg	98		1		55	146	20
	AR1260	186.5	0	173	ug/kg	93		1		45	144	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109408.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MSRE**											
Q1232-03MSRE	AR1016	186.5	0	170	ug/kg	91				55	146	
	AR1260	186.5	0	170	ug/kg	91				45	144	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109409.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MSDRE**											
Q1232-03MSDRE	AR1016	186.5	0	167	ug/kg	90		0		55	146	20
	AR1260	186.5	0	167	ug/kg	90		0		45	144	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8082A **Datafile :** PO109324.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166412BS	AR1016	166.5	162	ug/kg	97				71	120	
	AR1260	166.5	149	ug/kg	89				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166412BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab Sample ID: PB166412BL Lab File ID: PO109323.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/31/2025

Date Analyzed (1): 01/31/2025 Date Analyzed (2): 01/31/2025

Time Analyzed (1): 11:35 Time Analyzed (2): 11:35

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166412BS	PB166412BS	PO109324.D	01/31/2025	01/31/2025
JPP-46.2-012925	Q1232-03	PO109349.D	02/01/2025	02/01/2025
JPP-46.2-012925MS	Q1232-03MS	PO109350.D	02/01/2025	02/01/2025
JPP-46.2-012925MSD	Q1232-03MSD	PO109351.D	02/01/2025	02/01/2025
JPP-46.1-012925	Q1232-07	PO109352.D	02/01/2025	02/01/2025
JPP-42.1-012925	Q1232-11	PO109353.D	02/01/2025	02/01/2025
JPP-42.2-012925	Q1232-15	PO109354.D	02/01/2025	02/01/2025
JPP-51.1-012925	Q1232-19	PO109355.D	02/01/2025	02/01/2025
JPP-46.2-012925MSRE	Q1232-03MSRE	PO109408.D	02/04/2025	02/04/2025
JPP-46.2-012925MSDRE	Q1232-03MSDRE	PO109409.D	02/04/2025	02/04/2025

COMMENTS:

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO108982.D RT 750 = PO108983.D

RT 500 = PO108984.D RT 250 = PO108985.D RT 050 = PO108986.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.79	4.79	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1016-2	(2)	4.81	4.82	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1016-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1016-5	(5)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1260-1	(1)	6.29	6.29	6.29	6.29	6.29	6.29	6.19	6.39
Aroclor-1260-2	(2)	6.48	6.48	6.48	6.48	6.48	6.48	6.38	6.58
Aroclor-1260-3	(3)	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
Aroclor-1260-4	(4)	7.11	7.11	7.11	7.11	7.11	7.11	7.01	7.21
Aroclor-1260-5	(5)	7.35	7.35	7.35	7.35	7.35	7.35	7.25	7.45
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.80	4.80	4.80	4.80	4.79	4.80	4.70	4.90
Aroclor-1242-2	(2)	4.82	4.82	4.82	4.82	4.81	4.82	4.72	4.92
Aroclor-1242-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1242-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1242-5	(5)	5.65	5.65	5.65	5.65	5.64	5.65	5.55	5.75
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.80	4.79	4.79	4.80	4.80	4.80	4.70	4.90
Aroclor-1248-2	(2)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Aroclor-1248-3	(3)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1248-4	(4)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1248-5	(5)	5.65	5.65	5.65	5.65	5.65	5.65	5.55	5.75
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.60	5.61	5.60	5.61	5.60	5.60	5.50	5.70
Aroclor-1254-2	(2)	5.75	5.75	5.75	5.75	5.75	5.75	5.65	5.85
Aroclor-1254-3	(3)	6.16	6.16	6.16	6.16	6.16	6.16	6.06	6.26
Aroclor-1254-4	(4)	6.39	6.39	6.39	6.39	6.39	6.39	6.29	6.49
Aroclor-1254-5	(5)	6.81	6.81	6.81	6.81	6.81	6.81	6.71	6.91
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.63	7.64	7.64	7.64	7.64	7.64	7.54	7.74
Aroclor-1268-2	(2)	7.70	7.70	7.70	7.70	7.70	7.70	7.60	7.80
Aroclor-1268-3	(3)	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Aroclor-1268-4	(4)	8.20	8.20	8.20	8.20	8.20	8.20	8.10	8.30
Aroclor-1268-5	(5)	8.50	8.50	8.50	8.50	8.50	8.50	8.40	8.60

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO108982.D RT 750 = PO108983.D

RT 500 = PO108984.D RT 250 = PO108985.D RT 050 = PO108986.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.78	4.78	4.80	4.78	4.78	4.79	4.69	4.89
Aroclor-1016-2	(2)	4.80	4.80	4.82	4.80	4.80	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.98	4.98	5.00	4.98	4.98	4.98	4.88	5.08
Aroclor-1016-4	(4)	5.02	5.02	5.04	5.02	5.02	5.02	4.92	5.12
Aroclor-1016-5	(5)	5.23	5.23	5.25	5.23	5.23	5.24	5.14	5.34
Aroclor-1260-1	(1)	6.27	6.27	6.29	6.27	6.26	6.27	6.17	6.37
Aroclor-1260-2	(2)	6.45	6.45	6.47	6.45	6.45	6.46	6.36	6.56
Aroclor-1260-3	(3)	6.61	6.61	6.63	6.61	6.61	6.61	6.51	6.71
Aroclor-1260-4	(4)	7.08	7.08	7.10	7.08	7.08	7.08	6.98	7.18
Aroclor-1260-5	(5)	7.32	7.32	7.34	7.32	7.32	7.32	7.22	7.42
Decachlorobiphenyl		8.71	8.71	8.73	8.71	8.71	8.72	8.62	8.82
Tetrachloro-m-xylene		3.70	3.70	3.72	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1242-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1242-3	(3)	4.98	4.98	4.98	4.98	4.98	4.98	4.88	5.08
Aroclor-1242-4	(4)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1242-5	(5)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1248-2	(2)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1248-3	(3)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1248-4	(4)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1248-5	(5)	5.62	5.62	5.62	5.63	5.62	5.62	5.52	5.72
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.58	5.58	5.58	5.59	5.58	5.58	5.48	5.68
Aroclor-1254-2	(2)	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Aroclor-1254-3	(3)	6.13	6.14	6.13	6.14	6.13	6.14	6.04	6.24
Aroclor-1254-4	(4)	6.36	6.36	6.36	6.36	6.36	6.36	6.26	6.46
Aroclor-1254-5	(5)	6.78	6.78	6.78	6.78	6.78	6.78	6.68	6.88
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.60	7.60	7.60	7.60	7.60	7.60	7.50	7.70
Aroclor-1268-2	(2)	7.67	7.67	7.67	7.67	7.66	7.67	7.57	7.77
Aroclor-1268-3	(3)	7.87	7.87	7.87	7.88	7.87	7.87	7.77	7.97
Aroclor-1268-4	(4)	8.16	8.16	8.16	8.16	8.16	8.16	8.06	8.26
Aroclor-1268-5	(5)	8.45	8.45	8.45	8.45	8.45	8.45	8.35	8.55

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: **CF 1000 =** PO108982.D **CF 750 =** PO108983.D

CF 500 = PO108984.D **CF 250 =** PO108985.D **CF 050 =** PO108986.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	233065045	244410019	248250902	263810212	271896440	252286524	6
Aroclor-1016-2	(2)	325363679	338972765	344308556	357996712	357782160	344884774	4
Aroclor-1016-3	(3)	223049536	234801713	240773660	257313424	264644780	244116623	7
Aroclor-1016-4	(4)	175974311	184579665	189100190	198987084	205504880	190829226	6
Aroclor-1016-5	(5)	190134930	199311205	207066494	222947156	224348000	208761557	7
Aroclor-1260-1	(1)	348800771	364882765	375462458	399932624	416699380	381155600	7
Aroclor-1260-2	(2)	430525248	448276513	461774946	488220872	519105560	469580628	7
Aroclor-1260-3	(3)	359859412	378331397	386511394	408169100	424938760	391562013	7
Aroclor-1260-4	(4)	332481764	347292652	354683668	372951676	382377400	357957432	6
Aroclor-1260-5	(5)	803151986	830038244	833771178	853559688	852457760	834595771	2
Decachlorobiphenyl		6434348190	6661231787	6830111140	7188416880	7524624800	6927746559	6
Tetrachloro-m-xylene		7601276640	7501278947	7481675880	7644109480	7553803600	7556428909	1
Aroclor-1242-1	(1)	195196952	201389908	214304986	226003920	225308640	212440881	7
Aroclor-1242-2	(2)	268098195	278641713	289244872	304071824	293574460	286726213	5
Aroclor-1242-3	(3)	186201466	194711956	206440658	220830688	215362160	204709386	7
Aroclor-1242-4	(4)	146339247	152438169	160415562	170237596	164916200	158869355	6
Aroclor-1242-5	(5)	154300112	158580243	167963632	178401740	175909460	167031037	6
Decachlorobiphenyl		6093757170	6273163067	6555969800	6873050240	6988220200	6556832095	6
Tetrachloro-m-xylene		7302831450	7496516067	7696349800	7451780120	6586958200	7306887127	6
Aroclor-1248-1	(1)	145246997	150453889	157781164	170519664	173855120	159571367	8
Aroclor-1248-2	(2)	197265768	209686637	218963792	239048120	252482700	223489403	10
Aroclor-1248-3	(3)	248188978	257855635	270690240	293270108	299294900	273859972	8
Aroclor-1248-4	(4)	351583188	362624208	379215116	402583304	426725120	384546187	8
Aroclor-1248-5	(5)	245666962	251879323	262640736	279614828	288543680	265669106	7
Decachlorobiphenyl		6072639940	6272001520	6560139460	6944778840	7129210800	6595754112	7
Tetrachloro-m-xylene		7184593920	7370395840	7484351680	7653720840	7312573400	7401127136	2
Aroclor-1254-1	(1)	374847163	389452248	410697836	433454068	459205320	413531327	8
Aroclor-1254-2	(2)	325342531	339278107	358066768	381289080	405152620	361825821	9
Aroclor-1254-3	(3)	522141746	540493293	562618572	587400960	607950820	564121078	6
Aroclor-1254-4	(4)	328382284	332039301	348673262	361037032	352970440	344620464	4
Aroclor-1254-5	(5)	475331089	489980032	515035558	537655848	547482260	513096957	6
Decachlorobiphenyl		6154630290	6360969147	6655043100	6960677720	7204237800	6667111611	6
Tetrachloro-m-xylene		7266635340	7453080907	7677404800	7686251640	7337350200	7484144577	3
Aroclor-1268-1	(1)	1033690630	1036942464	1067670602	1080273708	1104982020	1064711885	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	952087675	951155156	979561020	979388044	983362060	969110791	2
Aroclor-1268-3	(3)	786406202	784932265	807859298	814292396	834332900	805564612	3
Aroclor-1268-4	(4)	327369336	328395845	341390382	351699060	363994160	342569757	5
Aroclor-1268-5	(5)	2419252053	2385425329	2430042174	2398845144	2323360200	2391384980	2
Decachlorobiphenyl		11036128070	11026162653	11389192500	11664983320	12135593800	11450412069	4
Tetrachloro-m-xylene		7546638300	7604080347	7812040940	7844017680	7509481400	7663251733	2

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O

Calibration Date(s): 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO108982.D CF 750 = PO108983.D

CF 500 = PO108984.D CF 250 = PO108985.D CF 050 = PO108986.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	145518803	142573049	166649690	172900172	181948120	161917967	11
Aroclor-1016-2	(2)	223129267	236622256	232122136	250011316	249296120	238236219	5
Aroclor-1016-3	(3)	121270732	126119179	128693642	138175620	137629920	130377819	6
Aroclor-1016-4	(4)	98703058	105288716	109289440	120650588	118660940	110518548	8
Aroclor-1016-5	(5)	130939362	136319948	141694888	155164716	153595760	143542935	7
Aroclor-1260-1	(1)	229857010	239931019	247217984	265407312	277830920	252048849	8
Aroclor-1260-2	(2)	274616892	283537992	291890314	314812824	339164440	300804492	9
Aroclor-1260-3	(3)	255547157	264550967	272530098	288370904	310931080	278386041	8
Aroclor-1260-4	(4)	210034482	216033343	222462830	233977972	245747280	225651181	6
Aroclor-1260-5	(5)	481178354	492665984	499979908	514637484	514938920	500680130	3
Decachlorobiphenyl		3156544800	3289680693	3391332080	3623383520	3732817400	3438751699	7
Tetrachloro-m-xylene		5315746230	5437498093	5428207440	5462079080	5158066000	5360319369	2
Aroclor-1242-1	(1)	130294727	135534199	142873858	151389892	154466220	142911779	7
Aroclor-1242-2	(2)	183791222	188978371	198913930	207089908	207312700	197217226	5
Aroclor-1242-3	(3)	100083291	104057155	110676450	116018292	114379700	109042978	6
Aroclor-1242-4	(4)	101694040	106737525	114342192	123447428	121997980	113643833	8
Aroclor-1242-5	(5)	124175329	128045065	135895568	145256248	150561360	136786714	8
Decachlorobiphenyl		2975923130	3104041173	3249737920	3444762080	3552503800	3265393621	7
Tetrachloro-m-xylene		5146305370	5269389160	5422425040	5452266880	4942424000	5246562090	4
Aroclor-1248-1	(1)	97508588	101198119	106540372	114549420	116802080	107319716	8
Aroclor-1248-2	(2)	135954819	143343636	151605960	164947764	174030220	153976480	10
Aroclor-1248-3	(3)	145968318	152945292	161442194	176334456	190180940	165374240	11
Aroclor-1248-4	(4)	171715835	178859555	187881420	202639424	216432800	191505807	9
Aroclor-1248-5	(5)	167823607	172638881	180053168	192035492	203508660	183211962	8
Decachlorobiphenyl		3009595400	3126029333	3260555920	3479534800	3551272200	3285397531	7
Tetrachloro-m-xylene		5072748910	5224226253	5283938200	5402921120	5021628000	5201092497	3
Aroclor-1254-1	(1)	253547823	264686405	278940988	295164372	313075680	281083054	8
Aroclor-1254-2	(2)	223099297	232757513	247383274	262896088	285176280	250262490	10
Aroclor-1254-3	(3)	362340991	375750797	393412880	409817176	422789620	392822293	6
Aroclor-1254-4	(4)	207964031	212728924	222445680	231289600	227332320	220352111	4
Aroclor-1254-5	(5)	302636627	313319767	329146572	343115096	345356740	326714960	6
Decachlorobiphenyl		3009418030	3125275440	3274408080	3481058080	3592269800	3296485886	7
Tetrachloro-m-xylene		5157782560	5318511973	5462257400	5454366480	5168021000	5312187883	3
Aroclor-1268-1	(1)	605633372	613614913	625929052	644237020	658094440	629501759	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	555793036	560357999	571244564	587032548	581198500	571125329	2
Aroclor-1268-3	(3)	443116844	448542784	458393734	471576124	481232120	460572321	3
Aroclor-1268-4	(4)	171795401	175640587	181667170	188528320	184928840	180512064	4
Aroclor-1268-5	(5)	1182764439	1191499568	1205466938	1214359780	1189190120	1196656169	1
Decachlorobiphenyl		5296716160	5425177360	5590471540	5802552800	5997123200	5622408212	5
Tetrachloro-m-xylene		5377448880	5418716973	5531134800	5564772080	5234786600	5425371867	2

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Date(s) Analyzed:** 01/21/2025 01/22/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	100101000
		2	4.00	3.90	4.10	74407200
		3	4.08	3.98	4.18	208014000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.08	3.98	4.18	165122000
		2	4.57	4.47	4.67	90981600
		3	4.81	4.71	4.91	160152000
		4	4.99	4.89	5.09	88001400
		5	5.03	4.93	5.13	64818200
Aroclor-1262	500	1	6.85	6.75	6.95	534016000
		2	7.35	7.25	7.45	919466000
		3	7.64	7.54	7.74	364572000
		4	7.70	7.60	7.80	687626000
		5	8.20	8.10	8.30	302118000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Date(s) Analyzed:** 01/21/2025 01/22/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	65489800
		2	4.00	3.90	4.10	49387600
		3	4.07	3.97	4.17	145160000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	115508000
		2	4.80	4.70	4.90	108913000
		3	4.98	4.88	5.08	59967000
		4	5.06	4.96	5.16	57262000
		5	5.23	5.13	5.33	60672000
Aroclor-1262	500	1	6.82	6.72	6.92	340358000
		2	7.32	7.22	7.42	554604000
		3	7.60	7.50	7.70	214440000
		4	7.67	7.57	7.77	391888000
		5	8.16	8.06	8.26	159461000

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO109370.D RT 750 = PO109371.D

RT 500 = PO109372.D RT 250 = PO109373.D RT 050 = PO109374.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.79	4.79	4.79	4.79	4.79	4.79	4.69	4.89
Aroclor-1016-2	(2)	4.81	4.81	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1016-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1016-5	(5)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1260-1	(1)	6.29	6.29	6.29	6.29	6.29	6.29	6.19	6.39
Aroclor-1260-2	(2)	6.48	6.48	6.48	6.48	6.48	6.48	6.38	6.58
Aroclor-1260-3	(3)	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
Aroclor-1260-4	(4)	7.11	7.11	7.11	7.11	7.11	7.11	7.01	7.21
Aroclor-1260-5	(5)	7.35	7.35	7.35	7.35	7.35	7.35	7.25	7.45
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.79	4.79	4.79	4.79	4.79	4.79	4.69	4.89
Aroclor-1242-2	(2)	4.81	4.81	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1242-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1242-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1242-5	(5)	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.79	4.79	4.79	4.79	4.79	4.79	4.69	4.89
Aroclor-1248-2	(2)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Aroclor-1248-3	(3)	5.25	5.25	5.24	5.25	5.25	5.25	5.15	5.35
Aroclor-1248-4	(4)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1248-5	(5)	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1254-2	(2)	5.75	5.75	5.75	5.75	5.75	5.75	5.65	5.85
Aroclor-1254-3	(3)	6.16	6.16	6.16	6.16	6.16	6.16	6.06	6.26
Aroclor-1254-4	(4)	6.39	6.39	6.39	6.39	6.39	6.39	6.29	6.49
Aroclor-1254-5	(5)	6.81	6.81	6.81	6.81	6.81	6.81	6.71	6.91
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.64	7.64	7.64	7.63	7.64	7.64	7.54	7.74
Aroclor-1268-2	(2)	7.70	7.70	7.70	7.70	7.70	7.70	7.60	7.80
Aroclor-1268-3	(3)	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Aroclor-1268-4	(4)	8.20	8.20	8.20	8.20	8.20	8.20	8.10	8.30
Aroclor-1268-5	(5)	8.50	8.50	8.50	8.50	8.50	8.50	8.40	8.60

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO109370.D RT 750 = PO109371.D

RT 500 = PO109372.D RT 250 = PO109373.D RT 050 = PO109374.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1016-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1016-3	(3)	4.98	4.97	4.97	4.97	4.97	4.97	4.87	5.07
Aroclor-1016-4	(4)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1016-5	(5)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1260-1	(1)	6.26	6.26	6.26	6.26	6.26	6.26	6.16	6.36
Aroclor-1260-2	(2)	6.45	6.45	6.45	6.45	6.45	6.45	6.35	6.55
Aroclor-1260-3	(3)	6.60	6.60	6.60	6.60	6.60	6.60	6.50	6.70
Aroclor-1260-4	(4)	7.08	7.08	7.07	7.08	7.07	7.08	6.98	7.18
Aroclor-1260-5	(5)	7.32	7.32	7.31	7.32	7.31	7.32	7.22	7.42
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.69	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1242-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1242-3	(3)	4.98	4.97	4.97	4.97	4.97	4.97	4.87	5.07
Aroclor-1242-4	(4)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1242-5	(5)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.69	3.69	3.69	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1248-2	(2)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1248-3	(3)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1248-4	(4)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1248-5	(5)	5.62	5.62	5.62	5.62	5.62	5.62	5.52	5.72
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.69	3.69	3.69	3.69	3.69	3.69	3.59	3.79
Aroclor-1254-1	(1)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Aroclor-1254-2	(2)	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Aroclor-1254-3	(3)	6.13	6.13	6.13	6.13	6.13	6.13	6.03	6.23
Aroclor-1254-4	(4)	6.36	6.36	6.36	6.36	6.36	6.36	6.26	6.46
Aroclor-1254-5	(5)	6.78	6.78	6.78	6.78	6.78	6.78	6.68	6.88
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.69	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.60	7.60	7.60	7.60	7.60	7.60	7.50	7.70
Aroclor-1268-2	(2)	7.67	7.67	7.66	7.66	7.66	7.66	7.56	7.76
Aroclor-1268-3	(3)	7.87	7.87	7.87	7.87	7.87	7.87	7.77	7.97
Aroclor-1268-4	(4)	8.16	8.16	8.16	8.16	8.16	8.16	8.06	8.26
Aroclor-1268-5	(5)	8.45	8.45	8.45	8.45	8.45	8.45	8.35	8.55

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.69	3.70	3.60	3.80

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO109370.D CF 750 = PO109371.D

CF 500 = PO109372.D CF 250 = PO109373.D CF 050 = PO109374.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	235317786	240387277	252616446	270730944	277374780	255285447	7
Aroclor-1016-2	(2)	317456650	333812187	341175896	359252668	360710180	342481516	5
Aroclor-1016-3	(3)	222362207	229514455	240138458	257895316	262445680	242471223	7
Aroclor-1016-4	(4)	177068080	182121103	189950302	202822896	208610740	192114624	7
Aroclor-1016-5	(5)	188235094	193849961	202793534	220495896	221464260	205367749	7
Aroclor-1260-1	(1)	342293090	352624020	366276234	392547596	412690840	373286356	8
Aroclor-1260-2	(2)	423470897	430072589	448025360	476511620	512643040	458144701	8
Aroclor-1260-3	(3)	353148761	363197761	373408456	401006340	424222880	382996840	8
Aroclor-1260-4	(4)	326685301	334799956	345585554	367152080	376870660	350218710	6
Aroclor-1260-5	(5)	776260672	789582677	809655652	839954564	862435840	815577881	4
Decachlorobiphenyl		6054948770	6170848653	6385471300	6759256200	7035652800	6481235545	6
Tetrachloro-m-xylene		7537789720	7637854440	7762340380	7614954320	7341391600	7578866092	2
Aroclor-1242-1	(1)	197334599	204940145	212220936	230084932	227421240	214400370	7
Aroclor-1242-2	(2)	265786510	278371144	287816958	305404188	295561060	286587972	5
Aroclor-1242-3	(3)	185058250	194571396	202706248	219955100	215411620	203540523	7
Aroclor-1242-4	(4)	146700154	154078684	158957240	170855512	171944280	160507174	7
Aroclor-1242-5	(5)	153223867	159773192	165198400	181134604	184818260	168829665	8
Decachlorobiphenyl		5647313730	5850539653	6047566620	6386728720	6474172400	6081264225	6
Tetrachloro-m-xylene		7256950730	7471164160	7603441480	7790630080	7409049200	7506247130	3
Aroclor-1248-1	(1)	146962778	151915439	162826108	170942184	170822880	160693878	7
Aroclor-1248-2	(2)	199227110	207000031	222476092	237749956	255259300	224342498	10
Aroclor-1248-3	(3)	247483851	255500071	274857826	289200096	301995900	273807549	8
Aroclor-1248-4	(4)	352065611	361039059	382944132	400046444	414632680	382145585	7
Aroclor-1248-5	(5)	247656524	252385875	269070708	280954660	286070540	267227661	6
Decachlorobiphenyl		5609834240	5759565067	6027167560	6251093240	6308340800	5991200181	5
Tetrachloro-m-xylene		7204476060	7307013053	7583233240	7674308840	7202293800	7394264999	3
Aroclor-1254-1	(1)	389077966	394823324	411471450	435522448	465269420	419232922	8
Aroclor-1254-2	(2)	339809413	345654540	362716334	386275232	432365500	373364204	10
Aroclor-1254-3	(3)	560442568	567643307	589401626	614138652	657432700	597811771	7
Aroclor-1254-4	(4)	341037643	333768951	338607716	349872980	327782320	338213922	2
Aroclor-1254-5	(5)	489637976	493484969	513693524	532708460	530251720	511955330	4
Decachlorobiphenyl		5858870260	5885298800	6106847120	6350391840	6409478800	6122177364	4
Tetrachloro-m-xylene		7558480160	7569338440	7756963700	7879721960	7331379200	7619176692	3
Aroclor-1268-1	(1)	1060325183	1043050687	1065797526	1096750544	1040315180	1061247824	2

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	978377814	960952537	981985162	1008226020	943849700	974678247	2
Aroclor-1268-3	(3)	802971546	788973609	806486708	831416156	789167280	803803060	2
Aroclor-1268-4	(4)	317503517	316627091	334247174	358558444	384945380	342376321	9
Aroclor-1268-5	(5)	2278699068	2228567457	2261614568	2279048372	2049911940	2219568281	4
Decachlorobiphenyl		10306107350	10157126853	10447096540	10874980000	10427163200	10442494789	3
Tetrachloro-m-xylene		7845541500	7700418680	7908692460	8012095560	7236914800	7740732600	4

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: **CF 1000 =** PO109370.D **CF 750 =** PO109371.D

CF 500 = PO109372.D **CF 250 =** PO109373.D **CF 050 =** PO109374.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	153264943	158113879	164537820	175109820	188488020	167902896	8
Aroclor-1016-2	(2)	215030936	222535907	230791366	244561788	247372860	232058571	6
Aroclor-1016-3	(3)	117766190	120601281	126178226	135206824	140293280	128009160	7
Aroclor-1016-4	(4)	96826511	100706524	107134058	116795180	127492600	109790975	11
Aroclor-1016-5	(5)	128361625	131809323	138948806	150436768	151836120	140278528	8
Aroclor-1260-1	(1)	225807591	232124708	242393268	261236200	274037320	247119817	8
Aroclor-1260-2	(2)	269418607	275070071	287381706	308186452	320338600	292079087	7
Aroclor-1260-3	(3)	255727834	263061365	276236828	304521580	322477280	284404977	10
Aroclor-1260-4	(4)	202687973	207427676	215633844	229721196	245640420	220222222	8
Aroclor-1260-5	(5)	468691821	473960392	485910284	503467072	521629300	490731774	4
Decachlorobiphenyl		2869026620	2934686067	3081400200	3274572920	3421855800	3116308321	7
Tetrachloro-m-xylene		5213092940	5275876587	5368678560	5502731680	5343841400	5340844233	2
Aroclor-1242-1	(1)	128201947	133999579	140199986	151291416	151737820	141086150	7
Aroclor-1242-2	(2)	180116057	187990837	193950162	207443820	202594860	194419147	6
Aroclor-1242-3	(3)	98415916	102862087	106686518	114914080	114890880	107553896	7
Aroclor-1242-4	(4)	99499055	104564516	110212460	122453692	126942680	112734481	10
Aroclor-1242-5	(5)	120970385	126562719	132762996	145269744	140486480	133210465	7
Decachlorobiphenyl		2681588160	2805605107	2963333620	3194117160	3259185200	2980765849	8
Tetrachloro-m-xylene		5025574020	5171478640	5249343640	5411420520	4979995200	5167562404	3
Aroclor-1248-1	(1)	96991072	99650249	107360952	113149160	116291680	106688623	8
Aroclor-1248-2	(2)	134470113	139550641	150876132	162116232	173367240	152076072	11
Aroclor-1248-3	(3)	143621711	148800272	161120540	172009316	185838580	162278084	11
Aroclor-1248-4	(4)	169090611	174042627	187731984	198272620	205371660	186901900	8
Aroclor-1248-5	(5)	166537611	170537543	181997908	191074516	188929520	179815420	6
Decachlorobiphenyl		2758948620	2860350253	3062672360	3204082240	3305205400	3038251775	8
Tetrachloro-m-xylene		4985063440	5058850453	5283231640	5299839520	4943532600	5114103531	3
Aroclor-1254-1	(1)	258812283	261928736	275087630	291465840	309297220	279318342	8
Aroclor-1254-2	(2)	226599173	230656979	242348974	260549028	289659560	249962743	10
Aroclor-1254-3	(3)	367155524	370663624	385253628	402077168	407098000	386449589	5
Aroclor-1254-4	(4)	211061915	207363419	212342790	220544016	190805140	208423456	5
Aroclor-1254-5	(5)	304600854	307888127	321851642	335906840	345186360	323086765	5
Decachlorobiphenyl		2911755880	3004200760	3167779400	3323943760	3409494800	3163434920	7
Tetrachloro-m-xylene		5244001860	5240433640	5374931480	5434663200	4985288000	5255863636	3
Aroclor-1268-1	(1)	590846797	581634948	597230514	624849832	608144640	600541346	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	542437119	532276172	548178670	571646760	539255300	546758804	3
Aroclor-1268-3	(3)	433110112	424724803	437297710	459430228	441635260	439239623	3
Aroclor-1268-4	(4)	170526494	166707964	173722334	184577088	170298900	173166556	4
Aroclor-1268-5	(5)	1166175763	1139506068	1161503202	1197064764	1120826220	1157015203	2
Decachlorobiphenyl		5215914320	5162812320	5395934040	5697518440	5550218000	5404479424	4
Tetrachloro-m-xylene		5450783370	5333541467	5490349720	5602153360	4795336800	5334432943	6

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Date(s) Analyzed:** 02/03/2025 02/04/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	97534400
		2	4.00	3.90	4.10	73947200
		3	4.08	3.98	4.18	207362000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	165633000
		2	4.57	4.47	4.67	90172400
		3	4.81	4.71	4.91	159712000
		4	4.99	4.89	5.09	88931200
		5	5.03	4.93	5.13	64613800
Aroclor-1262	500	1	6.85	6.75	6.95	530972000
		2	7.35	7.25	7.45	920474000
		3	7.64	7.54	7.74	360214000
		4	7.70	7.60	7.80	671730000
		5	8.20	8.10	8.30	285950000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_O **Date(s) Analyzed:** 02/03/2025 02/04/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	65094400
		2	3.99	3.89	4.09	49658400
		3	4.07	3.97	4.17	146489000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	114709000
		2	4.80	4.70	4.90	107451000
		3	4.97	4.87	5.07	59119000
		4	5.06	4.96	5.16	56134200
		5	5.23	5.13	5.33	60079000
Aroclor-1262	500	1	6.82	6.72	6.92	330774000
		2	7.32	7.22	7.42	540530000
		3	7.60	7.50	7.70	218438000
		4	7.66	7.56	7.76	379560000
		5	8.16	8.06	8.26	155383000

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 09:16 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 09:16 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.97	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.01	5.04	4.94	5.14	0.03
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.60	6.63	6.53	6.73	0.03
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.03
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.69	3.72	3.62	3.82	0.03
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109317.D **Time Analyzed:** 09:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.695	4.895	550.790	500.000	10.2
Aroclor-1016-2	4.813	4.714	4.914	550.890	500.000	10.2
Aroclor-1016-3	4.869	4.770	4.970	543.070	500.000	8.6
Aroclor-1016-4	4.990	4.891	5.091	548.160	500.000	9.6
Aroclor-1016-5	5.247	5.149	5.349	539.660	500.000	7.9
Aroclor-1260-1	6.290	6.190	6.390	523.710	500.000	4.7
Aroclor-1260-2	6.478	6.379	6.579	517.600	500.000	3.5
Aroclor-1260-3	6.847	6.747	6.947	511.430	500.000	2.3
Aroclor-1260-4	7.107	7.008	7.208	495.890	500.000	-0.8
Aroclor-1260-5	7.349	7.249	7.449	486.540	500.000	-2.7
Decachlorobiphenyl	8.759	8.658	8.858	45.000	50.000	-10.0
Tetrachloro-m-xylene	3.698	3.600	3.800	56.080	50.000	12.2

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

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109317.D **Time Analyzed:** 09:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.703	4.903	559.060	500.000	11.8
Aroclor-1016-2	4.797	4.722	4.922	502.860	500.000	0.6
Aroclor-1016-3	4.973	4.898	5.098	524.970	500.000	5.0
Aroclor-1016-4	5.014	4.940	5.140	518.430	500.000	3.7
Aroclor-1016-5	5.229	5.153	5.353	510.340	500.000	2.1
Aroclor-1260-1	6.262	6.186	6.386	502.170	500.000	0.4
Aroclor-1260-2	6.450	6.373	6.573	497.440	500.000	-0.5
Aroclor-1260-3	6.603	6.527	6.727	495.150	500.000	-1.0
Aroclor-1260-4	7.075	6.999	7.199	499.130	500.000	-0.2
Aroclor-1260-5	7.315	7.239	7.439	499.000	500.000	-0.2
Decachlorobiphenyl	8.709	8.633	8.833	44.120	50.000	-11.8
Tetrachloro-m-xylene	3.694	3.618	3.818	54.310	50.000	8.6

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 17:22 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 17:22 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.02
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109331.D **Time Analyzed:** 17:22

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.794	4.695	4.895	529.170	500.000	5.8
Aroclor-1016-2	4.814	4.714	4.914	527.480	500.000	5.5
Aroclor-1016-3	4.870	4.770	4.970	517.980	500.000	3.6
Aroclor-1016-4	4.991	4.891	5.091	521.800	500.000	4.4
Aroclor-1016-5	5.249	5.149	5.349	546.460	500.000	9.3
Aroclor-1260-1	6.291	6.190	6.390	448.550	500.000	-10.3
Aroclor-1260-2	6.479	6.379	6.579	456.840	500.000	-8.6
Aroclor-1260-3	6.848	6.747	6.947	472.180	500.000	-5.6
Aroclor-1260-4	7.108	7.008	7.208	435.580	500.000	-12.9
Aroclor-1260-5	7.350	7.249	7.449	423.730	500.000	-15.3
Decachlorobiphenyl	8.759	8.658	8.858	39.540	50.000	-20.9
Tetrachloro-m-xylene	3.699	3.600	3.800	53.070	50.000	6.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109331.D **Time Analyzed:** 17:22

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.780	4.703	4.903	573.010	500.000	14.6
Aroclor-1016-2	4.800	4.722	4.922	500.780	500.000	0.2
Aroclor-1016-3	4.976	4.898	5.098	538.260	500.000	7.7
Aroclor-1016-4	5.017	4.940	5.140	496.750	500.000	-0.7
Aroclor-1016-5	5.231	5.153	5.353	550.950	500.000	10.2
Aroclor-1260-1	6.264	6.186	6.386	483.980	500.000	-3.2
Aroclor-1260-2	6.452	6.373	6.573	475.980	500.000	-4.8
Aroclor-1260-3	6.606	6.527	6.727	473.890	500.000	-5.2
Aroclor-1260-4	7.077	6.999	7.199	438.870	500.000	-12.2
Aroclor-1260-5	7.318	7.239	7.439	441.630	500.000	-11.7
Decachlorobiphenyl	8.711	8.633	8.833	41.590	50.000	-16.8
Tetrachloro-m-xylene	3.697	3.618	3.818	54.770	50.000	9.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 22:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 22:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109344.D **Time Analyzed:** 22:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.792	4.695	4.895	531.740	500.000	6.3
Aroclor-1016-2	4.811	4.714	4.914	533.890	500.000	6.8
Aroclor-1016-3	4.867	4.770	4.970	522.950	500.000	4.6
Aroclor-1016-4	4.988	4.891	5.091	525.960	500.000	5.2
Aroclor-1016-5	5.246	5.149	5.349	557.920	500.000	11.6
Aroclor-1260-1	6.288	6.190	6.390	505.440	500.000	1.1
Aroclor-1260-2	6.477	6.379	6.579	501.420	500.000	0.3
Aroclor-1260-3	6.846	6.747	6.947	490.000	500.000	-2.0
Aroclor-1260-4	7.106	7.008	7.208	468.410	500.000	-6.3
Aroclor-1260-5	7.348	7.249	7.449	461.330	500.000	-7.7
Decachlorobiphenyl	8.757	8.658	8.858	42.570	50.000	-14.9
Tetrachloro-m-xylene	3.698	3.600	3.800	53.450	50.000	6.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109344.D **Time Analyzed:** 22:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.780	4.703	4.903	566.450	500.000	13.3
Aroclor-1016-2	4.799	4.722	4.922	503.230	500.000	0.6
Aroclor-1016-3	4.975	4.898	5.098	532.710	500.000	6.5
Aroclor-1016-4	5.016	4.940	5.140	473.450	500.000	-5.3
Aroclor-1016-5	5.230	5.153	5.353	541.140	500.000	8.2
Aroclor-1260-1	6.264	6.186	6.386	528.710	500.000	5.7
Aroclor-1260-2	6.451	6.373	6.573	516.160	500.000	3.2
Aroclor-1260-3	6.605	6.527	6.727	505.880	500.000	1.2
Aroclor-1260-4	7.076	6.999	7.199	502.910	500.000	0.6
Aroclor-1260-5	7.316	7.239	7.439	497.040	500.000	-0.6
Decachlorobiphenyl	8.710	8.633	8.833	43.440	50.000	-13.1
Tetrachloro-m-xylene	3.696	3.618	3.818	55.700	50.000	11.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 06:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 06:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.97	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.03
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.60	6.63	6.53	6.73	0.03
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.03
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.03
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109364.D **Time Analyzed:** 06:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.695	4.895	524.500	500.000	4.9
Aroclor-1016-2	4.812	4.714	4.914	530.300	500.000	6.1
Aroclor-1016-3	4.868	4.770	4.970	516.520	500.000	3.3
Aroclor-1016-4	4.989	4.891	5.091	516.180	500.000	3.2
Aroclor-1016-5	5.247	5.149	5.349	540.580	500.000	8.1
Aroclor-1260-1	6.289	6.190	6.390	422.370	500.000	-15.5
Aroclor-1260-2	6.478	6.379	6.579	408.310	500.000	-18.3
Aroclor-1260-3	6.847	6.747	6.947	379.480	500.000	-24.1
Aroclor-1260-4	7.107	7.008	7.208	388.000	500.000	-22.4
Aroclor-1260-5	7.348	7.249	7.449	382.060	500.000	-23.6
Decachlorobiphenyl	8.757	8.658	8.858	33.880	50.000	-32.2
Tetrachloro-m-xylene	3.698	3.600	3.800	53.260	50.000	6.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109364.D **Time Analyzed:** 06:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.703	4.903	566.230	500.000	13.2
Aroclor-1016-2	4.798	4.722	4.922	529.800	500.000	6.0
Aroclor-1016-3	4.973	4.898	5.098	549.850	500.000	10.0
Aroclor-1016-4	5.015	4.940	5.140	471.870	500.000	-5.6
Aroclor-1016-5	5.229	5.153	5.353	533.700	500.000	6.7
Aroclor-1260-1	6.262	6.186	6.386	485.550	500.000	-2.9
Aroclor-1260-2	6.450	6.373	6.573	458.810	500.000	-8.2
Aroclor-1260-3	6.604	6.527	6.727	431.070	500.000	-13.8
Aroclor-1260-4	7.075	6.999	7.199	405.070	500.000	-19.0
Aroclor-1260-5	7.316	7.239	7.439	399.550	500.000	-20.1
Decachlorobiphenyl	8.709	8.633	8.833	37.230	50.000	-25.5
Tetrachloro-m-xylene	3.695	3.618	3.818	55.990	50.000	12.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 08:32 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.79	4.69	4.89	0.00
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 08:32 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.78	4.68	4.88	0.00
Aroclor-1016-2	(2)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-3	(3)	4.97	4.97	4.87	5.07	0.00
Aroclor-1016-4	(4)	5.02	5.02	4.92	5.12	0.00
Aroclor-1016-5	(5)	5.23	5.23	5.13	5.33	0.00
Aroclor-1260-1	(1)	6.26	6.26	6.16	6.36	0.00
Aroclor-1260-2	(2)	6.45	6.45	6.35	6.55	0.00
Aroclor-1260-3	(3)	6.60	6.60	6.50	6.70	0.00
Aroclor-1260-4	(4)	7.08	7.07	6.97	7.17	0.00
Aroclor-1260-5	(5)	7.32	7.31	7.21	7.41	-0.01
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.01
Decachlorobiphenyl		8.71	8.71	8.61	8.81	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL05 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109405.D **Time Analyzed:** 08:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.693	4.893	537.250	500.000	7.5
Aroclor-1016-2	4.812	4.713	4.913	540.650	500.000	8.1
Aroclor-1016-3	4.869	4.769	4.969	539.300	500.000	7.9
Aroclor-1016-4	4.989	4.890	5.090	535.140	500.000	7.0
Aroclor-1016-5	5.247	5.148	5.348	541.600	500.000	8.3
Aroclor-1260-1	6.289	6.190	6.390	541.930	500.000	8.4
Aroclor-1260-2	6.478	6.378	6.578	536.860	500.000	7.4
Aroclor-1260-3	6.846	6.747	6.947	540.560	500.000	8.1
Aroclor-1260-4	7.107	7.007	7.207	536.910	500.000	7.4
Aroclor-1260-5	7.349	7.249	7.449	544.100	500.000	8.8
Decachlorobiphenyl	8.758	8.658	8.858	50.980	50.000	2.0
Tetrachloro-m-xylene	3.698	3.599	3.799	55.560	50.000	11.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL05 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109405.D **Time Analyzed:** 08:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.779	4.679	4.879	514.180	500.000	2.8
Aroclor-1016-2	4.798	4.698	4.898	520.680	500.000	4.1
Aroclor-1016-3	4.974	4.874	5.074	516.610	500.000	3.3
Aroclor-1016-4	5.016	4.915	5.115	509.250	500.000	1.9
Aroclor-1016-5	5.229	5.129	5.329	521.880	500.000	4.4
Aroclor-1260-1	6.262	6.162	6.362	517.160	500.000	3.4
Aroclor-1260-2	6.449	6.349	6.549	519.610	500.000	3.9
Aroclor-1260-3	6.603	6.503	6.703	494.810	500.000	-1.0
Aroclor-1260-4	7.075	6.974	7.174	511.430	500.000	2.3
Aroclor-1260-5	7.315	7.214	7.414	516.330	500.000	3.3
Decachlorobiphenyl	8.708	8.607	8.807	54.160	50.000	8.3
Tetrachloro-m-xylene	3.695	3.595	3.795	52.840	50.000	5.7

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 13:58 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.79	4.69	4.89	0.00
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.01
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.01
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 13:58 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.78	4.68	4.88	0.00
Aroclor-1016-2	(2)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-3	(3)	4.97	4.97	4.87	5.07	0.00
Aroclor-1016-4	(4)	5.01	5.02	4.92	5.12	0.01
Aroclor-1016-5	(5)	5.23	5.23	5.13	5.33	0.00
Aroclor-1260-1	(1)	6.26	6.26	6.16	6.36	0.00
Aroclor-1260-2	(2)	6.45	6.45	6.35	6.55	0.00
Aroclor-1260-3	(3)	6.60	6.60	6.50	6.70	0.00
Aroclor-1260-4	(4)	7.07	7.07	6.97	7.17	0.00
Aroclor-1260-5	(5)	7.31	7.31	7.21	7.41	0.00
Tetrachloro-m-xylene		3.69	3.70	3.60	3.80	0.01
Decachlorobiphenyl		8.71	8.71	8.61	8.81	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL06 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109422.D **Time Analyzed:** 13:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.791	4.693	4.893	458.750	500.000	-8.3
Aroclor-1016-2	4.811	4.713	4.913	458.110	500.000	-8.4
Aroclor-1016-3	4.867	4.769	4.969	448.590	500.000	-10.3
Aroclor-1016-4	4.988	4.890	5.090	439.950	500.000	-12.0
Aroclor-1016-5	5.245	5.148	5.348	437.600	500.000	-12.5
Aroclor-1260-1	6.287	6.190	6.390	343.690	500.000	-31.3
Aroclor-1260-2	6.476	6.378	6.578	344.860	500.000	-31.0
Aroclor-1260-3	6.845	6.747	6.947	340.860	500.000	-31.8
Aroclor-1260-4	7.105	7.007	7.207	323.390	500.000	-35.3
Aroclor-1260-5	7.346	7.249	7.449	316.680	500.000	-36.7
Decachlorobiphenyl	8.755	8.658	8.858	35.320	50.000	-29.4
Tetrachloro-m-xylene	3.698	3.599	3.799	48.980	50.000	-2.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL06 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109422.D **Time Analyzed:** 13:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.679	4.879	474.730	500.000	-5.1
Aroclor-1016-2	4.797	4.698	4.898	478.930	500.000	-4.2
Aroclor-1016-3	4.972	4.874	5.074	466.200	500.000	-6.8
Aroclor-1016-4	5.014	4.915	5.115	453.590	500.000	-9.3
Aroclor-1016-5	5.228	5.129	5.329	466.150	500.000	-6.8
Aroclor-1260-1	6.261	6.162	6.362	383.820	500.000	-23.2
Aroclor-1260-2	6.448	6.349	6.549	385.730	500.000	-22.9
Aroclor-1260-3	6.601	6.503	6.703	356.180	500.000	-28.8
Aroclor-1260-4	7.073	6.974	7.174	353.890	500.000	-29.2
Aroclor-1260-5	7.314	7.214	7.414	353.190	500.000	-29.4
Decachlorobiphenyl	8.707	8.607	8.807	38.440	50.000	-23.1
Tetrachloro-m-xylene	3.694	3.595	3.795	52.660	50.000	5.3

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_O

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	17:18	PO108981.D	8.76	3.70
AR1660ICC1000	AR1660ICC1000	01/21/2025	17:36	PO108982.D	8.76	3.70
AR1660ICC750	AR1660ICC750	01/21/2025	17:54	PO108983.D	8.76	3.70
AR1660ICC500	AR1660ICC500	01/21/2025	18:13	PO108984.D	8.76	3.70
AR1660ICC250	AR1660ICC250	01/21/2025	18:31	PO108985.D	8.76	3.70
AR1660ICC050	AR1660ICC050	01/21/2025	18:49	PO108986.D	8.76	3.70
AR1221ICC500	AR1221ICC500	01/21/2025	19:07	PO108987.D	8.76	3.70
AR1232ICC500	AR1232ICC500	01/21/2025	19:26	PO108988.D	8.76	3.70
AR1242ICC1000	AR1242ICC1000	01/21/2025	19:44	PO108989.D	8.76	3.70
AR1242ICC750	AR1242ICC750	01/21/2025	20:02	PO108990.D	8.76	3.70
AR1242ICC500	AR1242ICC500	01/21/2025	20:21	PO108991.D	8.76	3.70
AR1242ICC250	AR1242ICC250	01/21/2025	20:39	PO108992.D	8.76	3.70
AR1242ICC050	AR1242ICC050	01/21/2025	20:57	PO108993.D	8.76	3.70
AR1248ICC1000	AR1248ICC1000	01/21/2025	21:16	PO108994.D	8.76	3.70
AR1248ICC750	AR1248ICC750	01/21/2025	21:34	PO108995.D	8.76	3.70
AR1248ICC500	AR1248ICC500	01/21/2025	21:52	PO108996.D	8.76	3.70
AR1248ICC250	AR1248ICC250	01/21/2025	22:10	PO108997.D	8.76	3.70
AR1248ICC050	AR1248ICC050	01/21/2025	22:29	PO108998.D	8.76	3.70
AR1254ICC1000	AR1254ICC1000	01/21/2025	22:47	PO108999.D	8.76	3.70
AR1254ICC750	AR1254ICC750	01/21/2025	23:05	PO109000.D	8.76	3.70
AR1254ICC500	AR1254ICC500	01/21/2025	23:23	PO109001.D	8.76	3.70
AR1254ICC250	AR1254ICC250	01/21/2025	23:42	PO109002.D	8.76	3.70
AR1254ICC050	AR1254ICC050	01/22/2025	00:00	PO109003.D	8.76	3.70
AR1262ICC500	AR1262ICC500	01/22/2025	00:18	PO109004.D	8.76	3.70
AR1268ICC1000	AR1268ICC1000	01/22/2025	00:37	PO109005.D	8.76	3.70
AR1268ICC750	AR1268ICC750	01/22/2025	00:55	PO109006.D	8.76	3.70
AR1268ICC500	AR1268ICC500	01/22/2025	01:13	PO109007.D	8.76	3.70
AR1268ICC250	AR1268ICC250	01/22/2025	01:31	PO109008.D	8.76	3.70
AR1268ICC050	AR1268ICC050	01/22/2025	01:50	PO109009.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	09:16	PO109317.D	8.76	3.70
I.BLK	I.BLK	01/31/2025	10:29	PO109321.D	8.76	3.70
PB166412BL	PB166412BL	01/31/2025	11:35	PO109323.D	8.76	3.70
PB166412BS	PB166412BS	01/31/2025	11:53	PO109324.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	17:22	PO109331.D	8.76	3.70
I.BLK	I.BLK	01/31/2025	18:35	PO109335.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	22:43	PO109344.D	8.76	3.70
I.BLK	I.BLK	01/31/2025	23:57	PO109348.D	8.76	3.70
JPP-46.2-012925	Q1232-03	02/01/2025	00:15	PO109349.D	8.76	3.70
JPP-46.2-012925MS	Q1232-03MS	02/01/2025	00:33	PO109350.D	8.76	3.70
JPP-46.2-012925MSD	Q1232-03MSD	02/01/2025	00:51	PO109351.D	8.76	3.70
JPP-46.1-012925	Q1232-07	02/01/2025	01:09	PO109352.D	8.76	3.70
JPP-42.1-012925	Q1232-11	02/01/2025	01:27	PO109353.D	8.76	3.70

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Analytical Sequence

JPP-42.2-012925	Q1232-15	02/01/2025	01:46	PO109354.D	8.76	3.70
JPP-51.1-012925	Q1232-19	02/01/2025	02:04	PO109355.D	8.76	3.70
AR1660CCC500	AR1660CCC500	02/01/2025	06:43	PO109364.D	8.76	3.70
I.BLK	I.BLK	02/01/2025	07:01	PO109365.D	8.76	3.70
I.BLK	I.BLK	02/03/2025	17:58	PO109369.D	8.76	3.70
AR1660ICC1000	AR1660ICC1000	02/03/2025	18:17	PO109370.D	8.76	3.70
AR1660ICC750	AR1660ICC750	02/03/2025	18:35	PO109371.D	8.76	3.70
AR1660ICC500	AR1660ICC500	02/03/2025	18:53	PO109372.D	8.76	3.70
AR1660ICC250	AR1660ICC250	02/03/2025	19:12	PO109373.D	8.76	3.70
AR1660ICC050	AR1660ICC050	02/03/2025	19:30	PO109374.D	8.76	3.70
AR1221ICC500	AR1221ICC500	02/03/2025	19:49	PO109375.D	8.76	3.70
AR1232ICC500	AR1232ICC500	02/03/2025	20:07	PO109376.D	8.76	3.70
AR1242ICC1000	AR1242ICC1000	02/03/2025	20:25	PO109377.D	8.76	3.70
AR1242ICC750	AR1242ICC750	02/03/2025	20:44	PO109378.D	8.76	3.70
AR1242ICC500	AR1242ICC500	02/03/2025	21:02	PO109379.D	8.76	3.70
AR1242ICC250	AR1242ICC250	02/03/2025	21:19	PO109380.D	8.76	3.70
AR1242ICC050	AR1242ICC050	02/03/2025	21:38	PO109381.D	8.76	3.70
AR1248ICC1000	AR1248ICC1000	02/03/2025	21:56	PO109382.D	8.76	3.70
AR1248ICC750	AR1248ICC750	02/03/2025	22:14	PO109383.D	8.76	3.70
AR1248ICC500	AR1248ICC500	02/03/2025	22:32	PO109384.D	8.76	3.70
AR1248ICC250	AR1248ICC250	02/03/2025	22:50	PO109385.D	8.76	3.70
AR1248ICC050	AR1248ICC050	02/03/2025	23:08	PO109386.D	8.76	3.70
AR1254ICC1000	AR1254ICC1000	02/03/2025	23:27	PO109387.D	8.76	3.70
AR1254ICC750	AR1254ICC750	02/03/2025	23:45	PO109388.D	8.76	3.70
AR1254ICC500	AR1254ICC500	02/04/2025	00:03	PO109389.D	8.76	3.70
AR1254ICC250	AR1254ICC250	02/04/2025	00:22	PO109390.D	8.76	3.70
AR1254ICC050	AR1254ICC050	02/04/2025	00:40	PO109391.D	8.76	3.70
AR1262ICC500	AR1262ICC500	02/04/2025	00:58	PO109392.D	8.76	3.70
AR1268ICC1000	AR1268ICC1000	02/04/2025	01:17	PO109393.D	8.76	3.70
AR1268ICC750	AR1268ICC750	02/04/2025	01:35	PO109394.D	8.76	3.70
AR1268ICC500	AR1268ICC500	02/04/2025	01:54	PO109395.D	8.76	3.70
AR1268ICC250	AR1268ICC250	02/04/2025	02:12	PO109396.D	8.76	3.70
AR1268ICC050	AR1268ICC050	02/04/2025	02:30	PO109397.D	8.76	3.70
AR1660CCC500	AR1660CCC500	02/04/2025	08:32	PO109405.D	8.76	3.70
I.BLK	I.BLK	02/04/2025	08:51	PO109406.D	8.76	3.70
JPP-46.2-012925RE	Q1232-03RE	02/04/2025	09:09	PO109407.D	8.76	3.70
JPP-46.2-012925MSRE	Q1232-03MSRE	02/04/2025	09:27	PO109408.D	8.76	3.70
JPP-46.2-012925MSDRE	Q1232-03MSDRE	02/04/2025	09:46	PO109409.D	8.76	3.70
JPP-46.1-012925RE	Q1232-07RE	02/04/2025	10:04	PO109410.D	8.76	3.70
JPP-42.1-012925RE	Q1232-11RE	02/04/2025	10:22	PO109411.D	8.76	3.70
JPP-42.2-012925RE	Q1232-15RE	02/04/2025	10:40	PO109412.D	8.76	3.70
JPP-51.1-012925RE	Q1232-19RE	02/04/2025	10:59	PO109413.D	8.76	3.70
AR1660CCC500	AR1660CCC500	02/04/2025	13:58	PO109422.D	8.76	3.70
I.BLK	I.BLK	02/04/2025	14:16	PO109423.D	8.76	3.70

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_O

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	17:18	PO108981.D	8.71	3.70
AR1660ICC1000	AR1660ICC1000	01/21/2025	17:36	PO108982.D	8.71	3.70
AR1660ICC750	AR1660ICC750	01/21/2025	17:54	PO108983.D	8.71	3.70
AR1660ICC500	AR1660ICC500	01/21/2025	18:13	PO108984.D	8.73	3.72
AR1660ICC250	AR1660ICC250	01/21/2025	18:31	PO108985.D	8.71	3.70
AR1660ICC050	AR1660ICC050	01/21/2025	18:49	PO108986.D	8.71	3.70
AR1221ICC500	AR1221ICC500	01/21/2025	19:07	PO108987.D	8.71	3.70
AR1232ICC500	AR1232ICC500	01/21/2025	19:26	PO108988.D	8.71	3.70
AR1242ICC1000	AR1242ICC1000	01/21/2025	19:44	PO108989.D	8.71	3.70
AR1242ICC750	AR1242ICC750	01/21/2025	20:02	PO108990.D	8.71	3.70
AR1242ICC500	AR1242ICC500	01/21/2025	20:21	PO108991.D	8.71	3.70
AR1242ICC250	AR1242ICC250	01/21/2025	20:39	PO108992.D	8.71	3.70
AR1242ICC050	AR1242ICC050	01/21/2025	20:57	PO108993.D	8.71	3.70
AR1248ICC1000	AR1248ICC1000	01/21/2025	21:16	PO108994.D	8.71	3.70
AR1248ICC750	AR1248ICC750	01/21/2025	21:34	PO108995.D	8.71	3.70
AR1248ICC500	AR1248ICC500	01/21/2025	21:52	PO108996.D	8.71	3.70
AR1248ICC250	AR1248ICC250	01/21/2025	22:10	PO108997.D	8.71	3.70
AR1248ICC050	AR1248ICC050	01/21/2025	22:29	PO108998.D	8.71	3.70
AR1254ICC1000	AR1254ICC1000	01/21/2025	22:47	PO108999.D	8.71	3.70
AR1254ICC750	AR1254ICC750	01/21/2025	23:05	PO109000.D	8.71	3.70
AR1254ICC500	AR1254ICC500	01/21/2025	23:23	PO109001.D	8.71	3.70
AR1254ICC250	AR1254ICC250	01/21/2025	23:42	PO109002.D	8.71	3.70
AR1254ICC050	AR1254ICC050	01/22/2025	00:00	PO109003.D	8.71	3.70
AR1262ICC500	AR1262ICC500	01/22/2025	00:18	PO109004.D	8.71	3.70
AR1268ICC1000	AR1268ICC1000	01/22/2025	00:37	PO109005.D	8.71	3.70
AR1268ICC750	AR1268ICC750	01/22/2025	00:55	PO109006.D	8.71	3.70
AR1268ICC500	AR1268ICC500	01/22/2025	01:13	PO109007.D	8.71	3.70
AR1268ICC250	AR1268ICC250	01/22/2025	01:31	PO109008.D	8.71	3.70
AR1268ICC050	AR1268ICC050	01/22/2025	01:50	PO109009.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	09:16	PO109317.D	8.71	3.69
I.BLK	I.BLK	01/31/2025	10:29	PO109321.D	8.71	3.70
PB166412BL	PB166412BL	01/31/2025	11:35	PO109323.D	8.71	3.70
PB166412BS	PB166412BS	01/31/2025	11:53	PO109324.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	17:22	PO109331.D	8.71	3.70
I.BLK	I.BLK	01/31/2025	18:35	PO109335.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	22:43	PO109344.D	8.71	3.70
I.BLK	I.BLK	01/31/2025	23:57	PO109348.D	8.71	3.70
JPP-46.2-012925	Q1232-03	02/01/2025	00:15	PO109349.D	8.71	3.70
JPP-46.2-012925MS	Q1232-03MS	02/01/2025	00:33	PO109350.D	8.71	3.70
JPP-46.2-012925MSD	Q1232-03MSD	02/01/2025	00:51	PO109351.D	8.71	3.70
JPP-46.1-012925	Q1232-07	02/01/2025	01:09	PO109352.D	8.71	3.70
JPP-42.1-012925	Q1232-11	02/01/2025	01:27	PO109353.D	8.71	3.70

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Analytical Sequence

JPP-42.2-012925	Q1232-15	02/01/2025	01:46	PO109354.D	8.71	3.70
JPP-51.1-012925	Q1232-19	02/01/2025	02:04	PO109355.D	8.71	3.70
AR1660CCC500	AR1660CCC500	02/01/2025	06:43	PO109364.D	8.71	3.70
I.BLK	I.BLK	02/01/2025	07:01	PO109365.D	8.71	3.70
I.BLK	I.BLK	02/03/2025	17:58	PO109369.D	8.71	3.70
AR1660ICC1000	AR1660ICC1000	02/03/2025	18:17	PO109370.D	8.71	3.70
AR1660ICC750	AR1660ICC750	02/03/2025	18:35	PO109371.D	8.71	3.70
AR1660ICC500	AR1660ICC500	02/03/2025	18:53	PO109372.D	8.71	3.70
AR1660ICC250	AR1660ICC250	02/03/2025	19:12	PO109373.D	8.71	3.70
AR1660ICC050	AR1660ICC050	02/03/2025	19:30	PO109374.D	8.71	3.69
AR1221ICC500	AR1221ICC500	02/03/2025	19:49	PO109375.D	8.71	3.70
AR1232ICC500	AR1232ICC500	02/03/2025	20:07	PO109376.D	8.71	3.70
AR1242ICC1000	AR1242ICC1000	02/03/2025	20:25	PO109377.D	8.71	3.70
AR1242ICC750	AR1242ICC750	02/03/2025	20:44	PO109378.D	8.71	3.70
AR1242ICC500	AR1242ICC500	02/03/2025	21:02	PO109379.D	8.71	3.69
AR1242ICC250	AR1242ICC250	02/03/2025	21:19	PO109380.D	8.71	3.69
AR1242ICC050	AR1242ICC050	02/03/2025	21:38	PO109381.D	8.71	3.69
AR1248ICC1000	AR1248ICC1000	02/03/2025	21:56	PO109382.D	8.71	3.69
AR1248ICC750	AR1248ICC750	02/03/2025	22:14	PO109383.D	8.71	3.69
AR1248ICC500	AR1248ICC500	02/03/2025	22:32	PO109384.D	8.71	3.69
AR1248ICC250	AR1248ICC250	02/03/2025	22:50	PO109385.D	8.71	3.69
AR1248ICC050	AR1248ICC050	02/03/2025	23:08	PO109386.D	8.71	3.69
AR1254ICC1000	AR1254ICC1000	02/03/2025	23:27	PO109387.D	8.71	3.70
AR1254ICC750	AR1254ICC750	02/03/2025	23:45	PO109388.D	8.71	3.70
AR1254ICC500	AR1254ICC500	02/04/2025	00:03	PO109389.D	8.71	3.70
AR1254ICC250	AR1254ICC250	02/04/2025	00:22	PO109390.D	8.71	3.70
AR1254ICC050	AR1254ICC050	02/04/2025	00:40	PO109391.D	8.71	3.69
AR1262ICC500	AR1262ICC500	02/04/2025	00:58	PO109392.D	8.71	3.70
AR1268ICC1000	AR1268ICC1000	02/04/2025	01:17	PO109393.D	8.71	3.70
AR1268ICC750	AR1268ICC750	02/04/2025	01:35	PO109394.D	8.71	3.70
AR1268ICC500	AR1268ICC500	02/04/2025	01:54	PO109395.D	8.71	3.70
AR1268ICC250	AR1268ICC250	02/04/2025	02:12	PO109396.D	8.71	3.70
AR1268ICC050	AR1268ICC050	02/04/2025	02:30	PO109397.D	8.71	3.69
AR1660CCC500	AR1660CCC500	02/04/2025	08:32	PO109405.D	8.71	3.70
I.BLK	I.BLK	02/04/2025	08:51	PO109406.D	8.71	3.69
JPP-46.2-012925RE	Q1232-03RE	02/04/2025	09:09	PO109407.D	8.71	3.70
JPP-46.2-012925MSRE	Q1232-03MSRE	02/04/2025	09:27	PO109408.D	8.71	3.69
JPP-46.2-012925MSDRE	Q1232-03MSDRE	02/04/2025	09:46	PO109409.D	8.71	3.69
JPP-46.1-012925RE	Q1232-07RE	02/04/2025	10:04	PO109410.D	8.71	3.69
JPP-42.1-012925RE	Q1232-11RE	02/04/2025	10:22	PO109411.D	8.71	3.69
JPP-42.2-012925RE	Q1232-15RE	02/04/2025	10:40	PO109412.D	8.72	3.71
JPP-51.1-012925RE	Q1232-19RE	02/04/2025	10:59	PO109413.D	8.71	3.69
AR1660CCC500	AR1660CCC500	02/04/2025	13:58	PO109422.D	8.71	3.69
I.BLK	I.BLK	02/04/2025	14:16	PO109423.D	8.71	3.70

QC SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166412BL	SDG No.:	Q1232
Lab Sample ID:	PB166412BL	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109323.D	1	01/31/25 08:15	01/31/25 11:35	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	17.0	U	3.40	17.0	ug/kg
11104-28-2	Aroclor-1221	17.0	U	6.40	17.0	ug/kg
11141-16-5	Aroclor-1232	17.0	U	3.40	17.0	ug/kg
53469-21-9	Aroclor-1242	17.0	U	3.40	17.0	ug/kg
12672-29-6	Aroclor-1248	17.0	U	7.90	17.0	ug/kg
11097-69-1	Aroclor-1254	17.0	U	2.70	17.0	ug/kg
37324-23-5	Aroclor-1262	17.0	U	4.60	17.0	ug/kg
11100-14-4	Aroclor-1268	17.0	U	3.40	17.0	ug/kg
11096-82-5	Aroclor-1260	17.0	U	2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	24.1		32 - 144	120%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.0		32 - 175	105%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PO108981.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO108981.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108981.D	1		01/21/25	PO012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.6		60 - 140	103%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		60 - 140	108%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PO109321.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109321.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109321.D	1		01/31/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.1		60 - 140	95%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.8		60 - 140	89%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
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LOD = Limit of Detection
E = Value Exceeds Calibration Range
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Q = indicates LCS control criteria did not meet requirements
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* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PO109335.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109335.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109335.D	1		01/31/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.7		60 - 140	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.1		60 - 140	81%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PO109348.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109348.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109348.D	1		01/31/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.8		60 - 140	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.1		60 - 140	85%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/01/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/01/25
Client Sample ID:	PIBLK-PO109365.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109365.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109365.D	1		02/01/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.8		60 - 140	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.4		60 - 140	67%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PO109369.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109369.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109369.D	1		02/03/25	PO020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.1		60 - 140	101%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.4		60 - 140	107%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PO109406.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109406.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109406.D	1		02/04/25	PO020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.0		60 - 140	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.0		60 - 140	115%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PO109423.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PO109423.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109423.D	1		02/04/25	PO020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.1		60 - 140	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.5		60 - 140	78%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166412BS	SDG No.:	Q1232
Lab Sample ID:	PB166412BS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109324.D	1	01/31/25 08:15	01/31/25 11:53	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	162		3.40	17.0	ug/kg
11104-28-2	Aroclor-1221	17.0	U	6.40	17.0	ug/kg
11141-16-5	Aroclor-1232	17.0	U	3.40	17.0	ug/kg
53469-21-9	Aroclor-1242	17.0	U	3.40	17.0	ug/kg
12672-29-6	Aroclor-1248	17.0	U	7.90	17.0	ug/kg
11097-69-1	Aroclor-1254	17.0	U	2.70	17.0	ug/kg
37324-23-5	Aroclor-1262	17.0	U	4.60	17.0	ug/kg
11100-14-4	Aroclor-1268	17.0	U	3.40	17.0	ug/kg
11096-82-5	Aroclor-1260	149		2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.1		32 - 144	116%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.8		32 - 175	109%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MS	SDG No.:	Q1232
Lab Sample ID:	Q1232-03MS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109350.D	1	01/31/25 08:15	02/01/25 00:33	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	185		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	175		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.5		32 - 144	112%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.9		32 - 175	100%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MSRE	SDG No.:	Q1232
Lab Sample ID:	Q1232-03MSRE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109408.D	1	01/31/25 08:15	02/04/25 09:27	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	170		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	170		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.0		32 - 144	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.9		32 - 175	114%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MSD	SDG No.:	Q1232
Lab Sample ID:	Q1232-03MSD	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109351.D	1	01/31/25 08:15	02/01/25 00:51	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	183		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	173		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.3		32 - 144	112%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.0		32 - 175	100%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MSDRE	SDG No.:	Q1232
Lab Sample ID:	Q1232-03MSDRE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109409.D	1	01/31/25 08:15	02/04/25 09:46	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	167		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	167		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.8		32 - 144	104%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.8		32 - 175	114%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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LAB CHRONICLE

Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: **0.000**

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PB166356TB	SDG No.:	Q1232
Lab Sample ID:	PB166356TB	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029024.D	1	01/31/25 10:55	01/31/25 23:32	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	467		39 - 175	93%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-04	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029036.D	1	01/31/25 10:55	02/01/25 05:08	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	493		39 - 175	99%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-08	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029037.D	1	01/31/25 10:55	02/01/25 05:32	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	495		39 - 175	99%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-12	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029038.D	1	01/31/25 10:55	02/01/25 05:56	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	518		39 - 175	104%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-16	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029039.D	1	01/31/25 10:55	02/01/25 06:20	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	524		39 - 175	105%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-20	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029040.D	1	01/31/25 10:55	02/01/25 06:44	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	495		39 - 175	99%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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Surrogate Summary

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PS028900.D	PIBLK-PS028900.D	2,4-DCAA	1	500	474	95		39	175
		2,4-DCAA	2	500	492	98		39	175
I.BLK-PS029019.D	PIBLK-PS029019.D	2,4-DCAA	1	500	581	116		39	175
		2,4-DCAA	2	500	551	110		39	175
PB166428BL	PB166428BL	2,4-DCAA	1	500	477	95		39	175
		2,4-DCAA	2	500	427	85		39	175
PB166428BS	PB166428BS	2,4-DCAA	1	500	543	109		39	175
		2,4-DCAA	2	500	489	98		39	175
PB166356TB	PB166356TB	2,4-DCAA	1	500	467	93		39	175
		2,4-DCAA	2	500	326	65		39	175
Q1215-04MS	JPP-29.1-012825MS	2,4-DCAA	1	500	591	118		39	175
		2,4-DCAA	2	500	363	73		39	175
Q1215-04MSD	JPP-29.1-012825MSD	2,4-DCAA	1	500	592	118		39	175
		2,4-DCAA	2	500	364	73		39	175
I.BLK-PS029031.D	PIBLK-PS029031.D	2,4-DCAA	1	500	584	117		39	175
		2,4-DCAA	2	500	554	111		39	175
Q1232-04	JPP-46.2-012925	2,4-DCAA	1	500	493	99		39	175
		2,4-DCAA	2	500	290	58		39	175
Q1232-08	JPP-46.1-012925	2,4-DCAA	1	500	495	99		39	175
		2,4-DCAA	2	500	308	62		39	175
Q1232-12	JPP-42.1-012925	2,4-DCAA	1	500	518	104		39	175
		2,4-DCAA	2	500	308	62		39	175
Q1232-16	JPP-42.2-012925	2,4-DCAA	1	500	524	105		39	175
		2,4-DCAA	2	500	340	68		39	175
Q1232-20	JPP-51.1-012925	2,4-DCAA	1	500	495	99		39	175
		2,4-DCAA	2	500	327	65		39	175
I.BLK-PS029043.D	PIBLK-PS029043.D	2,4-DCAA	1	500	572	114		39	175
		2,4-DCAA	2	500	551	110		39	175

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8151A **DataFile :** PS029026.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**JPP-29.1-012825MS**											
Q1215-04MS	2,4-D	50	0	52.4	ug/L	105				65	135	
	2,4,5-TP(Silvex)	50	0	63.5	ug/L	127				62	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8151A **DataFile :** PS029027.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**JPP-29.1-012825MSD**											
Q1215-04MSD	2,4-D	50	0	52.5	ug/L	105		0		65	135	20
	2,4,5-TP(Silvex)	50	0	63.8	ug/L	128		1		62	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1232

Client: RU2 Engineering, LLC

Analytical Method: 8151A **Datafile :** PS029023.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166428BS	2,4-D	5	5.20	ug/L	104				83	130	
	2,4,5-TP(Silvex)	5	5.30	ug/L	106				78	127	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166428BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab Sample ID: PB166428BL Lab File ID: PS029022.D

Matrix: (soil/water) water Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 01/31/2025

Date Analyzed (1): 01/31/2025 Date Analyzed (2): 01/31/2025

Time Analyzed (1): 22:44 Time Analyzed (2): 22:44

Instrument ID (1): ECD_S Instrument ID (2): ECD_S

GC Column (1): RTX-CLP ID: 0.32 (mm) GC Column (2): RTX-CLP2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166428BS	PB166428BS	PS029023.D	01/31/2025	01/31/2025
PB166356TB	PB166356TB	PS029024.D	01/31/2025	01/31/2025
JPP-29.1-012825MS	Q1215-04MS	PS029026.D	02/01/2025	02/01/2025
JPP-29.1-012825MSD	Q1215-04MSD	PS029027.D	02/01/2025	02/01/2025
JPP-46.2-012925	Q1232-04	PS029036.D	02/01/2025	02/01/2025
JPP-46.1-012925	Q1232-08	PS029037.D	02/01/2025	02/01/2025
JPP-42.1-012925	Q1232-12	PS029038.D	02/01/2025	02/01/2025
JPP-42.2-012925	Q1232-16	PS029039.D	02/01/2025	02/01/2025
JPP-51.1-012925	Q1232-20	PS029040.D	02/01/2025	02/01/2025

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166428BL	SDG No.:	Q1232
Lab Sample ID:	PB166428BL	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029022.D	1	01/31/25 10:55	01/31/25 22:44	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	477		39 - 175	95%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/14/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/14/25
Client Sample ID:	PIBLK-PS028900.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PS028900.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028900.D	1		01/14/25	PS011425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	492		39 - 175	98%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PS029019.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PS029019.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029019.D	1		01/31/25	PS013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	581		39 - 175	116%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/01/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/01/25
Client Sample ID:	PIBLK-PS029031.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PS029031.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029031.D	1		02/01/25	PS013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	584		39 - 175	117%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/01/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/01/25
Client Sample ID:	PIBLK-PS029043.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-PS029043.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029043.D	1		02/01/25	PS013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	572		39 - 175	114%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166428BS	SDG No.:	Q1232
Lab Sample ID:	PB166428BS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029023.D	1	01/31/25 10:55	01/31/25 23:08	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	5.20		0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	5.30		0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	543		39 - 175	109%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MS	SDG No.:	Q1232
Lab Sample ID:	Q1215-04MS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029026.D	1	01/31/25 10:55	02/01/25 00:20	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	52.4		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	63.5		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	591		39 - 175	118%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1232
Lab Sample ID:	Q1215-04MSD	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029027.D	1	01/31/25 10:55	02/01/25 00:44	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	52.5		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	63.8		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	592		39 - 175	118%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID: RT 200 = PS028901.D RT 500 = PS028902.D

RT 750 = PS028903.D RT 1000 = PS028904.D RT 1500 = PS028905.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4,5-TP(Silvex)	9.19	9.19	9.19	9.19	9.19	9.19	9.09	9.29
2,4-D	8.32	8.32	8.32	8.32	8.32	8.32	8.22	8.42
2,4-DCAA	7.20	7.20	7.20	7.20	7.20	7.20	7.10	7.30

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP2 ID: 0.32 (mm)

LAB FILE ID: RT 200 = PS028901.D RT 500 = PS028902.D

RT 750 = PS028903.D RT 1000 = PS028904.D RT 1500 = PS028905.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4,5-TP(Silvex)	9.81	9.81	9.81	9.81	9.81	9.81	9.71	9.91
2,4-D	8.92	8.91	8.91	8.91	8.91	8.91	8.81	9.01
2,4-DCAA	7.68	7.68	7.68	7.68	7.68	7.68	7.58	7.78

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 200 =** PS028901.D **CF 500 =** PS028902.D

CF 750 = PS028903.D **CF 1000 =** PS028904.D **CF 1500 =** PS028905.D

COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	21246200000	19217800000	18444300000	17622300000	16707400000	18647600000	9
2,4-D	3794730000	3389210000	3238030000	3095840000	2967500000	3297060000	10
2,4-DCAA	3179220000	2766210000	2659700000	2530920000	2413760000	2709960000	11

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 (mm)

LAB FILE ID: **CF 200 =** PS028901.D **CF 500 =** PS028902.D

CF 750 = PS028903.D **CF 1000 =** PS028904.D **CF 1500 =** PS028905.D

COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	9615710000	9419870000	9409010000	9233020000	9015720000	9338670000	2
2,4-D	1602310000	1486700000	1468930000	1440130000	1429250000	1485460000	5
2,4-DCAA	1189550000	1103610000	1095350000	1074740000	1070080000	1106670000	4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 21:08 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.20	7.20	7.10	7.30	0.00
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 21:08 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.91	8.91	8.81	9.01	0.00
2,4,5-TP(Silvex)	9.81	9.81	9.71	9.91	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029020.D **Time Analyzed:** 21:08

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.184	9.089	9.289	724.050	712.500	1.6
2,4-D	8.312	8.216	8.416	712.460	705.000	1.1
2,4-DCAA	7.195	7.097	7.297	747.480	750.000	-0.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029020.D **Time Analyzed:** 21:08

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.806	9.713	9.913	721.210	712.500	1.2
2,4-D	8.907	8.813	9.013	668.490	705.000	-5.2
2,4-DCAA	7.672	7.577	7.777	698.680	750.000	-6.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 02:44 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 02:44 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.91	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.81	9.81	9.71	9.91	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/01/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029032.D **Time Analyzed:** 02:44

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.184	9.089	9.289	733.590	712.500	3.0
2,4-D	8.311	8.216	8.416	716.460	705.000	1.6
2,4-DCAA	7.194	7.097	7.297	756.460	750.000	0.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/01/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029032.D **Time Analyzed:** 02:44

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.805	9.713	9.913	726.680	712.500	2.0
2,4-D	8.905	8.813	9.013	678.220	705.000	-3.8
2,4-DCAA	7.671	7.577	7.777	701.780	750.000	-6.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 08:44 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 08:44 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.91	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.80	9.81	9.71	9.91	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/01/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029044.D **Time Analyzed:** 08:44

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.181	9.089	9.289	707.890	712.500	-0.6
2,4-D	8.310	8.216	8.416	689.110	705.000	-2.3
2,4-DCAA	7.192	7.097	7.297	732.720	750.000	-2.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/01/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029044.D **Time Analyzed:** 08:44

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.803	9.713	9.913	711.120	712.500	-0.2
2,4-D	8.905	8.813	9.013	659.830	705.000	-6.4
2,4-DCAA	7.670	7.577	7.777	685.780	750.000	-8.6

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_S

GC Column: RTX-CLP **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/14/2025 01/14/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
I.BLK	I.BLK	01/14/2025	10:07	PS028900.D	7.20	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.20	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.20	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.20	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.20	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.20	0.00
I.BLK	I.BLK	01/31/2025	20:44	PS029019.D	7.20	0.00
HSTDCCC750	HSTDCCC750	01/31/2025	21:08	PS029020.D	7.20	0.00
PB166428BL	PB166428BL	01/31/2025	22:44	PS029022.D	7.19	0.00
PB166428BS	PB166428BS	01/31/2025	23:08	PS029023.D	7.20	0.00
PB166356TB	PB166356TB	01/31/2025	23:32	PS029024.D	7.20	0.00
JPP-29.1-012825MS	Q1215-04MS	02/01/2025	00:20	PS029026.D	7.20	0.00
JPP-29.1-012825MSD	Q1215-04MSD	02/01/2025	00:44	PS029027.D	7.20	0.00
I.BLK	I.BLK	02/01/2025	02:20	PS029031.D	7.20	0.00
HSTDCCC750	HSTDCCC750	02/01/2025	02:44	PS029032.D	7.19	0.00
JPP-46.2-012925	Q1232-04	02/01/2025	05:08	PS029036.D	7.19	0.00
JPP-46.1-012925	Q1232-08	02/01/2025	05:32	PS029037.D	7.20	0.00
JPP-42.1-012925	Q1232-12	02/01/2025	05:56	PS029038.D	7.19	0.00
JPP-42.2-012925	Q1232-16	02/01/2025	06:20	PS029039.D	7.20	0.00
JPP-51.1-012925	Q1232-20	02/01/2025	06:44	PS029040.D	7.19	0.00
I.BLK	I.BLK	02/01/2025	07:56	PS029043.D	7.19	0.00
HSTDCCC750	HSTDCCC750	02/01/2025	08:44	PS029044.D	7.19	0.00

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_S

GC Column: RTX-CLP2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/14/2025 01/14/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
I.BLK	I.BLK	01/14/2025	10:07	PS028900.D	7.68	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.68	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.68	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.68	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.68	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.68	0.00
I.BLK	I.BLK	01/31/2025	20:44	PS029019.D	7.67	0.00
HSTDCCC750	HSTDCCC750	01/31/2025	21:08	PS029020.D	7.67	0.00
PB166428BL	PB166428BL	01/31/2025	22:44	PS029022.D	7.67	0.00
PB166428BS	PB166428BS	01/31/2025	23:08	PS029023.D	7.67	0.00
PB166356TB	PB166356TB	01/31/2025	23:32	PS029024.D	7.67	0.00
JPP-29.1-012825MS	Q1215-04MS	02/01/2025	00:20	PS029026.D	7.67	0.00
JPP-29.1-012825MSD	Q1215-04MSD	02/01/2025	00:44	PS029027.D	7.67	0.00
I.BLK	I.BLK	02/01/2025	02:20	PS029031.D	7.67	0.00
HSTDCCC750	HSTDCCC750	02/01/2025	02:44	PS029032.D	7.67	0.00
JPP-46.2-012925	Q1232-04	02/01/2025	05:08	PS029036.D	7.67	0.00
JPP-46.1-012925	Q1232-08	02/01/2025	05:32	PS029037.D	7.67	0.00
JPP-42.1-012925	Q1232-12	02/01/2025	05:56	PS029038.D	7.67	0.00
JPP-42.2-012925	Q1232-16	02/01/2025	06:20	PS029039.D	7.67	0.00
JPP-51.1-012925	Q1232-20	02/01/2025	06:44	PS029040.D	7.67	0.00
I.BLK	I.BLK	02/01/2025	07:56	PS029043.D	7.67	0.00
HSTDCCC750	HSTDCCC750	02/01/2025	08:44	PS029044.D	7.67	0.00

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1215-04MS **Date(s) Analyzed:** 02/01/2025 02/01/2025

Instrument ID (1): ECD_S **Instrument ID (2):** ECD_S

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	52.4	9
	2	8.91	8.86	8.96	47.9	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	50.6	22.6
	2	9.81	9.76	9.86	63.5	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: Q1215-04MSD **Date(s) Analyzed:** 02/01/2025 02/01/2025

Instrument ID (1): ECD_S **Instrument ID (2):** ECD_S

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	52.5	9
	2	8.91	8.86	8.96	48.0	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	50.4	23.5
	2	9.81	9.76	9.86	63.8	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166428BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1232 **SAS No.:** Q1232 **SDG NO.:** Q1232

Lab Sample ID: PB166428BS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_S **Instrument ID (2):** ECD_S

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	5.20	10.1
	2	8.91	8.86	8.96	4.70	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	5.30	5.8
	2	9.81	9.76	9.86	5.00	

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-01	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-05	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-09	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-13	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	

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LAB CHRONICLE

Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1232-17	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.7 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015284.D	10	01/31/25 08:50	01/31/25 18:11	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	147000		2060	18500	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	2.33		37 - 130	116%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	93.8 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015285.D	10	01/31/25 08:50	01/31/25 18:39	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	62900		1970	17700	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.11		37 - 130	56%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-09	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	88.6 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015286.D	10	01/31/25 08:50	01/31/25 19:08	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	116000		2090	18800	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.38		37 - 130	69%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-13	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	92.1 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015287.D	10	01/31/25 08:50	01/31/25 19:36	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	135000		2010	18100	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.84		37 - 130	92%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-17	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	94.4 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015288.D	10	01/31/25 08:50	01/31/25 20:05	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	133000		1960	17600	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.91		37 - 130	95%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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Fax : 908 789 8922

SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FE052167.D	90				0
PIBLK-FE052179.D	82				0
PIBLK-FE052189.D	87				0
PIBLK-FG015282.D	83				0
PIBLK-FG015291.D	80				0
PB166415BL	87				0
PB166415BS	94				0
JPP-46.2-012925	116				0
JPP-46.1-012925	56				0
JPP-42.1-012925	69				0
JPP-42.2-012925	92				0
JPP-51.1-012925	95				0
JPP-5.3-013025MS	64				0
JPP-5.3-013025MSD	62				0

	QC LIMITS
TETRACOSANE-d50	For Water : 29-130 For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1232 **SAS No :** Q1232 **SDG No:** Q1232

Client SampleID : JPP-5.3-013025MS **Datafile:** FE052181.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7453	168000	150000	-242%	*	68-131

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Fax : 908 789 8922

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1232 **SAS No :** Q1232 **SDG No:** Q1232

Client SampleID : JPP-5.3-013025MSD **Datafile:** FE052182.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7460	168000	152000	-214%	*	68-131

MS/MSD % Recovery RPD : 12.28

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SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1232 **SAS No :** Q1232 **SDG No:** Q1232

Matrix Spike - EPA Sample No : PB166415BS **Datafile:** FE052172.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6660	0	6353	95	68-131

Alliance TECHNICAL GROUP
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4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.
PB166415BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG NO.: Q1232

Lab File ID: FE052171.D Lab Sample ID: PB166415BL

Instrument ID: FE Date Extracted: 01/31/2025

Matrix: (soil/water) Soil Date Analyzed: 01/31/25

Level: (low/med) low Time Analyzed: 12:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166415BS	PB166415BS	FE052172.D	01/31/25
JPP-5.3-013025MS	Q1241-05MS	FE052181.D	01/31/25
JPP-5.3-013025MSD	Q1241-05MSD	FE052182.D	01/31/25
JPP-46.2-012925	Q1232-01	FG015284.D	01/31/25
JPP-46.1-012925	Q1232-05	FG015285.D	01/31/25
JPP-42.1-012925	Q1232-09	FG015286.D	01/31/25
JPP-42.2-012925	Q1232-13	FG015287.D	01/31/25
JPP-51.1-012925	Q1232-17	FG015288.D	01/31/25

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166415BL	SDG No.:	Q1232
Lab Sample ID:	PB166415BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052171.D	1	01/31/25 08:50	01/31/25 12:08	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1670	U	185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.4		37 - 130	87%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052167.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-FE052167.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052167.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	18.1		29 - 130	90%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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M = MS/MSD acceptance criteria did not meet requirements

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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052179.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-FE052179.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052179.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.3		29 - 130	82%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052189.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-FE052189.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052189.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.5		29 - 130	87%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FG015282.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-FG015282.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015282.D	1		01/31/25	FG013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.6		29 - 130	83%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FG015291.D	SDG No.:	Q1232
Lab Sample ID:	I.BLK-FG015291.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015291.D	1		01/31/25	FG013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.9		29 - 130	80%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166415BS	SDG No.:	Q1232
Lab Sample ID:	PB166415BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052172.D	1	01/31/25 08:50	01/31/25 12:38	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	6350		185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.8		37 - 130	94%	SPK: 20

Comments:

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MDL = Method Detection Limit
LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025MS	SDG No.:	Q1232
Lab Sample ID:	Q1241-05MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052181.D	1	01/31/25 08:50	01/31/25 17:10	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	150000	E	207	1860	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.8		37 - 130	64%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025MSD	SDG No.:	Q1232
Lab Sample ID:	Q1241-05MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052182.D	1	01/31/25 08:50	01/31/25 17:40	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	152000	E	207	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.4		37 - 130	62%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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Fax : 908 789 8922

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Calibration Sequence : FE012325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1000	100840417	100840	FE052027.D
500	49711032	99422	FE052028.D
200	20907011	104535	FE052029.D
100	11272495	112725	FE052030.D
50	5669298	113386	FE052031.D
AVG RF : 106182	**% RSD : 6.169**		**AVG RT : 15.2554**

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.260	9326838	100.174 ug/ml
	Target Compounds			
1)	N-OCTANE	2.414	8352750	103.369 ug/ml
2)	N-DECANE	4.910	8964173	103.553 ug/ml
3)	N-DODECANE	7.039	9720116	103.116 ug/ml
4)	N-TETRADECANE	8.845	9800969	102.624 ug/ml
5)	N-HEXADECANE	10.439	10191868	102.144 ug/ml
6)	N-OCTADECANE	11.873	10670149	101.681 ug/ml
7)	N-EICOSANE	13.174	10511987	101.149 ug/ml
8)	N-DOCOSANE	14.367	10414135	100.677 ug/ml
10)	N-TETRACOSANE	15.465	10358861	100.274 ug/ml
11)	N-HEXACOSANE	16.482	10187153	100.078 ug/ml
12)	N-OCTACOSANE	17.429	10021006	99.509 ug/ml
13)	N-TRIACONTANE	18.313	9878203	99.283 ug/ml
14)	N-DOTRIACONTANE	19.143	9582276	99.145 ug/ml
15)	N-TETRATRIACONTANE	19.925	8712926	100.310 ug/ml
16)	N-HEXATRIACONTANE	20.662	7584514	101.793 ug/ml
17)	N-OCTATRIACONTANE	21.449	7106830	103.214 ug/ml
18)	N-TETRACONTANE	22.450	7068311	105.034 ug/ml

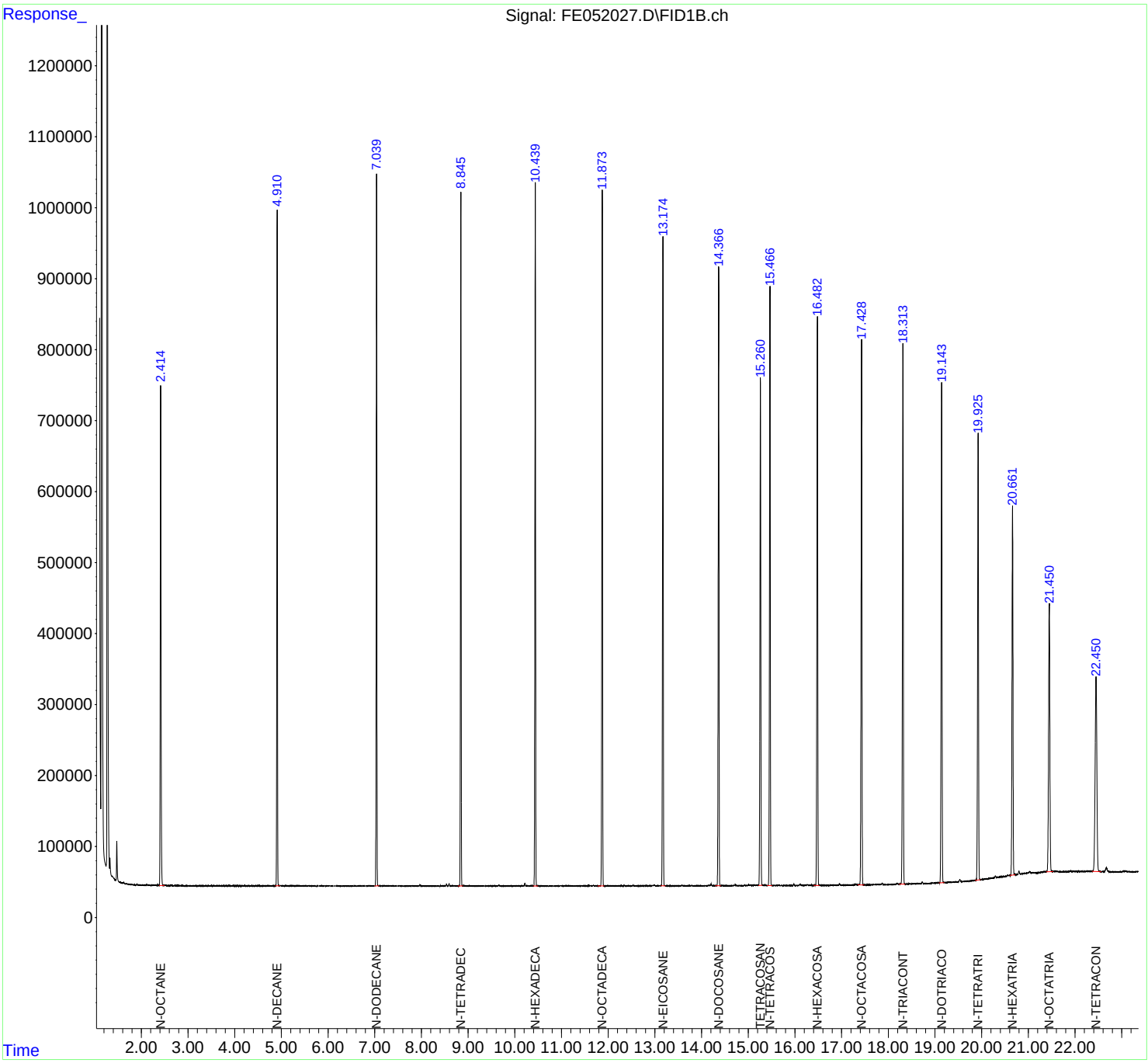
(f)=RT Delta > 1/2 Window (m)=manual int.

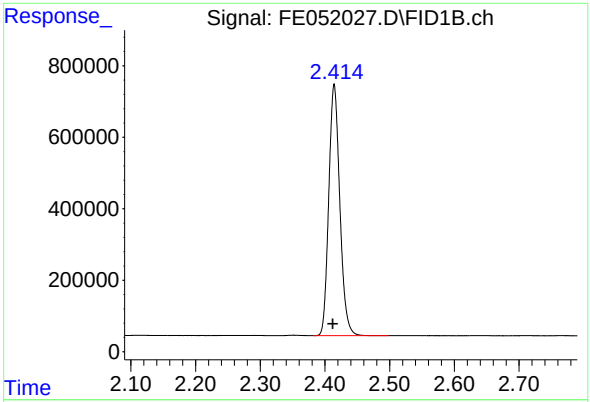
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

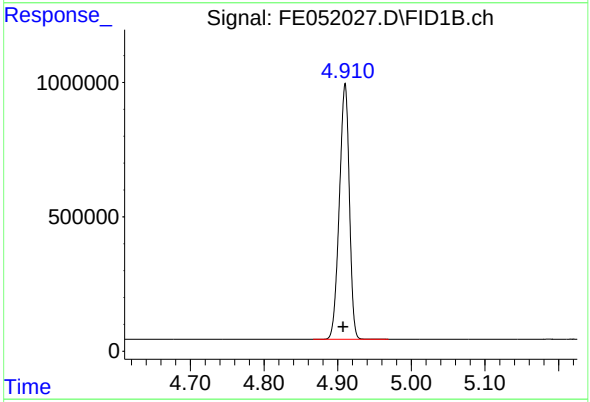




#1 N-OCTANE

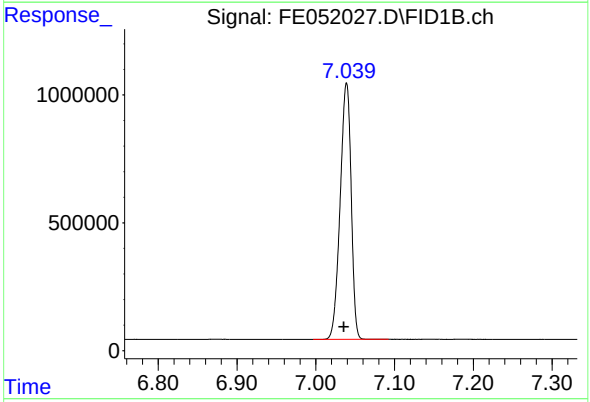
R.T.: 2.414 min
Delta R.T.: 0.002 min
Response: 8352750
Conc: 103.37 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



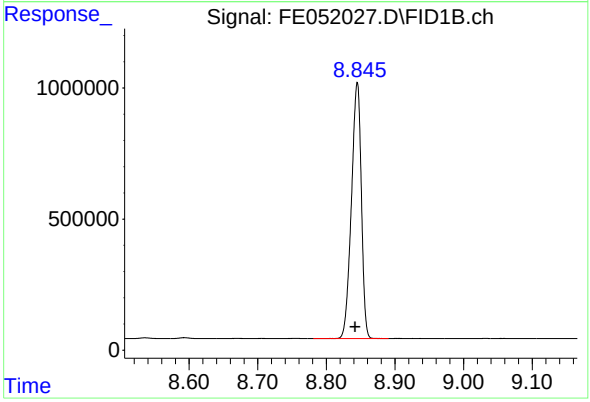
#2 N-DECANE

R.T.: 4.910 min
Delta R.T.: 0.003 min
Response: 8964173
Conc: 103.55 ug/ml



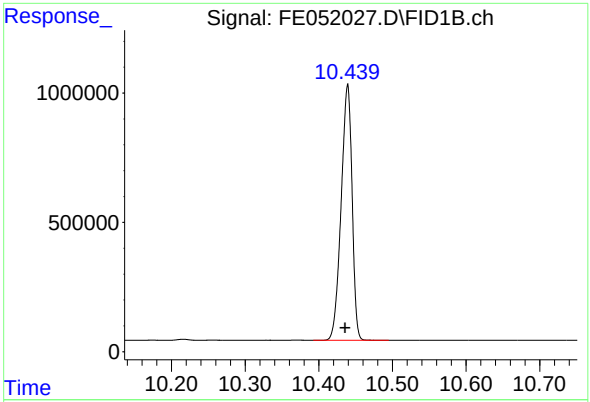
#3 N-DODECANE

R.T.: 7.039 min
Delta R.T.: 0.003 min
Response: 9720116
Conc: 103.12 ug/ml



#4 N-TETRADECANE

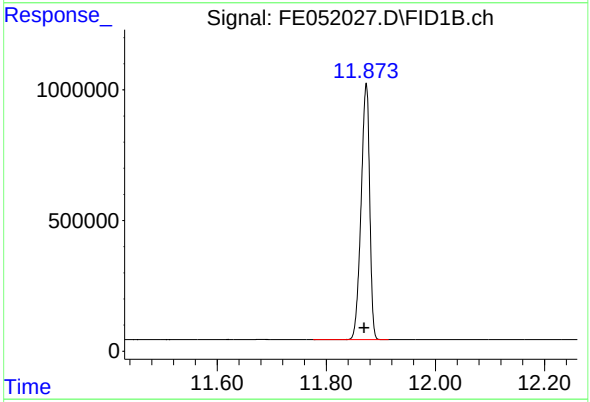
R.T.: 8.845 min
Delta R.T.: 0.003 min
Response: 9800969
Conc: 102.62 ug/ml



#5 N-HEXADECANE

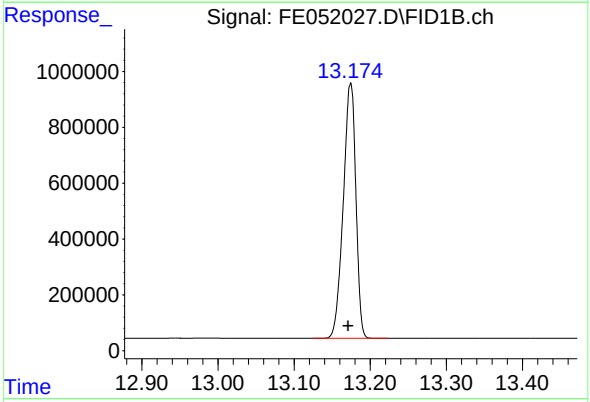
R.T.: 10.439 min
Delta R.T.: 0.004 min
Response: 10191868
Conc: 102.14 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



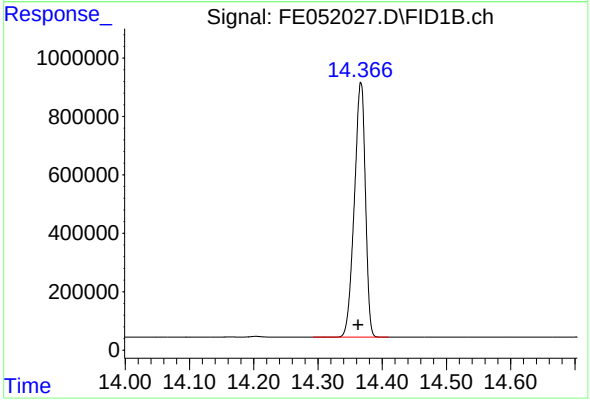
#6 N-OCTADECANE

R.T.: 11.873 min
Delta R.T.: 0.004 min
Response: 10670149
Conc: 101.68 ug/ml



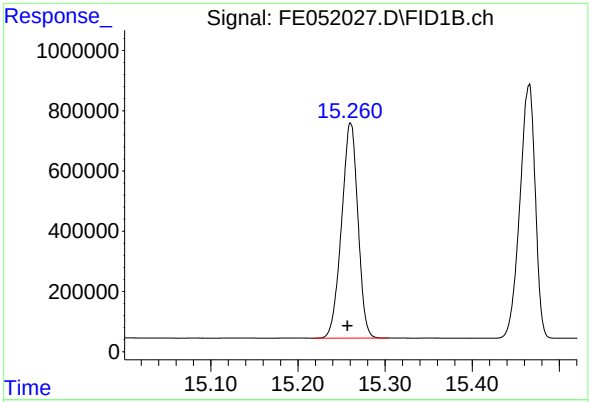
#7 N-EICOSANE

R.T.: 13.174 min
Delta R.T.: 0.003 min
Response: 10511987
Conc: 101.15 ug/ml



#8 N-DOCOSANE

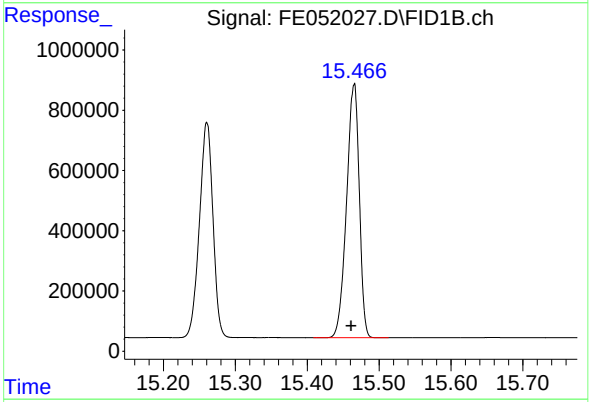
R.T.: 14.367 min
Delta R.T.: 0.004 min
Response: 10414135
Conc: 100.68 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

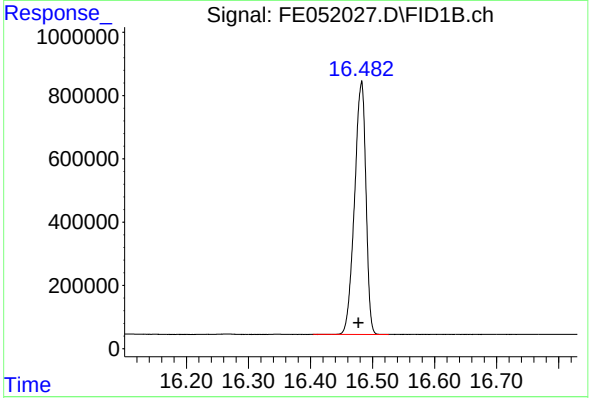
R.T.: 15.260 min
Delta R.T.: 0.003 min
Response: 9326838
Conc: 100.17 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



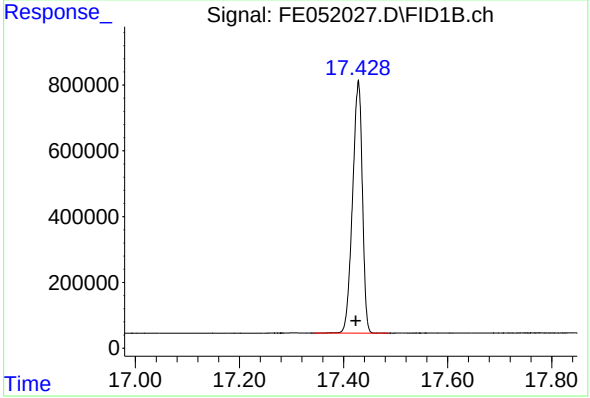
#10 N-TETRACOSANE

R.T.: 15.465 min
Delta R.T.: 0.004 min
Response: 10358861
Conc: 100.27 ug/ml



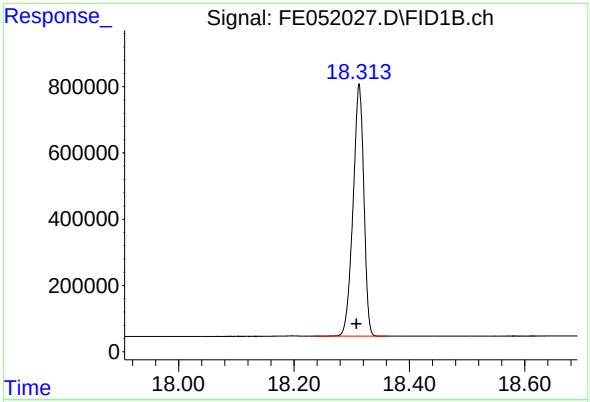
#11 N-HEXACOSANE

R.T.: 16.482 min
Delta R.T.: 0.005 min
Response: 10187153
Conc: 100.08 ug/ml



#12 N-OCTACOSANE

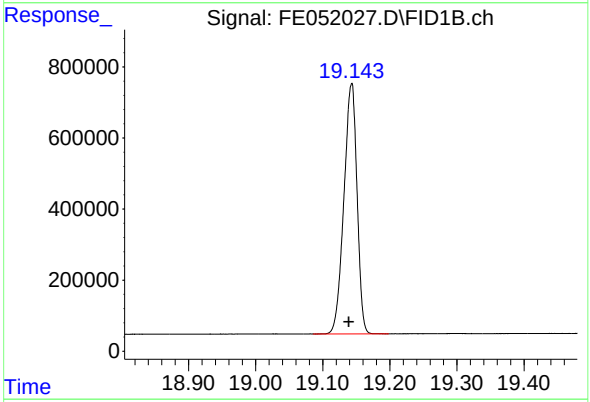
R.T.: 17.429 min
Delta R.T.: 0.005 min
Response: 10021006
Conc: 99.51 ug/ml



#13 N-TRIACONTANE

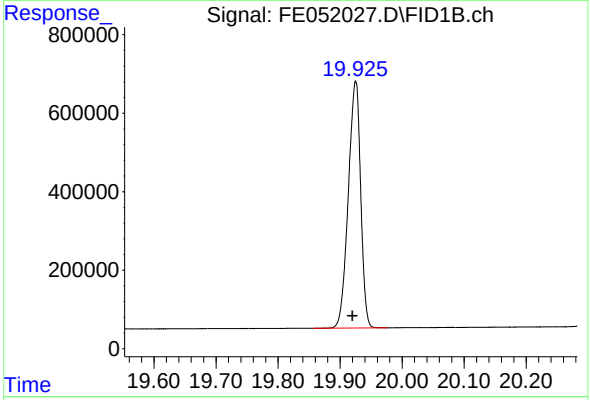
R.T.: 18.313 min
Delta R.T.: 0.005 min
Response: 9878203
Conc: 99.28 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



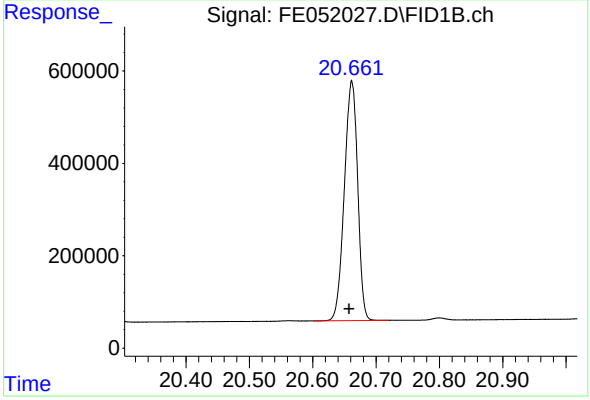
#14 N-DOTRIACONTANE

R.T.: 19.143 min
Delta R.T.: 0.004 min
Response: 9582276
Conc: 99.15 ug/ml



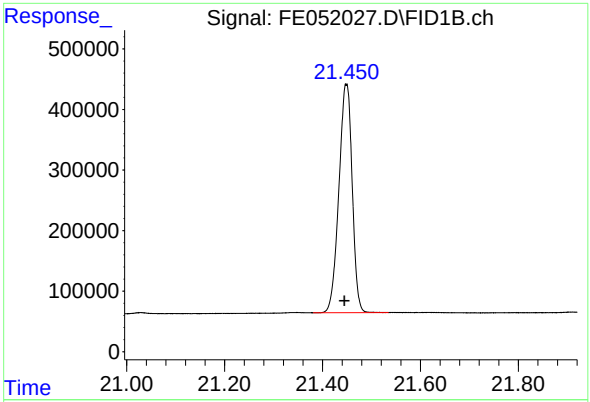
#15 N-TETRATRIACONTANE

R.T.: 19.925 min
Delta R.T.: 0.005 min
Response: 8712926
Conc: 100.31 ug/ml



#16 N-HEXATRIACONTANE

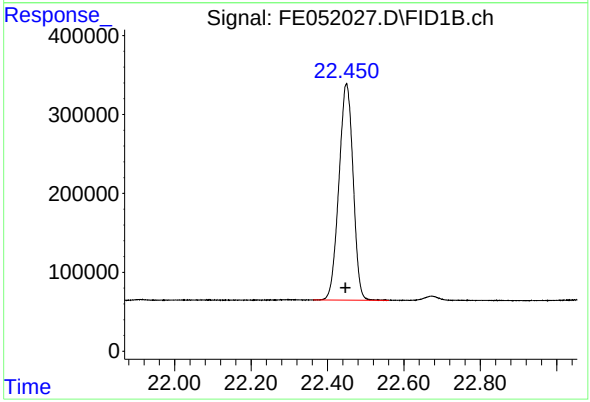
R.T.: 20.662 min
Delta R.T.: 0.004 min
Response: 7584514
Conc: 101.79 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.449 min
Delta R.T.: 0.004 min
Response: 7106830
Conc: 103.21 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.450 min
Delta R.T.: 0.002 min
Response: 7068311
Conc: 105.03 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.414	2.382	2.498	PB	704049	8352750	78.28%	4.959%
2	4.910	4.867	4.969	BB	951340	8964173	84.01%	5.321%
3	7.039	6.997	7.092	BB	1002810	9720116	91.10%	5.770%
4	8.845	8.781	8.891	BV	977530	9800969	91.85%	5.818%
5	10.439	10.392	10.495	BB	989021	10191868	95.52%	6.050%
6	11.873	11.776	11.914	BB	979790	10670149	100.00%	6.334%
7	13.174	13.125	13.224	BB	912737	10511987	98.52%	6.240%
8	14.367	14.292	14.410	BB	871499	10414135	97.60%	6.182%
9	15.260	15.217	15.304	PV	713126	9326838	87.41%	5.537%
10	15.465	15.408	15.513	BB	842402	10358861	97.08%	6.149%
11	16.482	16.404	16.526	BB	799959	10187153	95.47%	6.047%
12	17.429	17.342	17.487	BB	765387	10021006	93.92%	5.949%
13	18.313	18.233	18.364	BB	762184	9878203	92.58%	5.864%
14	19.143	19.086	19.198	BB	704937	9582276	89.80%	5.688%
15	19.925	19.857	19.978	BV	629323	8712926	81.66%	5.172%
16	20.662	20.601	20.720	BB	519502	7584514	71.08%	4.502%
17	21.449	21.381	21.535	BB	375187	7106830	66.60%	4.219%
18	22.450	22.362	22.560	BB	274238	7068311	66.24%	4.196%

Sum of corrected areas: 168453064

FE012325.M Fri Jan 24 03:17:50 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.257	4655317	50.000 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	4040248	50.000 ug/ml
2)	N-DECANE	4.907	4328284	50.000 ug/ml
3)	N-DODECANE	7.036	4713212	50.000 ug/ml
4)	N-TETRADECANE	8.842	4775185	50.000 ug/ml
5)	N-HEXADECANE	10.436	4988963	50.000 ug/ml
6)	N-OCTADECANE	11.869	5246868	50.000 ug/ml
7)	N-EICOSANE	13.171	5196311	50.000 ug/ml
8)	N-DOCOSANE	14.362	5172075	50.000 ug/ml
10)	N-TETRACOSANE	15.461	5165286	50.000 ug/ml
11)	N-HEXACOSANE	16.477	5089619	50.000 ug/ml
12)	N-OCTACOSANE	17.424	5035229	50.000 ug/ml
13)	N-TRIACONTANE	18.308	4974786	50.000 ug/ml
14)	N-DOTRIACONTANE	19.139	4832453	50.000 ug/ml
15)	N-TETRATRIACONTANE	19.920	4342985	50.000 ug/ml
16)	N-HEXATRIACONTANE	20.657	3725450	50.000 ug/ml
17)	N-OCTATRIACONTANE	21.445	3442776	50.000 ug/ml
18)	N-TETRACONTANE	22.447	3364772	50.000 ug/ml

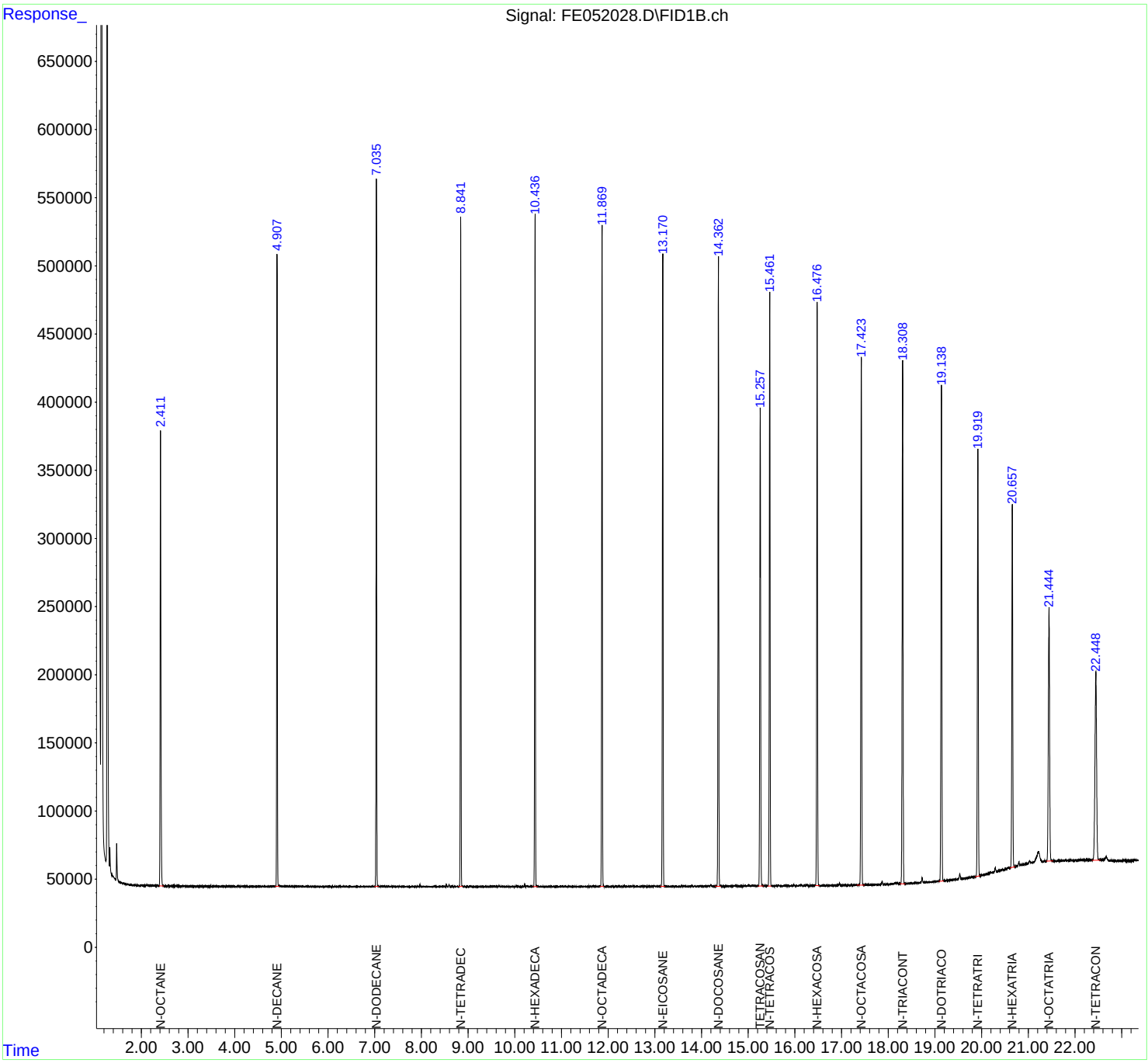
(f)=RT Delta > 1/2 Window (m)=manual int.

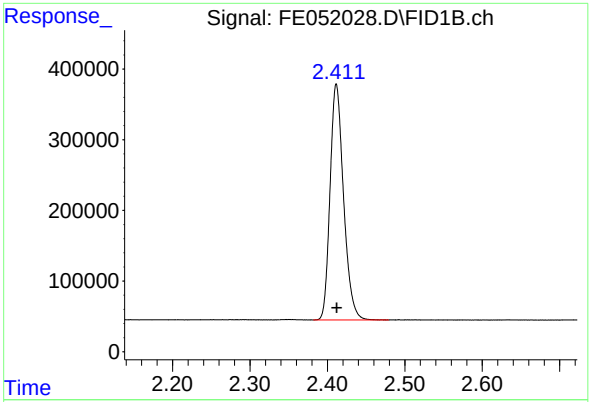
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

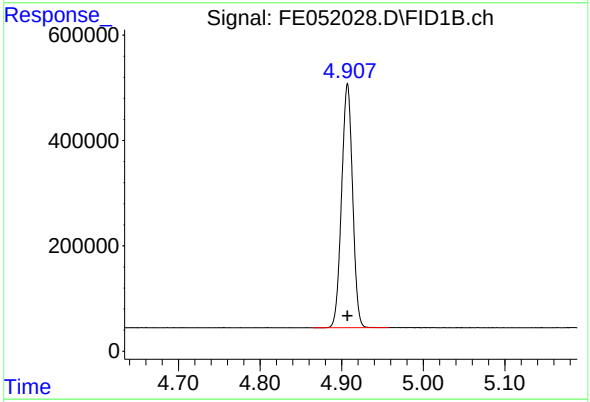




#1 N-OCTANE

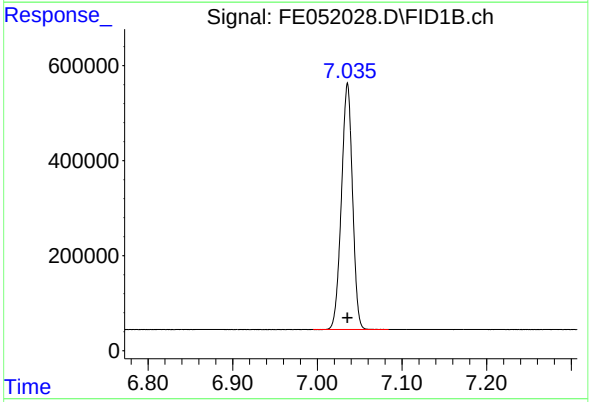
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 4040248
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



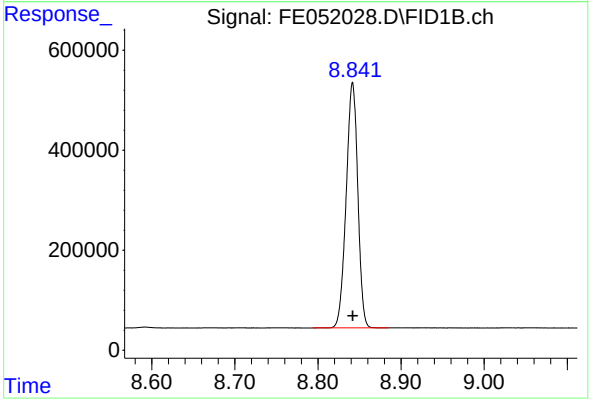
#2 N-DECANE

R.T.: 4.907 min
Delta R.T.: 0.000 min
Response: 4328284
Conc: 50.00 ug/ml



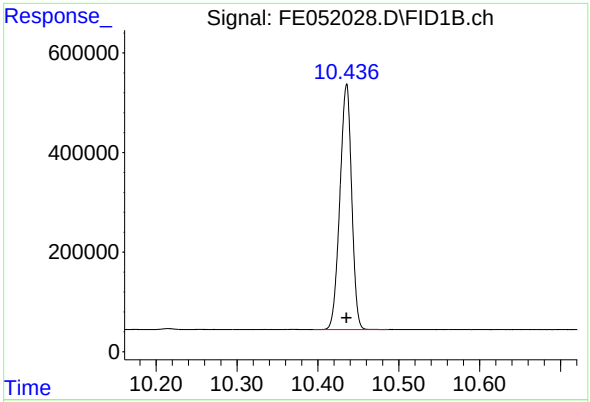
#3 N-DODECANE

R.T.: 7.036 min
Delta R.T.: 0.000 min
Response: 4713212
Conc: 50.00 ug/ml



#4 N-TETRADECANE

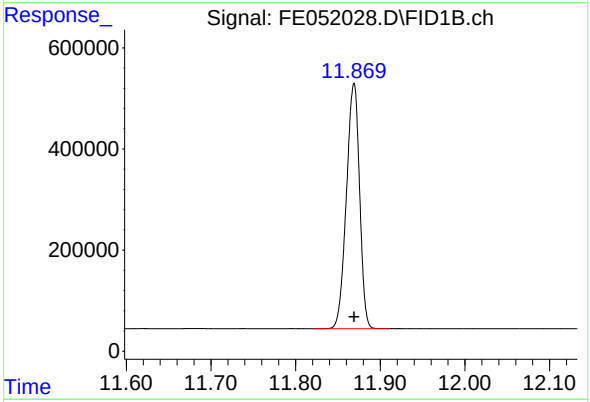
R.T.: 8.842 min
Delta R.T.: 0.000 min
Response: 4775185
Conc: 50.00 ug/ml



#5 N-HEXADECANE

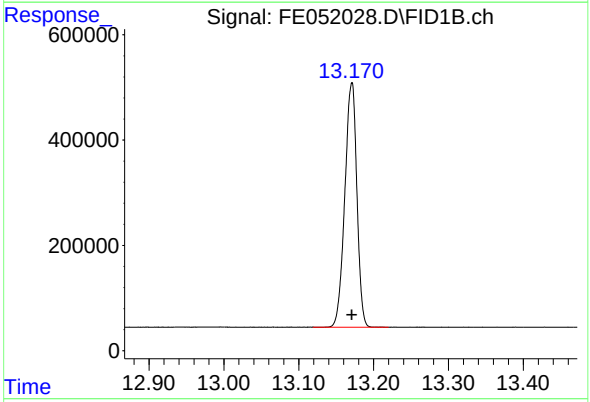
R.T.: 10.436 min
Delta R.T.: 0.000 min
Response: 4988963
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



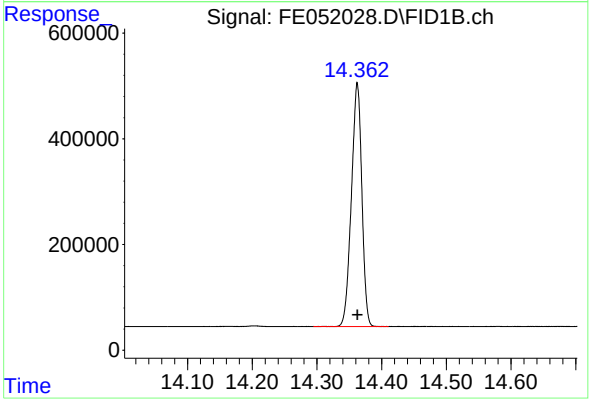
#6 N-OCTADECANE

R.T.: 11.869 min
Delta R.T.: 0.000 min
Response: 5246868
Conc: 50.00 ug/ml



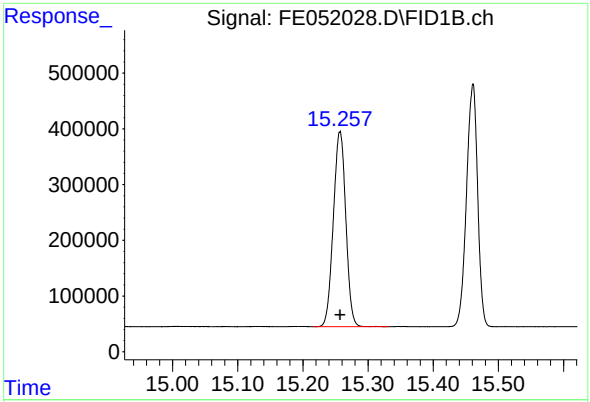
#7 N-EICOSANE

R.T.: 13.171 min
Delta R.T.: 0.000 min
Response: 5196311
Conc: 50.00 ug/ml



#8 N-DOCOSANE

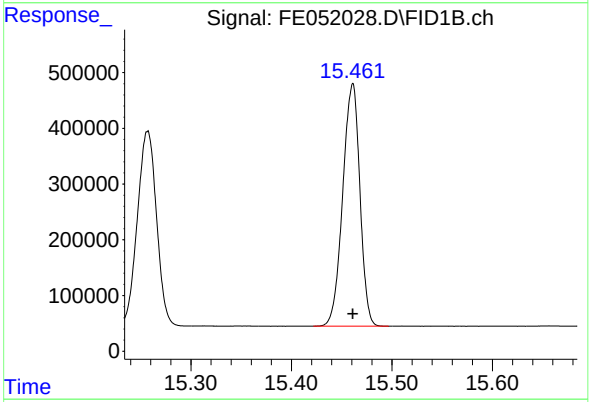
R.T.: 14.362 min
Delta R.T.: 0.000 min
Response: 5172075
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

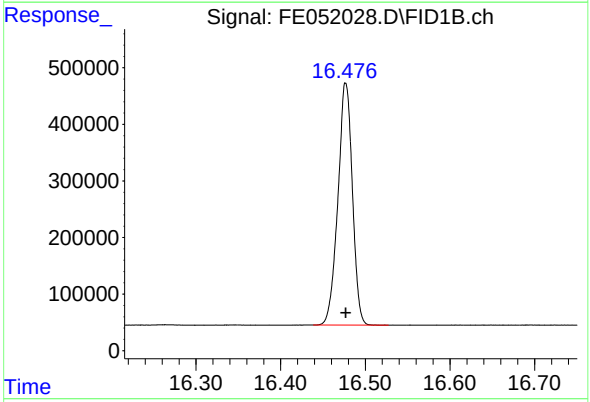
R.T.: 15.257 min
Delta R.T.: 0.000 min
Response: 4655317
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



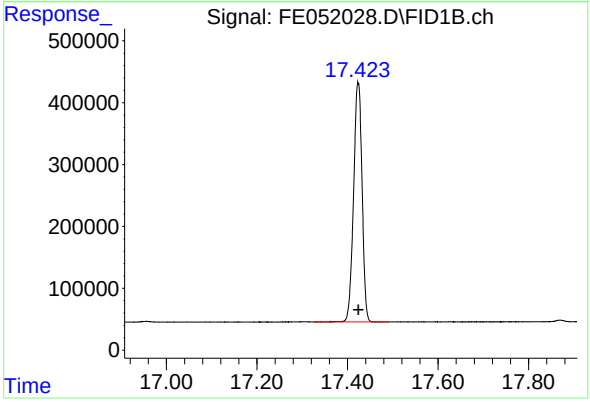
#10 N-TETRACOSANE

R.T.: 15.461 min
Delta R.T.: 0.000 min
Response: 5165286
Conc: 50.00 ug/ml



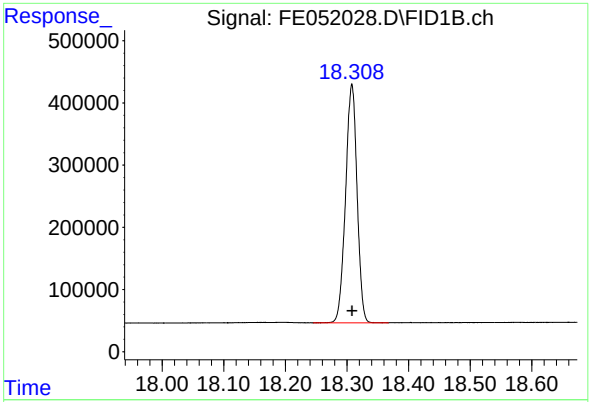
#11 N-HEXACOSANE

R.T.: 16.477 min
Delta R.T.: 0.000 min
Response: 5089619
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

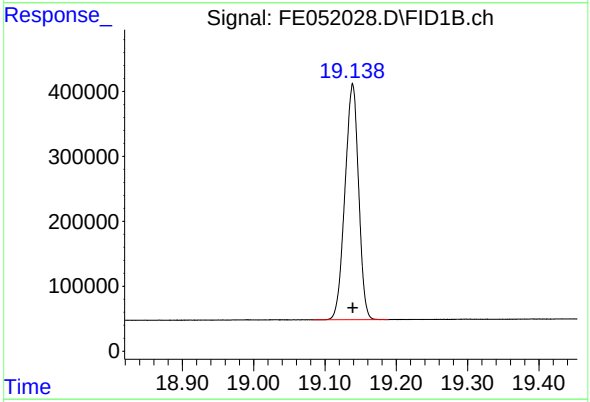
R.T.: 17.424 min
Delta R.T.: 0.000 min
Response: 5035229
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

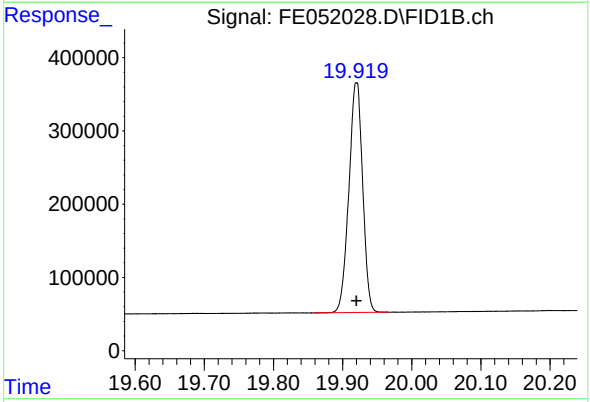
R.T.: 18.308 min
Delta R.T.: 0.000 min
Response: 4974786
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



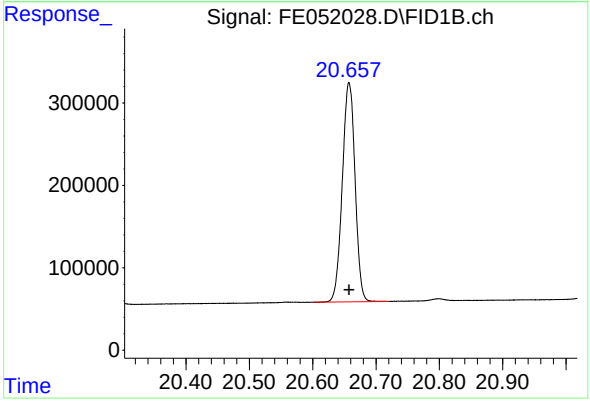
#14 N-DOTRIACONTANE

R.T.: 19.139 min
Delta R.T.: 0.000 min
Response: 4832453
Conc: 50.00 ug/ml



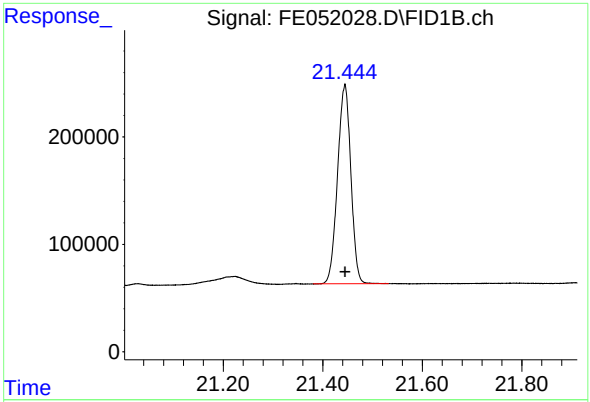
#15 N-TETRATRIACONTANE

R.T.: 19.920 min
Delta R.T.: 0.000 min
Response: 4342985
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

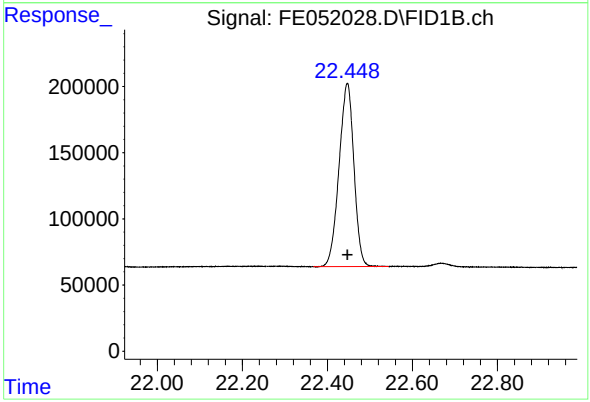
R.T.: 20.657 min
Delta R.T.: 0.000 min
Response: 3725450
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.445 min
Delta R.T.: 0.000 min
Response: 3442776
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.447 min
Delta R.T.: 0.000 min
Response: 3364772
Conc: 50.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.382	2.479	BB	334007	4040248	77.00%	4.863%
2	4.907	4.865	4.957	BB	463698	4328284	82.49%	5.209%
3	7.036	6.995	7.084	BB	518684	4713212	89.83%	5.672%
4	8.842	8.794	8.885	BB	491118	4775185	91.01%	5.747%
5	10.436	10.394	10.487	BB	493549	4988963	95.08%	6.004%
6	11.869	11.821	11.910	BB	485508	5246868	100.00%	6.315%
7	13.171	13.119	13.220	BB	464348	5196311	99.04%	6.254%
8	14.362	14.294	14.411	BB	460694	5172075	98.57%	6.225%
9	15.257	15.216	15.332	BV	349212	4655317	88.73%	5.603%
10	15.461	15.422	15.497	BB	435610	5165286	98.45%	6.217%
11	16.477	16.438	16.527	BB	427488	5089619	97.00%	6.125%
12	17.424	17.324	17.491	BB	386262	5035229	95.97%	6.060%
13	18.308	18.245	18.367	BB	384042	4974786	94.81%	5.987%
14	19.139	19.083	19.189	BB	362886	4832453	92.10%	5.816%
15	19.920	19.857	19.967	BB	313315	4342985	82.77%	5.227%
16	20.657	20.601	20.720	BV	266273	3725450	71.00%	4.484%
17	21.445	21.381	21.532	BB	186220	3442776	65.62%	4.143%
18	22.447	22.367	22.544	BB	138429	3364772	64.13%	4.050%
			Sum of corrected areas:			83089819		

FE012325.M Fri Jan 24 03:18:33 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.254	1967122	21.128 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	1671507	20.686 ug/ml
2)	N-DECANE	4.906	1790386	20.682 ug/ml
3)	N-DODECANE	7.034	1959669	20.789 ug/ml
4)	N-TETRADECANE	8.840	1996208	20.902 ug/ml
5)	N-HEXADECANE	10.433	2090226	20.949 ug/ml
6)	N-OCTADECANE	11.866	2202071	20.985 ug/ml
7)	N-EICOSANE	13.168	2188908	21.062 ug/ml
8)	N-DOCOSANE	14.360	2186141	21.134 ug/ml
10)	N-TETRACOSANE	15.457	2185765	21.158 ug/ml
11)	N-HEXACOSANE	16.475	2160412	21.224 ug/ml
12)	N-OCTACOSANE	17.421	2147225	21.322 ug/ml
13)	N-TRIACONTANE	18.305	2136983	21.478 ug/ml
14)	N-DOTRIACONTANE	19.136	2078753	21.508 ug/ml
15)	N-TETRATRIACONTANE	19.918	1833911	21.113 ug/ml
16)	N-HEXATRIACONTANE	20.657	1534108	20.590 ug/ml
17)	N-OCTATRIACONTANE	21.439	1367415	19.859 ug/ml
18)	N-TETRACONTANE	22.440	1309204	19.455 ug/ml

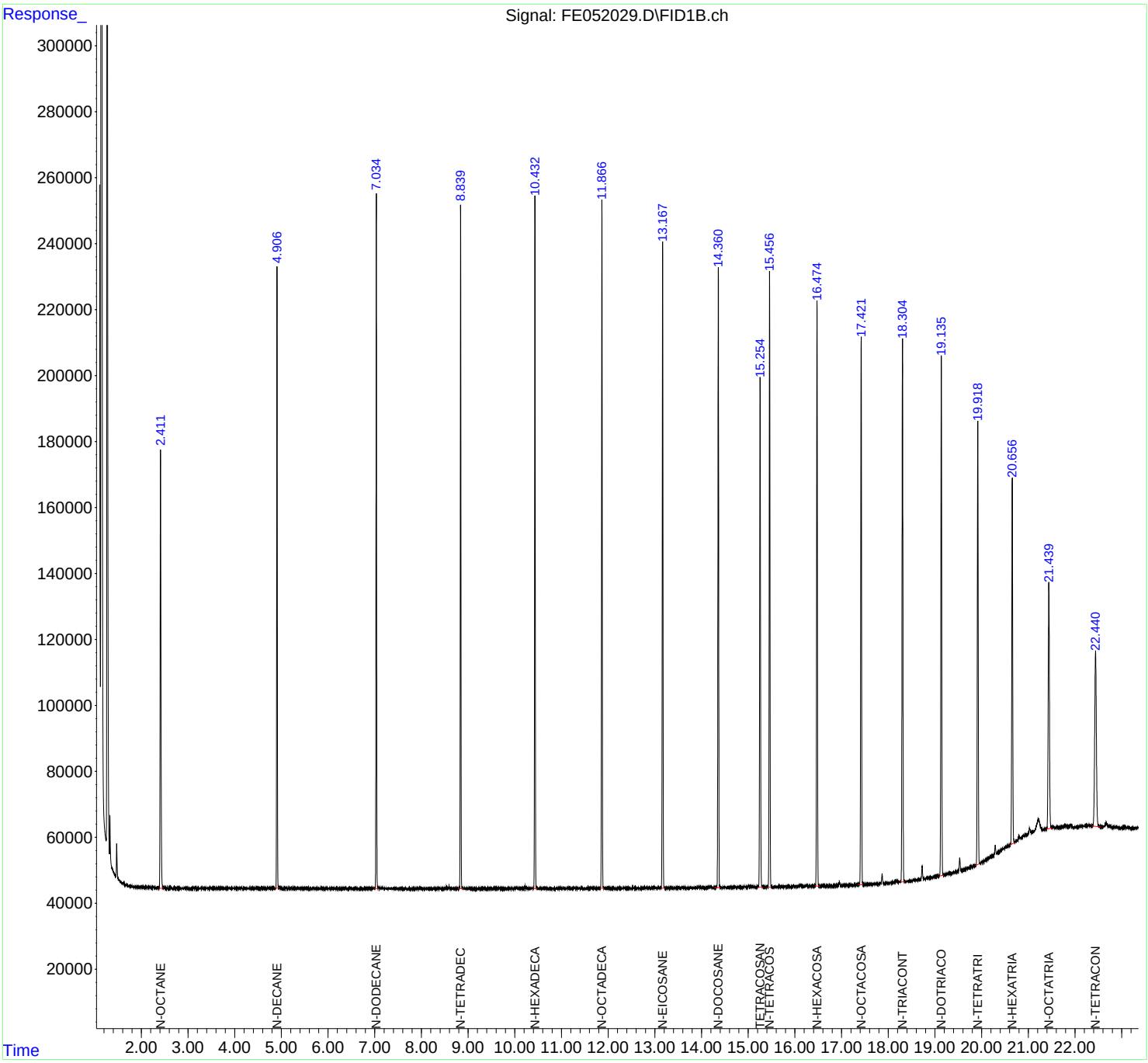
(f)=RT Delta > 1/2 Window (m)=manual int.

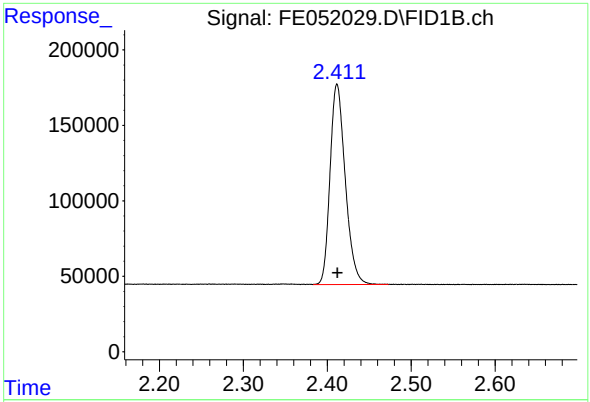
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

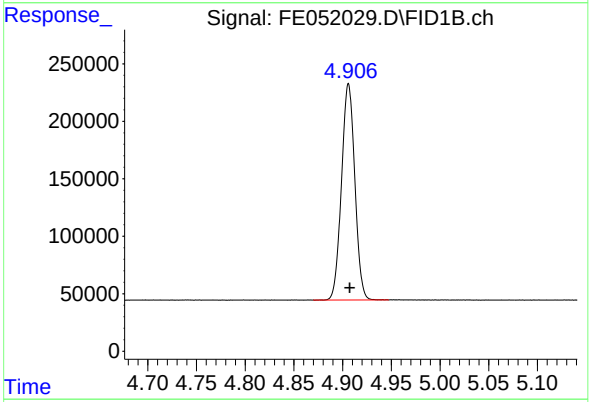




#1 N-OCTANE

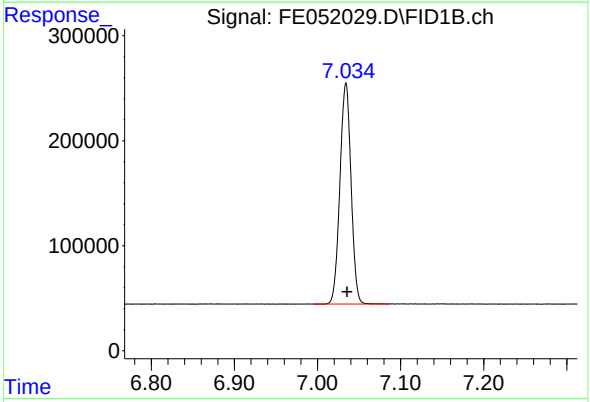
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 1671507
Conc: 20.69 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



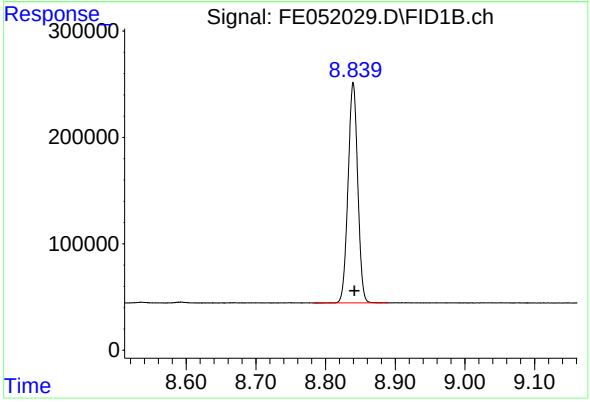
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.001 min
Response: 1790386
Conc: 20.68 ug/ml



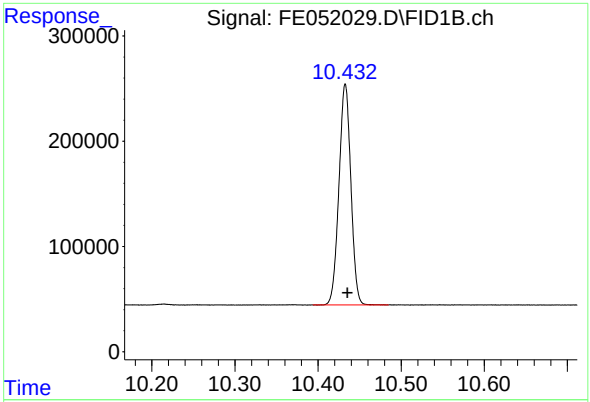
#3 N-DODECANE

R.T.: 7.034 min
Delta R.T.: -0.001 min
Response: 1959669
Conc: 20.79 ug/ml



#4 N-TETRADECANE

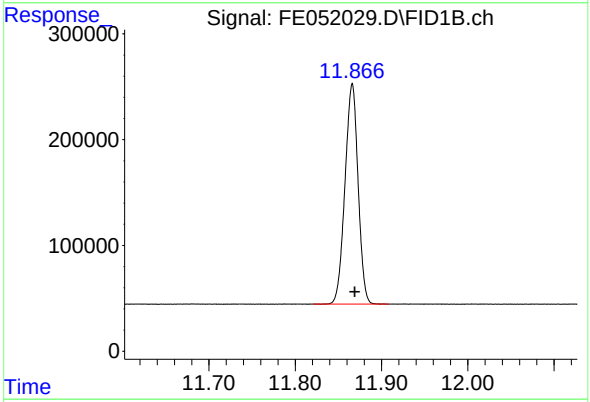
R.T.: 8.840 min
Delta R.T.: -0.002 min
Response: 1996208
Conc: 20.90 ug/ml



#5 N-HEXADECANE

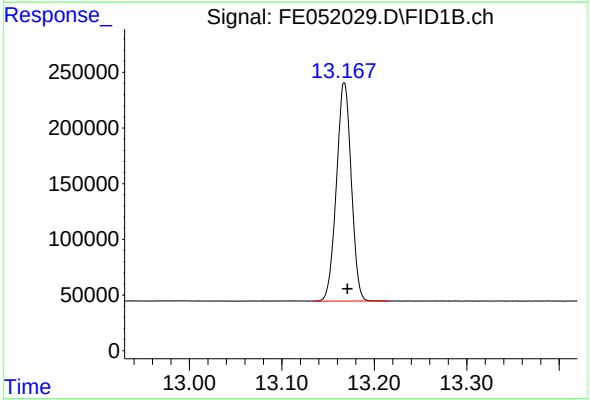
R.T.: 10.433 min
Delta R.T.: -0.003 min
Response: 2090226
Conc: 20.95 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



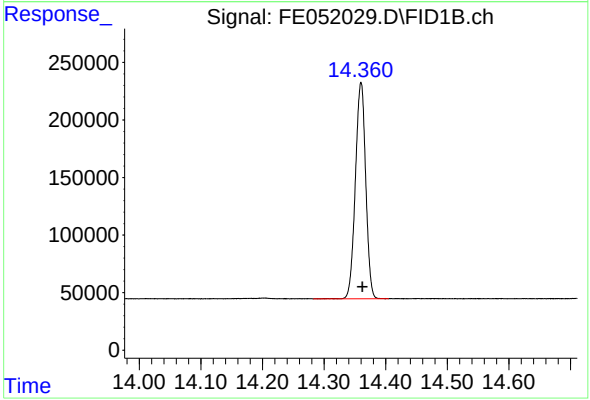
#6 N-OCTADECANE

R.T.: 11.866 min
Delta R.T.: -0.003 min
Response: 2202071
Conc: 20.98 ug/ml



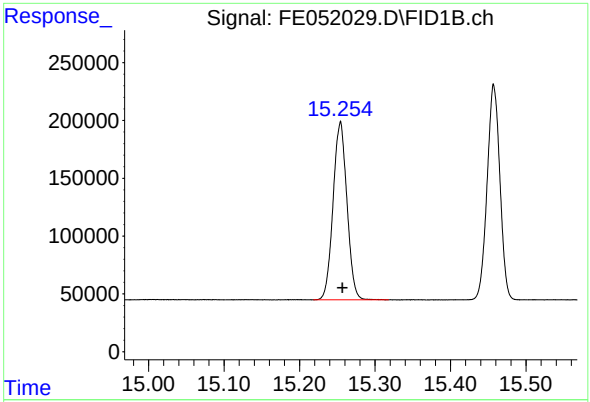
#7 N-EICOSANE

R.T.: 13.168 min
Delta R.T.: -0.003 min
Response: 2188908
Conc: 21.06 ug/ml



#8 N-DOCOSANE

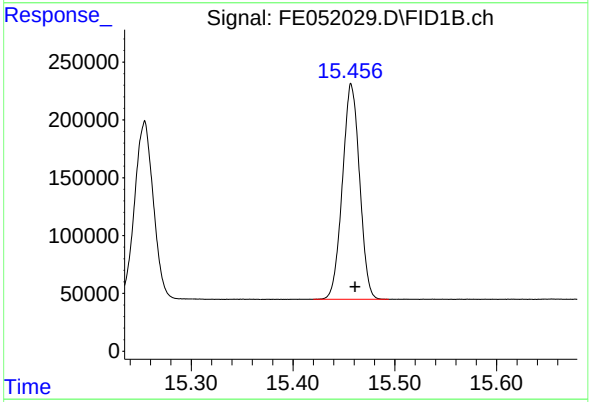
R.T.: 14.360 min
Delta R.T.: -0.002 min
Response: 2186141
Conc: 21.13 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

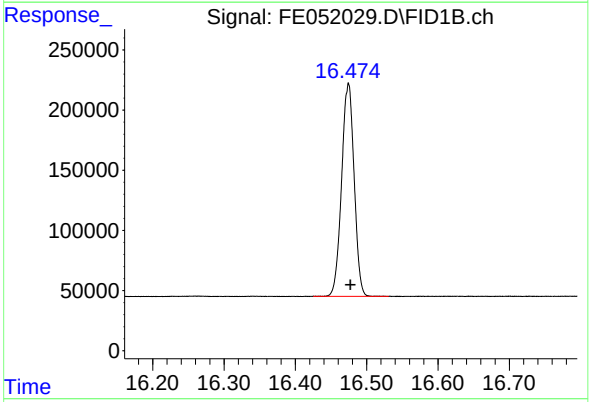
R.T.: 15.254 min
Delta R.T.: -0.003 min
Response: 1967122
Conc: 21.13 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



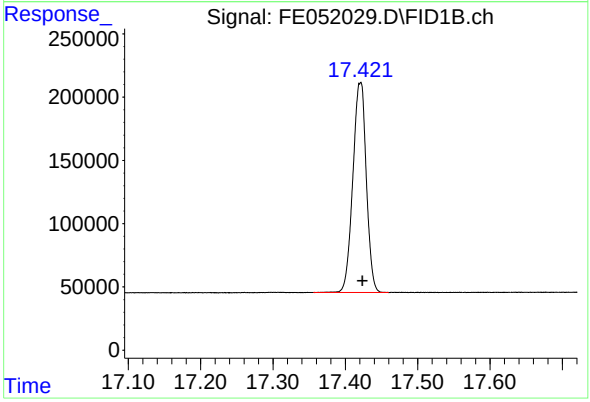
#10 N-TETRACOSANE

R.T.: 15.457 min
Delta R.T.: -0.004 min
Response: 2185765
Conc: 21.16 ug/ml



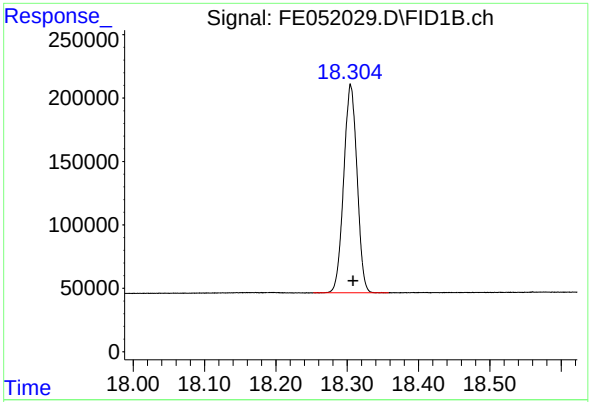
#11 N-HEXACOSANE

R.T.: 16.475 min
Delta R.T.: -0.002 min
Response: 2160412
Conc: 21.22 ug/ml



#12 N-OCTACOSANE

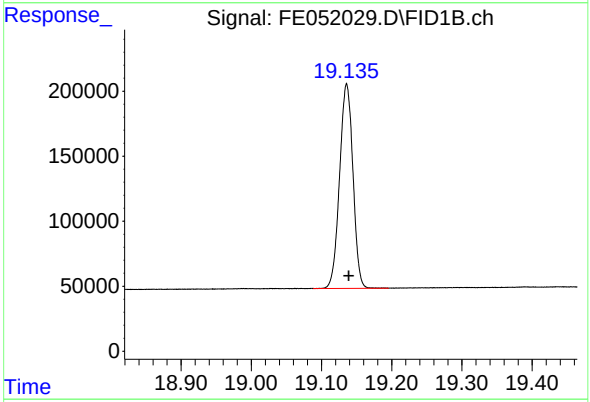
R.T.: 17.421 min
Delta R.T.: -0.003 min
Response: 2147225
Conc: 21.32 ug/ml



#13 N-TRIACONTANE

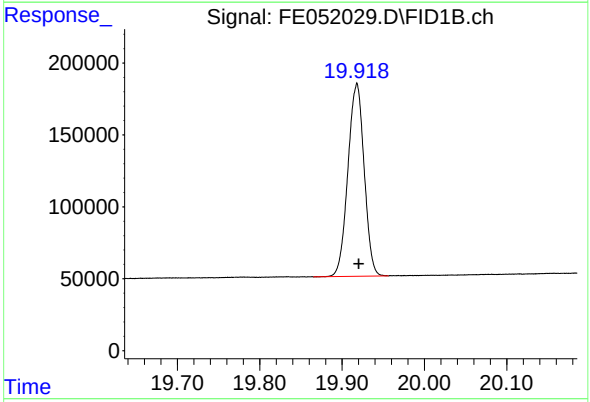
R.T.: 18.305 min
Delta R.T.: -0.003 min
Response: 2136983
Conc: 21.48 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



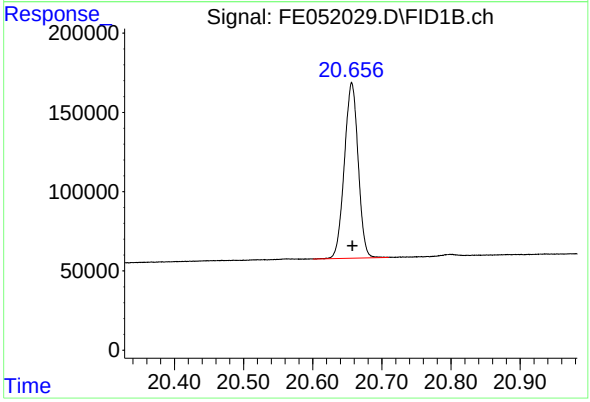
#14 N-DOTRIACONTANE

R.T.: 19.136 min
Delta R.T.: -0.003 min
Response: 2078753
Conc: 21.51 ug/ml



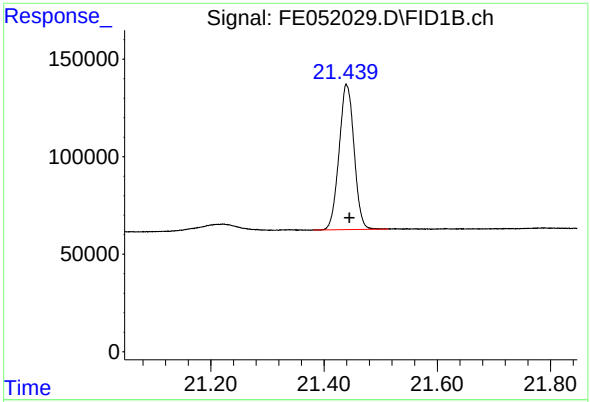
#15 N-TETRATRIACONTANE

R.T.: 19.918 min
Delta R.T.: -0.002 min
Response: 1833911
Conc: 21.11 ug/ml



#16 N-HEXATRIACONTANE

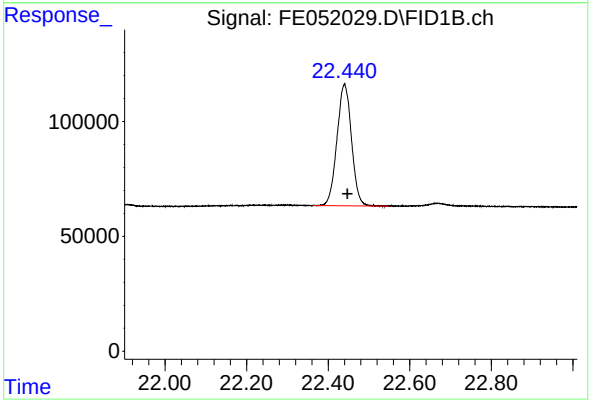
R.T.: 20.657 min
Delta R.T.: 0.000 min
Response: 1534108
Conc: 20.59 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.005 min
Response: 1367415
Conc: 19.86 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.440 min
Delta R.T.: -0.007 min
Response: 1309204
Conc: 19.45 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.383	2.473	BB	132906	1671507	75.91%	4.802%
2	4.906	4.870	4.947	BB	188470	1790386	81.30%	5.144%
3	7.034	6.995	7.086	BB	210395	1959669	88.99%	5.630%
4	8.840	8.782	8.891	BB	206958	1996208	90.65%	5.735%
5	10.433	10.394	10.485	BB	210083	2090226	94.92%	6.005%
6	11.866	11.821	11.908	BB	209078	2202071	100.00%	6.327%
7	13.168	13.134	13.216	BB	196057	2188908	99.40%	6.289%
8	14.360	14.282	14.405	BB	188088	2186141	99.28%	6.281%
9	15.254	15.218	15.318	BB	154122	1967122	89.33%	5.652%
10	15.457	15.420	15.494	BB	185791	2185765	99.26%	6.280%
11	16.475	16.425	16.531	BB	177131	2160412	98.11%	6.207%
12	17.421	17.356	17.460	BB	165726	2147225	97.51%	6.169%
13	18.305	18.252	18.358	BB	163835	2136983	97.04%	6.140%
14	19.136	19.088	19.196	BB	157435	2078753	94.40%	5.972%
15	19.918	19.865	19.957	BB	134470	1833911	83.28%	5.269%
16	20.657	20.601	20.710	BB	110823	1534108	69.67%	4.408%
17	21.439	21.381	21.514	BB	74580	1367415	62.10%	3.929%
18	22.440	22.363	22.548	BB	53116	1309204	59.45%	3.761%
			Sum of corrected areas:			34806015		

FE012325.M Fri Jan 24 03:19:04 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.253	1061033	11.396 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	889828	11.012 ug/ml
2)	N-DECANE	4.906	959030	11.079 ug/ml
3)	N-DODECANE	7.033	1052037	11.161 ug/ml
4)	N-TETRADECANE	8.839	1077547	11.283 ug/ml
5)	N-HEXADECANE	10.432	1131977	11.345 ug/ml
6)	N-OCTADECANE	11.865	1193205	11.371 ug/ml
7)	N-EICOSANE	13.167	1184917	11.402 ug/ml
8)	N-DOCOSANE	14.358	1182709	11.434 ug/ml
10)	N-TETRACOSANE	15.456	1180708	11.429 ug/ml
11)	N-HEXACOSANE	16.473	1163260	11.428 ug/ml
12)	N-OCTACOSANE	17.419	1147105	11.391 ug/ml
13)	N-TRIACONTANE	18.304	1137270	11.430 ug/ml
14)	N-DOTRIACONTANE	19.134	1110748	11.493 ug/ml
15)	N-TETRATRIACONTANE	19.915	1019077	11.732 ug/ml
16)	N-HEXATRIACONTANE	20.653	911856	12.238 ug/ml
17)	N-OCTATRIACONTANE	21.439	859350	12.480 ug/ml
18)	N-TETRACONTANE	22.441	882539	13.114 ug/ml

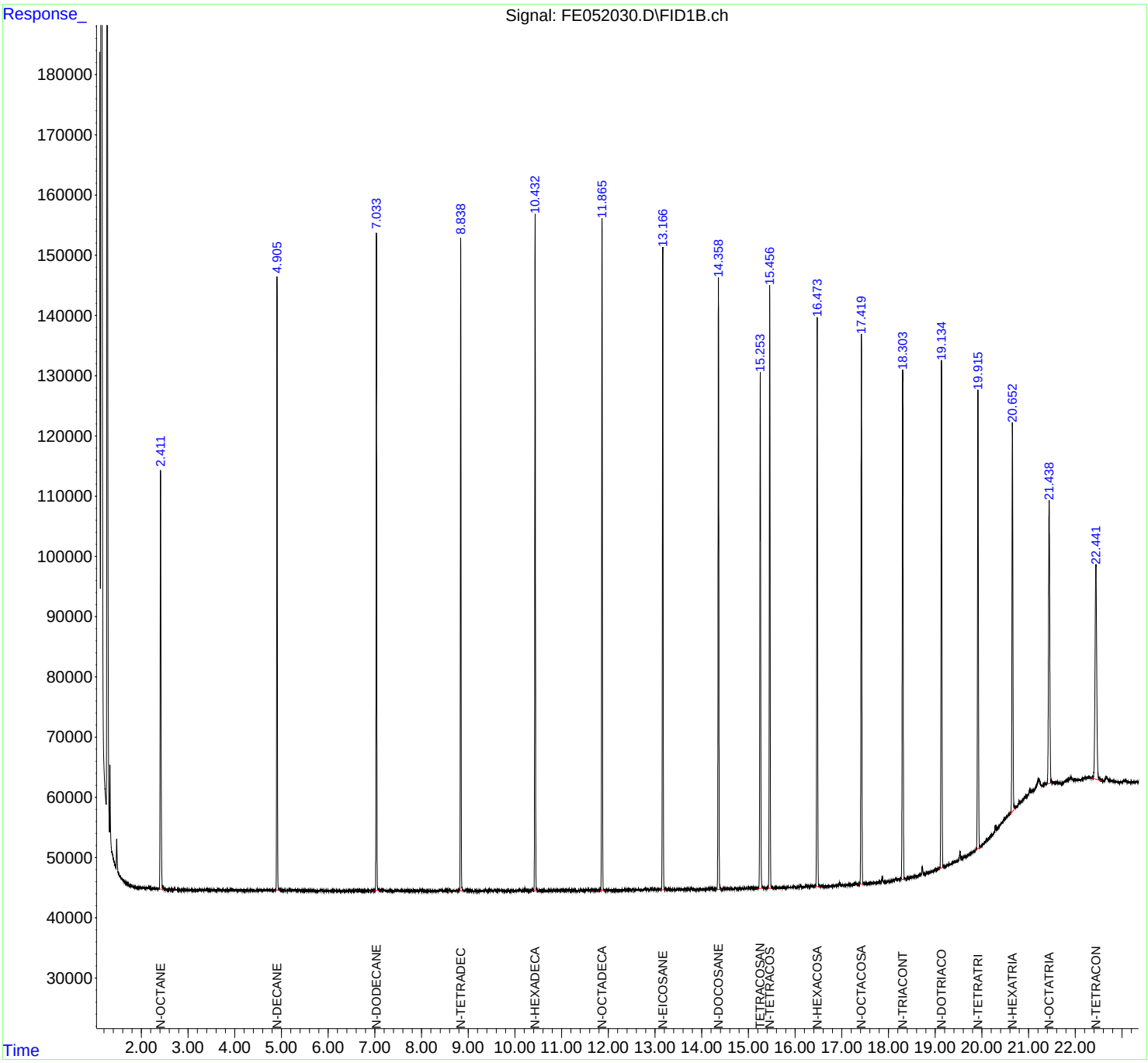
(f)=RT Delta > 1/2 Window (m)=manual int.

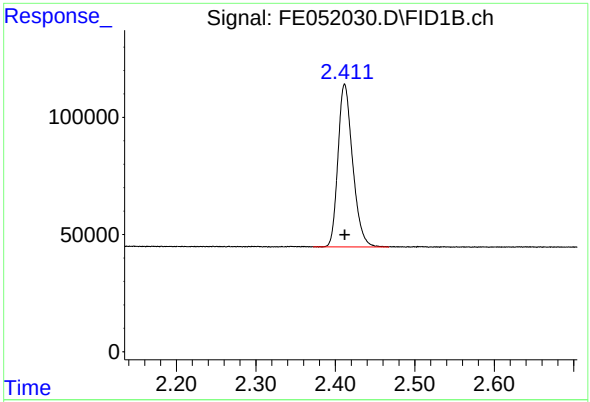
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

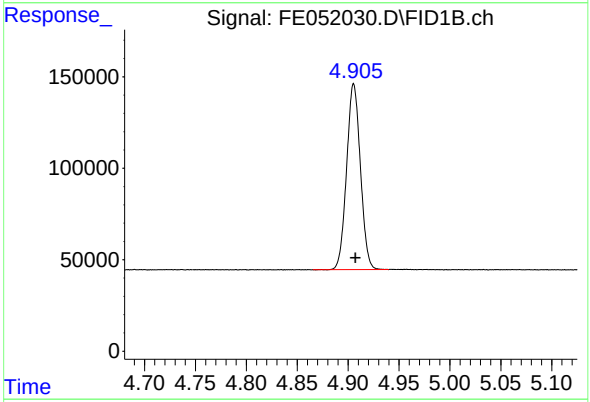




#1 N-OCTANE

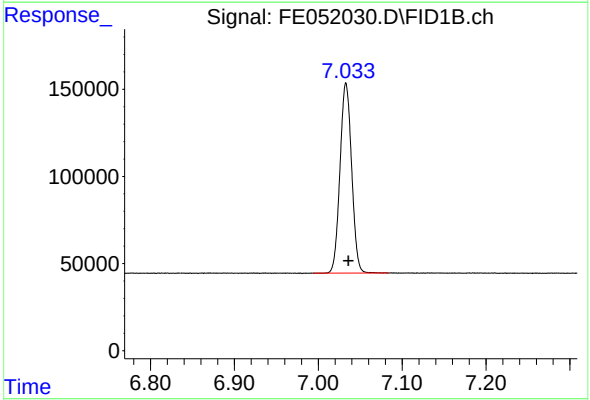
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 889828
Conc: 11.01 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



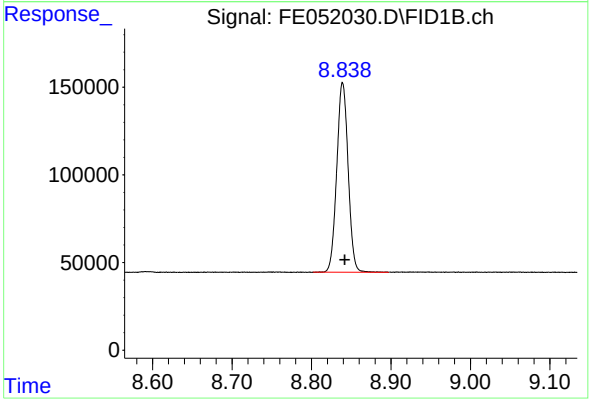
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.002 min
Response: 959030
Conc: 11.08 ug/ml



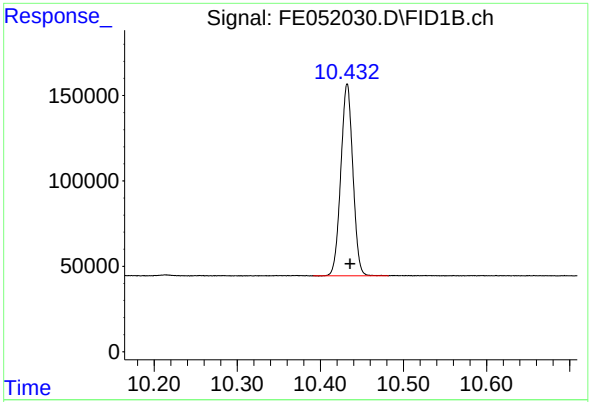
#3 N-DODECANE

R.T.: 7.033 min
Delta R.T.: -0.003 min
Response: 1052037
Conc: 11.16 ug/ml



#4 N-TETRADECANE

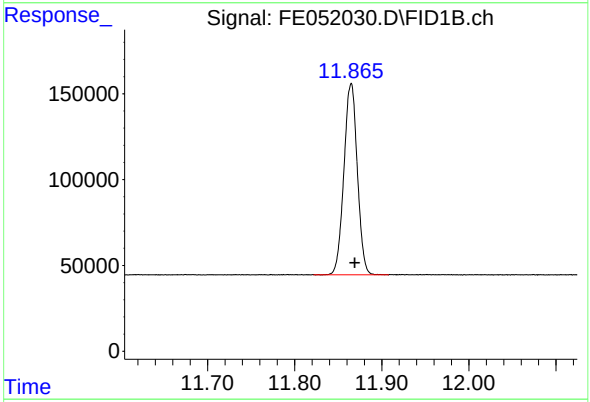
R.T.: 8.839 min
Delta R.T.: -0.003 min
Response: 1077547
Conc: 11.28 ug/ml



#5 N-HEXADECANE

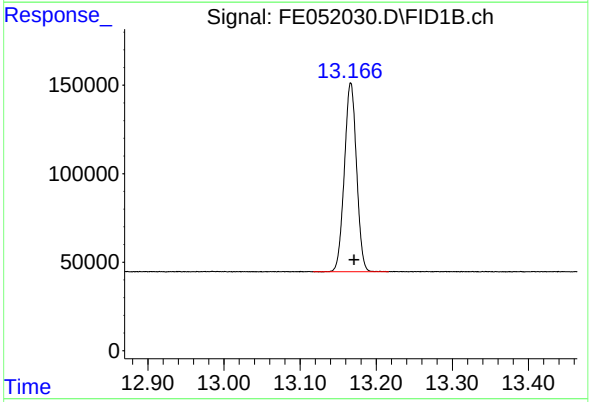
R.T.: 10.432 min
Delta R.T.: -0.003 min
Response: 1131977
Conc: 11.34 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



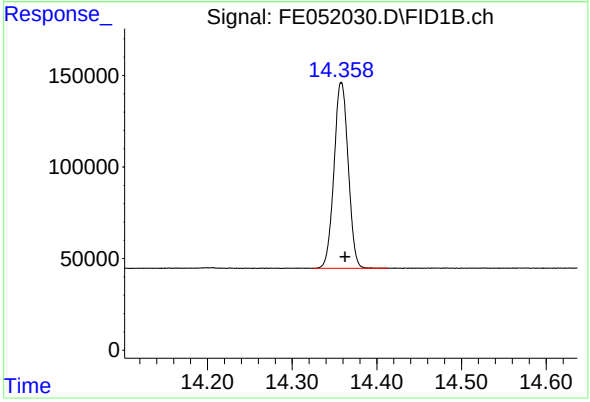
#6 N-OCTADECANE

R.T.: 11.865 min
Delta R.T.: -0.004 min
Response: 1193205
Conc: 11.37 ug/ml



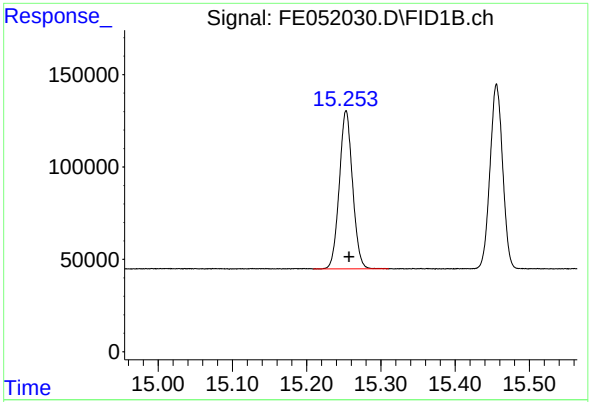
#7 N-EICOSANE

R.T.: 13.167 min
Delta R.T.: -0.004 min
Response: 1184917
Conc: 11.40 ug/ml



#8 N-DOCOSANE

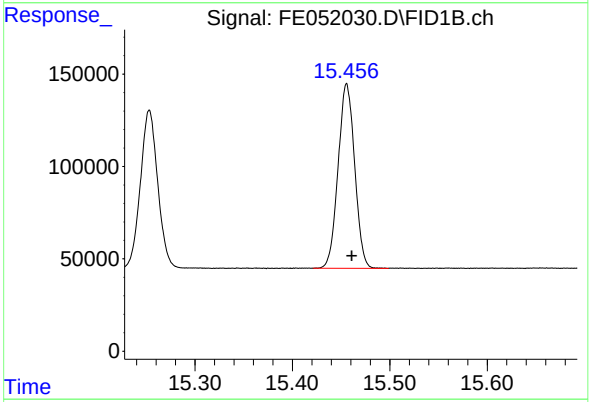
R.T.: 14.358 min
Delta R.T.: -0.004 min
Response: 1182709
Conc: 11.43 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

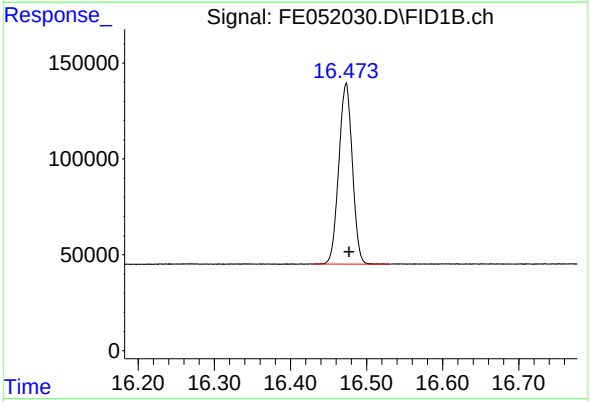
R.T.: 15.253 min
Delta R.T.: -0.004 min
Response: 1061033
Conc: 11.40 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



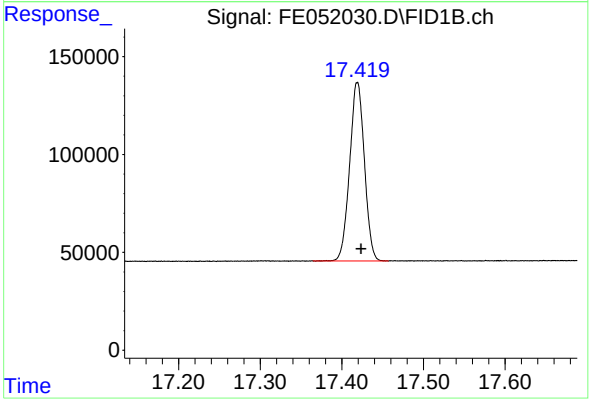
#10 N-TETRACOSANE

R.T.: 15.456 min
Delta R.T.: -0.005 min
Response: 1180708
Conc: 11.43 ug/ml



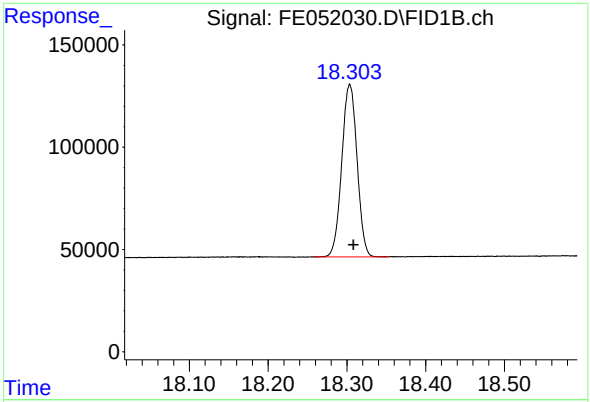
#11 N-HEXACOSANE

R.T.: 16.473 min
Delta R.T.: -0.004 min
Response: 1163260
Conc: 11.43 ug/ml



#12 N-OCTACOSANE

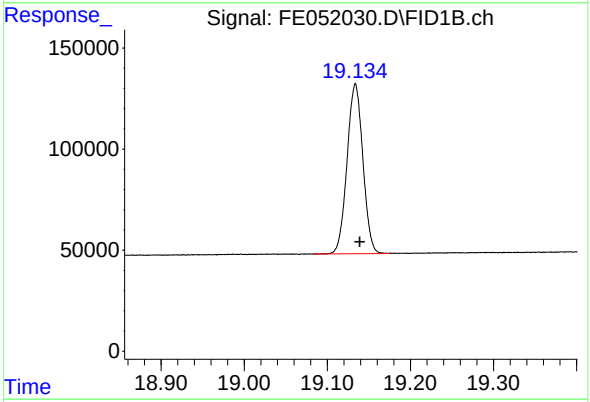
R.T.: 17.419 min
Delta R.T.: -0.005 min
Response: 1147105
Conc: 11.39 ug/ml



#13 N-TRIACONTANE

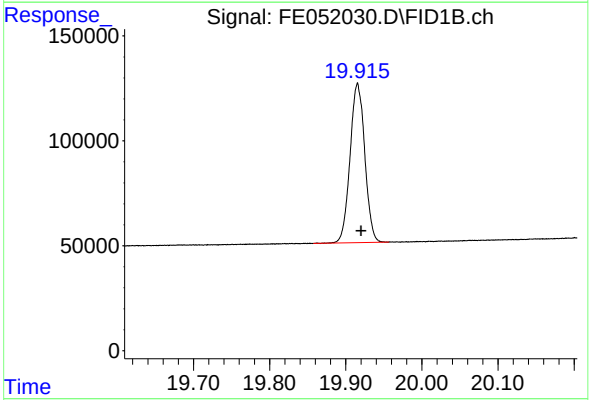
R.T.: 18.304 min
Delta R.T.: -0.004 min
Response: 1137270
Conc: 11.43 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



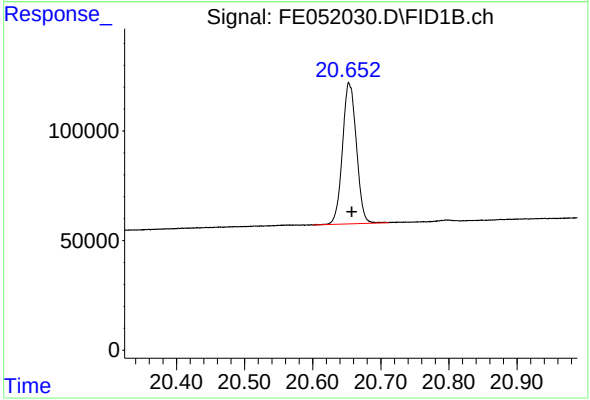
#14 N-DOTRIACONTANE

R.T.: 19.134 min
Delta R.T.: -0.005 min
Response: 1110748
Conc: 11.49 ug/ml



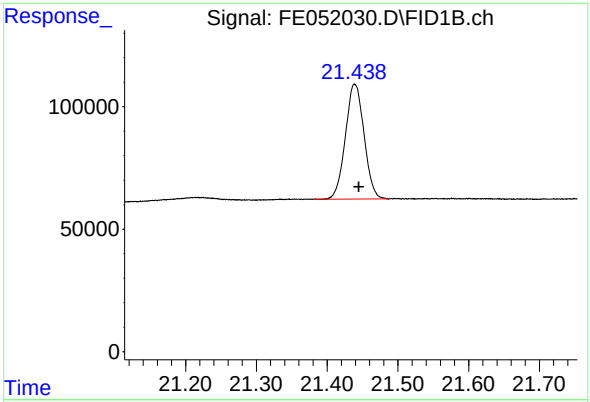
#15 N-TETRATRIACONTANE

R.T.: 19.915 min
Delta R.T.: -0.005 min
Response: 1019077
Conc: 11.73 ug/ml



#16 N-HEXATRIACONTANE

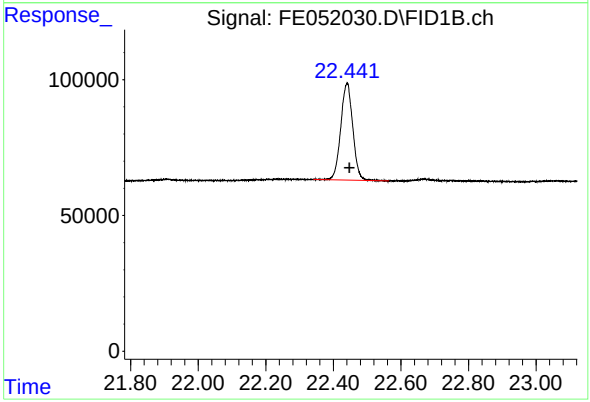
R.T.: 20.653 min
Delta R.T.: -0.004 min
Response: 911856
Conc: 12.24 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.006 min
Response: 859350
Conc: 12.48 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.441 min
Delta R.T.: -0.006 min
Response: 882539
Conc: 13.11 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.372	2.467	BB	69493	889828	74.57%	4.648%
2	4.906	4.866	4.940	BB	101609	959030	80.37%	5.010%
3	7.033	6.994	7.084	BB	109120	1052037	88.17%	5.495%
4	8.839	8.802	8.897	BB	108235	1077547	90.31%	5.629%
5	10.432	10.391	10.482	BB	112372	1131977	94.87%	5.913%
6	11.865	11.821	11.908	BB	111538	1193205	100.00%	6.233%
7	13.167	13.117	13.216	BB	106724	1184917	99.31%	6.189%
8	14.358	14.325	14.414	BB	101224	1182709	99.12%	6.178%
9	15.253	15.209	15.311	BB	85655	1061033	88.92%	5.542%
10	15.456	15.421	15.499	BB	100063	1180708	98.95%	6.167%
11	16.473	16.430	16.529	BB	94113	1163260	97.49%	6.076%
12	17.419	17.365	17.457	BB	91106	1147105	96.14%	5.992%
13	18.304	18.257	18.353	BB	84490	1137270	95.31%	5.941%
14	19.134	19.083	19.174	BB	84307	1110748	93.09%	5.802%
15	19.915	19.857	19.956	BB	76197	1019077	85.41%	5.323%
16	20.653	20.601	20.711	BB	64297	911856	76.42%	4.763%
17	21.439	21.380	21.487	BV	46908	859350	72.02%	4.489%
18	22.441	22.340	22.563	BV	35571	882539	73.96%	4.610%
			Sum of corrected areas:			19144194		

FE012325.M Fri Jan 24 03:19:32 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.253	535796	5.755 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	447517	5.538 ug/ml
2)	N-DECANE	4.906	479458	5.539 ug/ml
3)	N-DODECANE	7.033	524622	5.565 ug/ml
4)	N-TETRADECANE	8.839	538294	5.636 ug/ml
5)	N-HEXADECANE	10.432	566935	5.682 ug/ml
6)	N-OCTADECANE	11.864	597723	5.696 ug/ml
7)	N-EICOSANE	13.166	599565	5.769 ug/ml
8)	N-DOCOSANE	14.358	599958	5.800 ug/ml
10)	N-TETRACOSANE	15.456	594003	5.750 ug/ml
11)	N-HEXACOSANE	16.473	585191	5.749 ug/ml
12)	N-OCTACOSANE	17.418	583549	5.795 ug/ml
13)	N-TRIACONTANE	18.303	588228	5.912 ug/ml
14)	N-DOTRIACONTANE	19.133	573000	5.929 ug/ml
15)	N-TETRATRIACONTANE	19.915	509659	5.868 ug/ml
16)	N-HEXATRIACONTANE	20.654	427588	5.739 ug/ml
17)	N-OCTATRIACONTANE	21.439	394101	5.724 ug/ml
18)	N-TETRACONTANE	22.438	382667	5.686 ug/ml

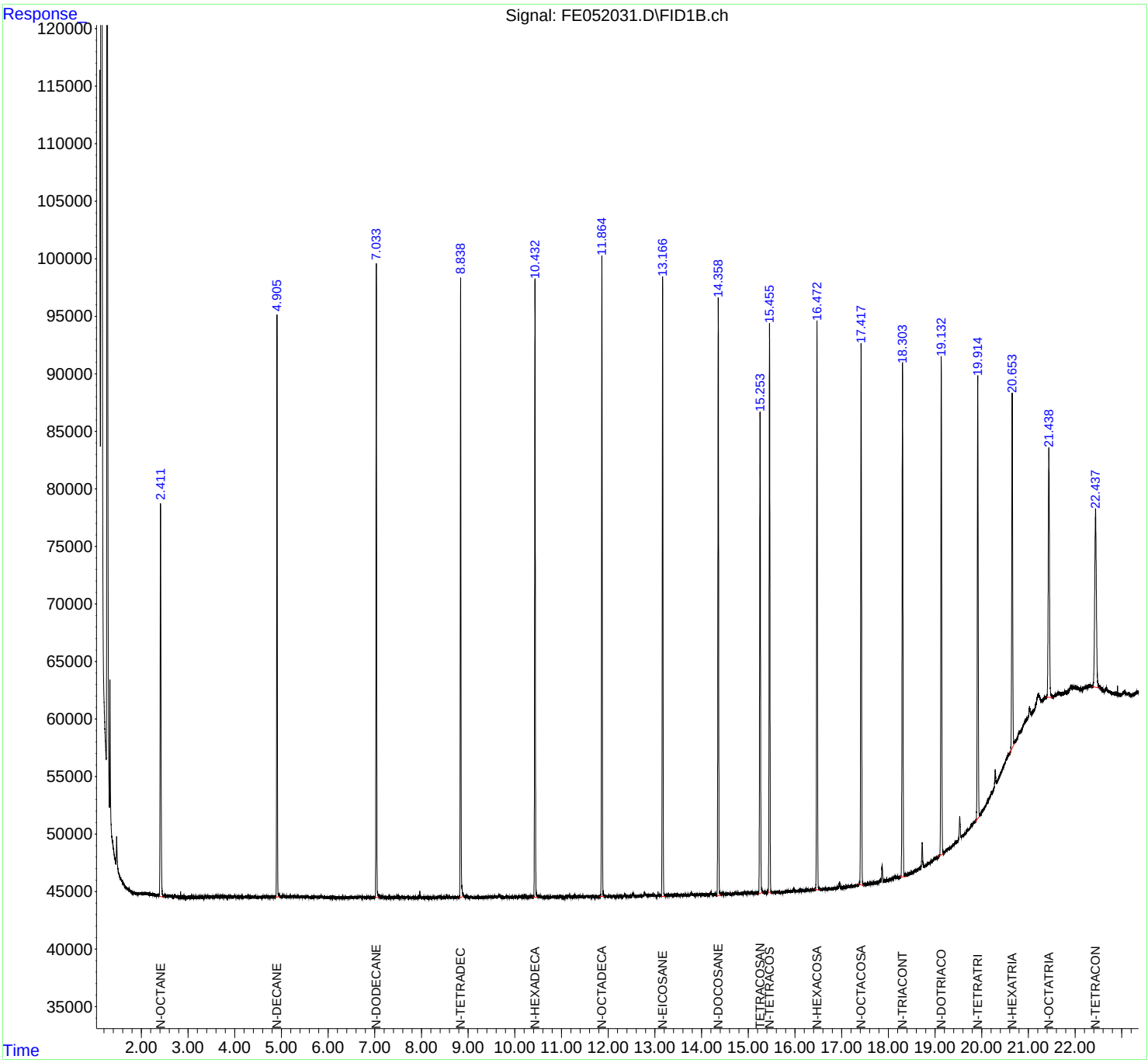
(f)=RT Delta > 1/2 Window (m)=manual int.

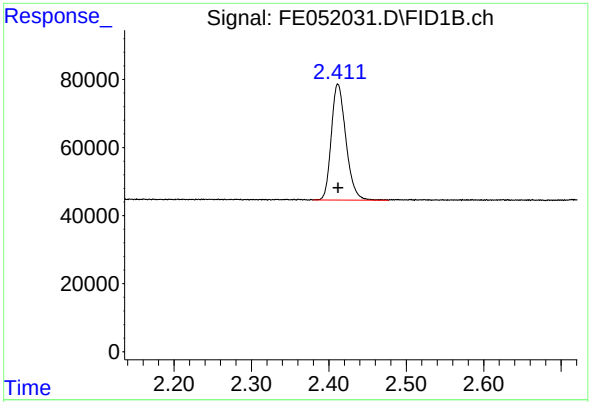
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

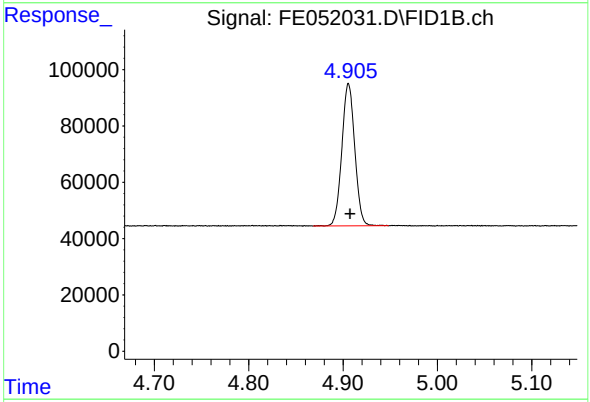




#1 N-OCTANE

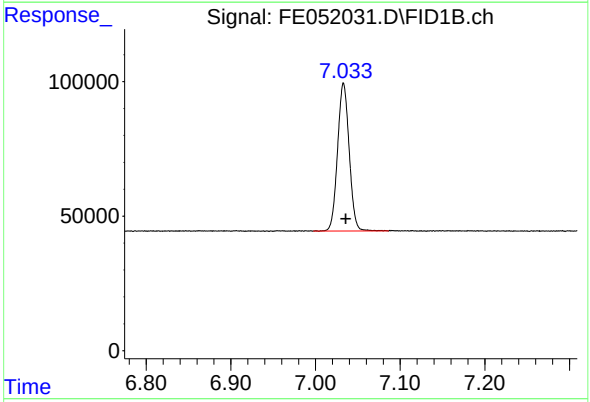
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 447517
Conc: 5.54 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



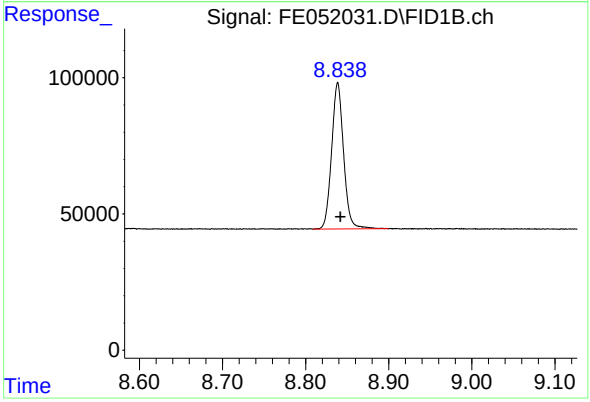
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.001 min
Response: 479458
Conc: 5.54 ug/ml



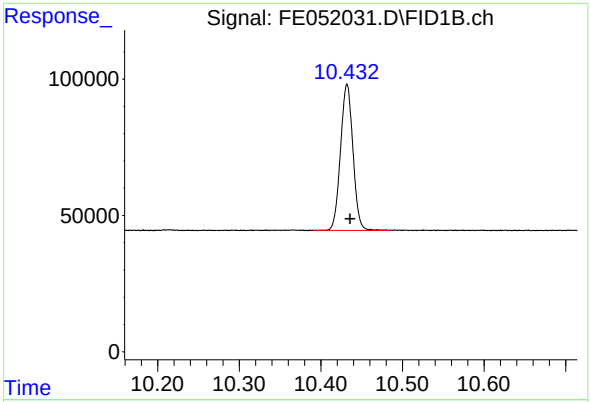
#3 N-DODECANE

R.T.: 7.033 min
Delta R.T.: -0.003 min
Response: 524622
Conc: 5.57 ug/ml



#4 N-TETRADECANE

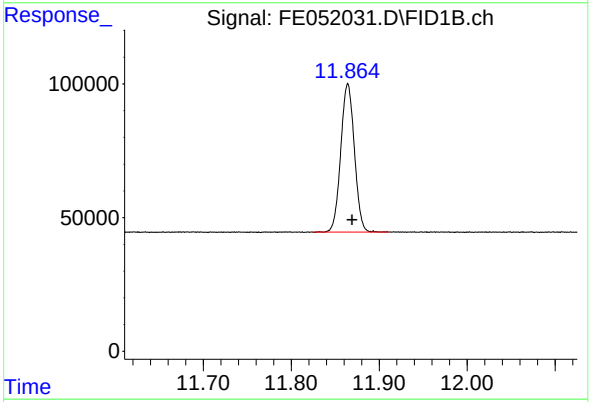
R.T.: 8.839 min
Delta R.T.: -0.003 min
Response: 538294
Conc: 5.64 ug/ml



#5 N-HEXADECANE

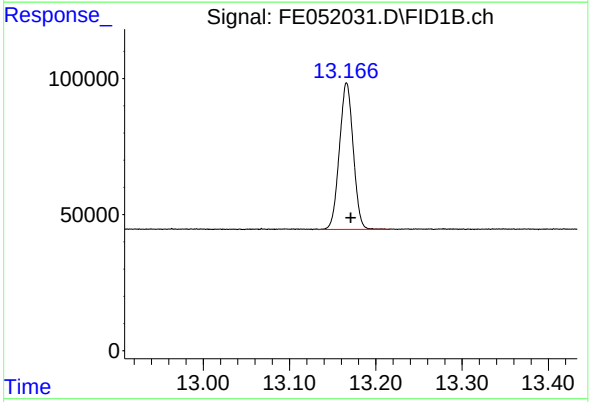
R.T.: 10.432 min
Delta R.T.: -0.003 min
Response: 566935
Conc: 5.68 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



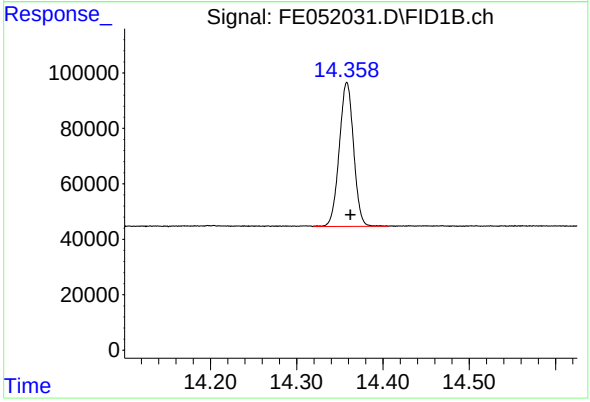
#6 N-OCTADECANE

R.T.: 11.864 min
Delta R.T.: -0.005 min
Response: 597723
Conc: 5.70 ug/ml



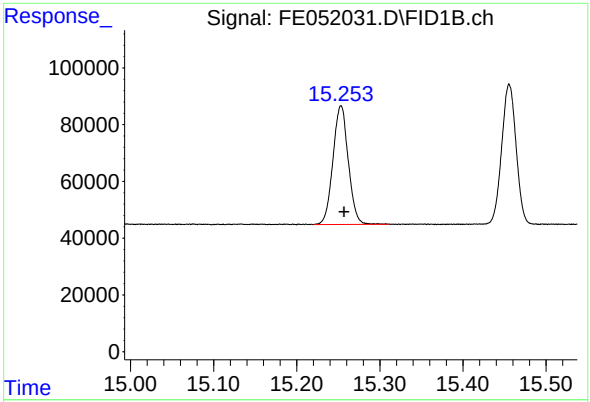
#7 N-EICOSANE

R.T.: 13.166 min
Delta R.T.: -0.005 min
Response: 599565
Conc: 5.77 ug/ml



#8 N-DOCOSANE

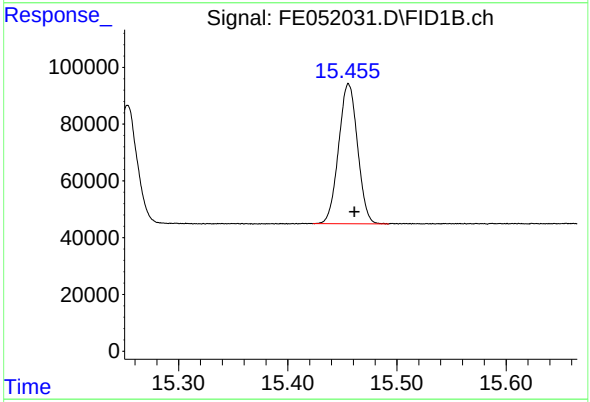
R.T.: 14.358 min
Delta R.T.: -0.004 min
Response: 599958
Conc: 5.80 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

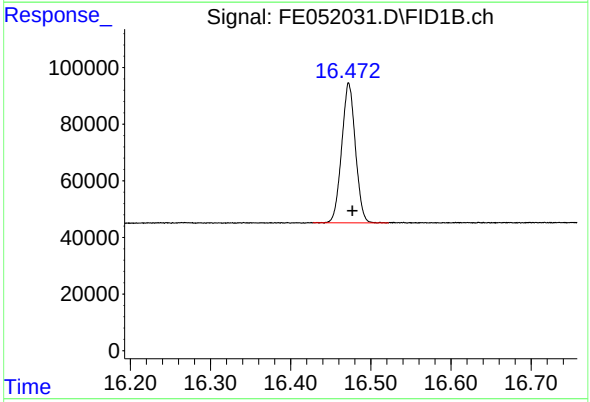
R.T.: 15.253 min
Delta R.T.: -0.004 min
Response: 535796
Conc: 5.75 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



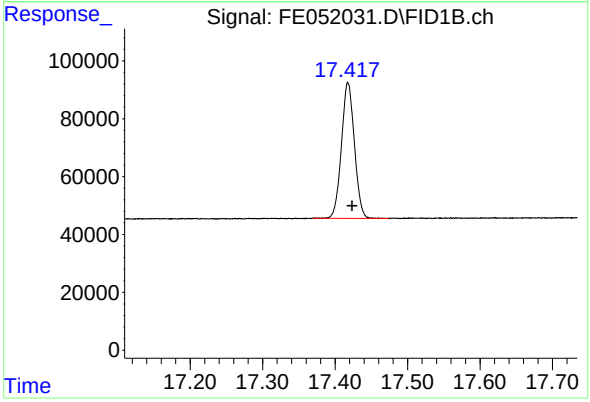
#10 N-TETRACOSANE

R.T.: 15.456 min
Delta R.T.: -0.005 min
Response: 594003
Conc: 5.75 ug/ml



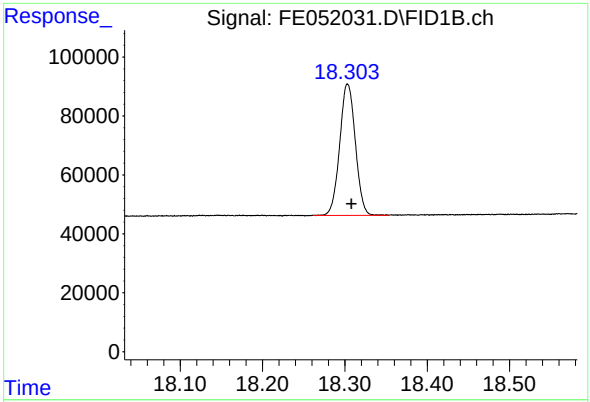
#11 N-HEXACOSANE

R.T.: 16.473 min
Delta R.T.: -0.004 min
Response: 585191
Conc: 5.75 ug/ml



#12 N-OCTACOSANE

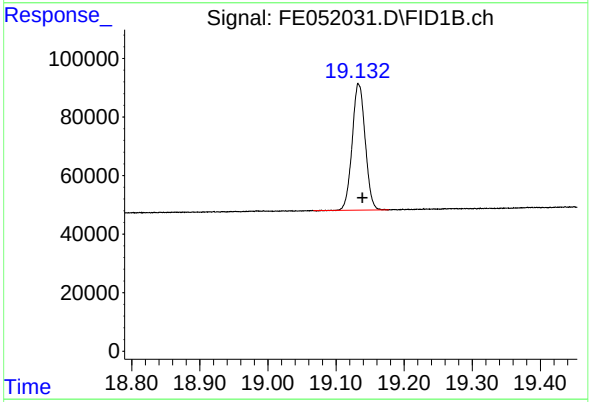
R.T.: 17.418 min
Delta R.T.: -0.006 min
Response: 583549
Conc: 5.79 ug/ml



#13 N-TRIACONTANE

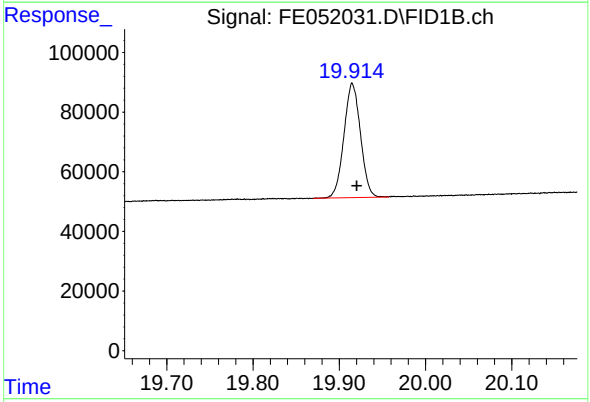
R.T.: 18.303 min
Delta R.T.: -0.005 min
Response: 588228
Conc: 5.91 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



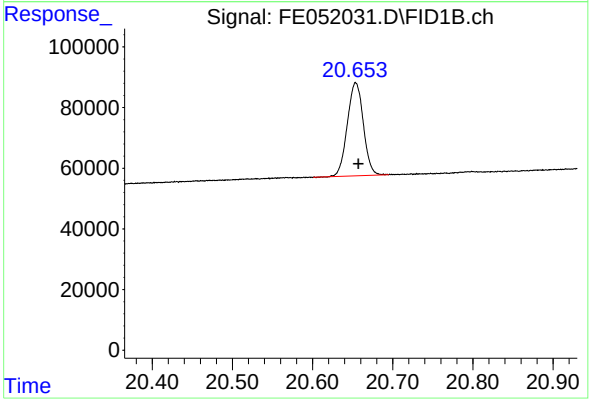
#14 N-DOTRIACONTANE

R.T.: 19.133 min
Delta R.T.: -0.006 min
Response: 573000
Conc: 5.93 ug/ml



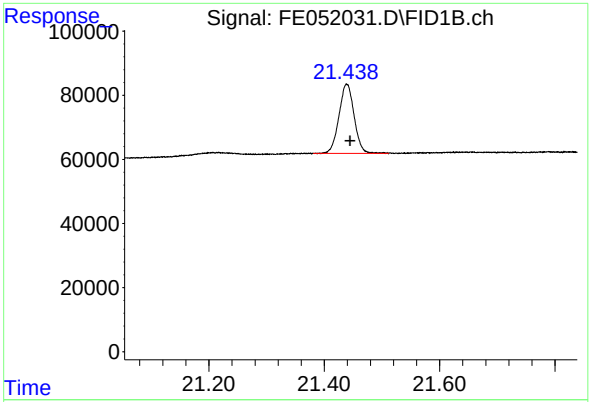
#15 N-TETRATRIACONTANE

R.T.: 19.915 min
Delta R.T.: -0.005 min
Response: 509659
Conc: 5.87 ug/ml



#16 N-HEXATRIACONTANE

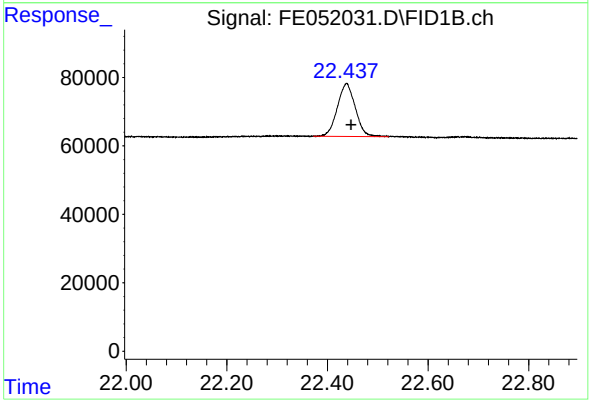
R.T.: 20.654 min
Delta R.T.: -0.004 min
Response: 427588
Conc: 5.74 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.006 min
Response: 394101
Conc: 5.72 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.438 min
Delta R.T.: -0.009 min
Response: 382667
Conc: 5.69 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.380	2.477	BB	34060	447517	74.59%	4.697%
2	4.906	4.868	4.948	BB	50588	479458	79.92%	5.032%
3	7.033	6.997	7.086	BB	55038	524622	87.44%	5.506%
4	8.839	8.809	8.900	BB	53958	538294	89.72%	5.650%
5	10.432	10.391	10.483	BB	53629	566935	94.50%	5.950%
6	11.864	11.825	11.911	BB	55566	597723	99.63%	6.273%
7	13.166	13.127	13.215	BB	53796	599565	99.93%	6.293%
8	14.358	14.319	14.406	BB	51982	599958	100.00%	6.297%
9	15.253	15.220	15.311	BB	41765	535796	89.31%	5.623%
10	15.456	15.423	15.492	BB	49424	594003	99.01%	6.234%
11	16.473	16.428	16.522	BB	49428	585191	97.54%	6.142%
12	17.418	17.370	17.474	BB	46813	583549	97.26%	6.125%
13	18.303	18.261	18.353	BB	44585	588228	98.04%	6.174%
14	19.133	19.066	19.177	BB	42966	573000	95.51%	6.014%
15	19.915	19.870	19.957	BB	38416	509659	84.95%	5.349%
16	20.654	20.601	20.695	BB	30739	427588	71.27%	4.488%
17	21.439	21.381	21.511	BB	21574	394101	65.69%	4.136%
18	22.438	22.371	22.521	BB	15521	382667	63.78%	4.016%
			Sum of corrected areas:			9527854		

FE012325.M Fri Jan 24 03:20:00 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Operator : YP\AJ
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
FE012325ICV

Integration File: autoint1.e
Quant Time: Jan 24 03:09:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.256	4666211	46.850 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	3991003	46.799 ug/ml
2)	N-DECANE	4.906	4296957	46.959 ug/ml
3)	N-DODECANE	7.035	4687706	46.917 ug/ml
4)	N-TETRADECANE	8.841	4758083	46.764 ug/ml
5)	N-HEXADECANE	10.434	4984676	46.779 ug/ml
6)	N-OCTADECANE	11.868	5255597	46.874 ug/ml
7)	N-EICOSANE	13.169	5213798	46.811 ug/ml
8)	N-DOCOSANE	14.361	5190938	46.752 ug/ml
10)	N-TETRACOSANE	15.459	5183378	46.861 ug/ml
11)	N-HEXACOSANE	16.476	5097911	46.766 ug/ml
12)	N-OCTACOSANE	17.423	5031236	46.612 ug/ml
13)	N-TRIACONTANE	18.307	4962414	46.248 ug/ml
14)	N-DOTRIACONTANE	19.138	4809025	46.056 ug/ml
15)	N-TETRATRIACONTANE	19.918	4322160	46.027 ug/ml
16)	N-HEXATRIACONTANE	20.656	3695277	45.760 ug/ml
17)	N-OCTATRIACONTANE	21.442	3418238	45.815 ug/ml
18)	N-TETRACONTANE	22.445	3353522	45.536 ug/ml

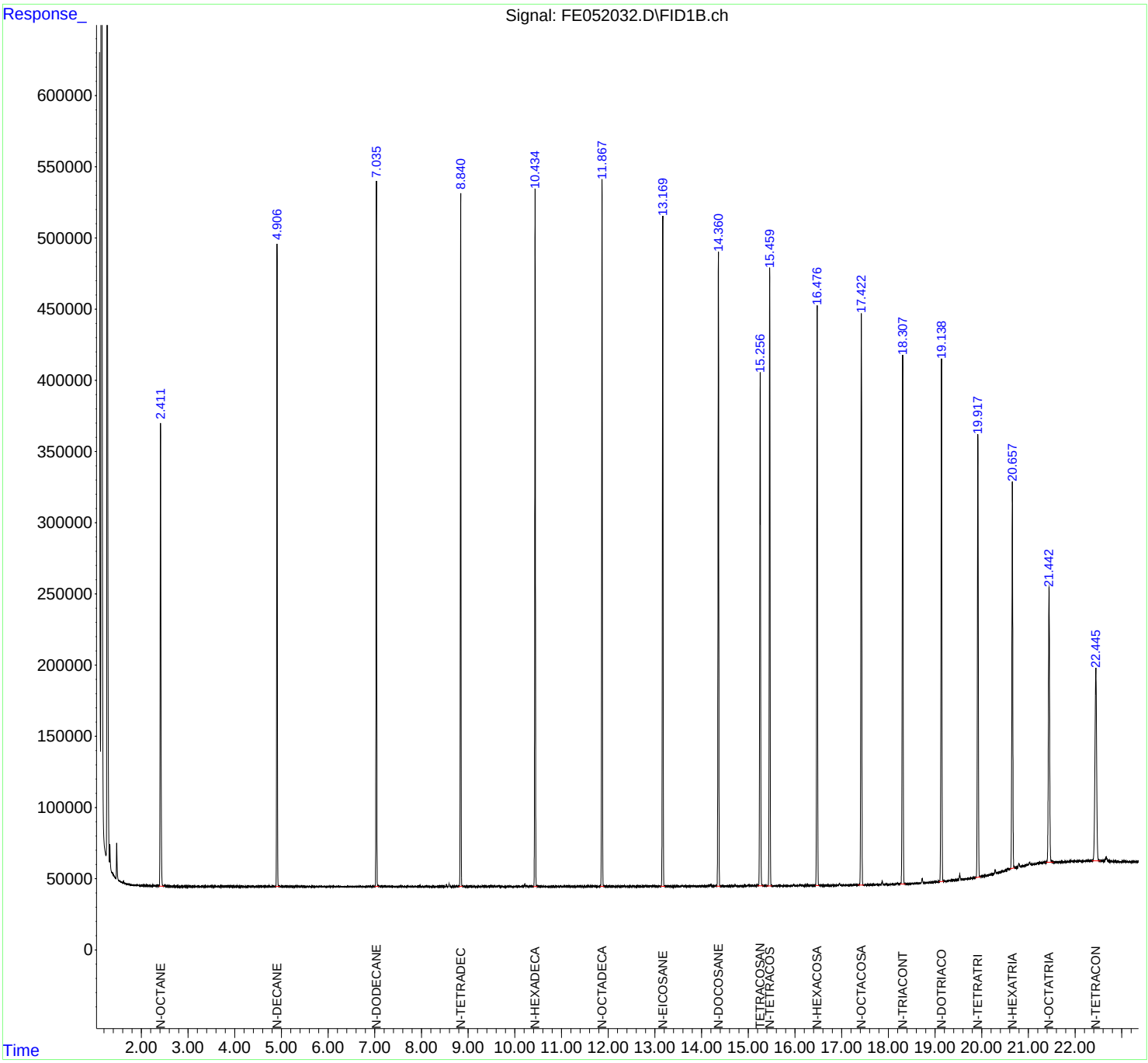
(f)=RT Delta > 1/2 Window (m)=manual int.

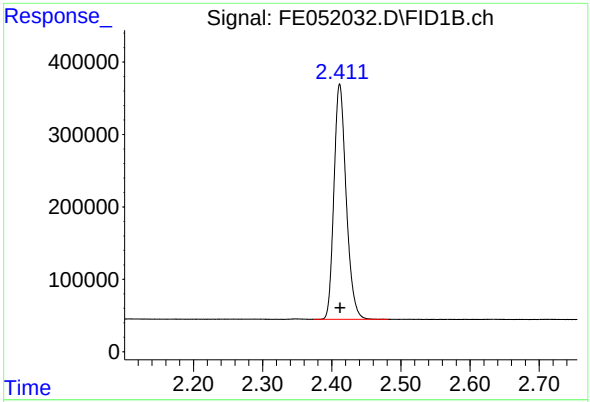
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Operator : YP\AJ
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
FE012325ICV

Integration File: autoint1.e
Quant Time: Jan 24 03:09:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

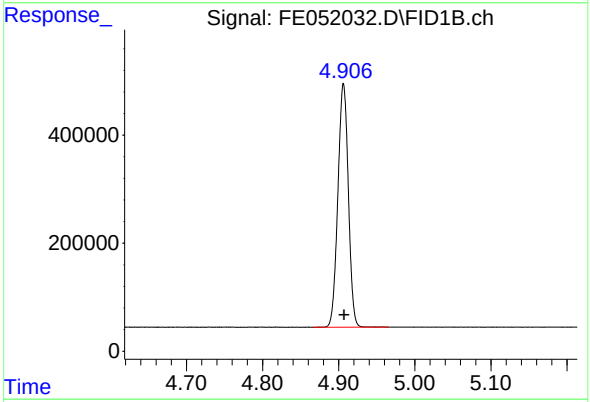




#1 N-OCTANE

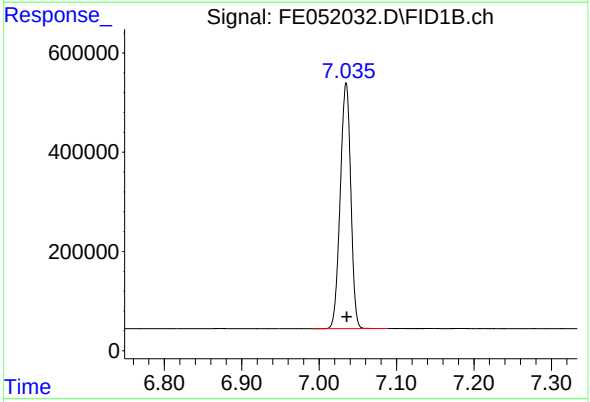
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 3991003
Conc: 46.80 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



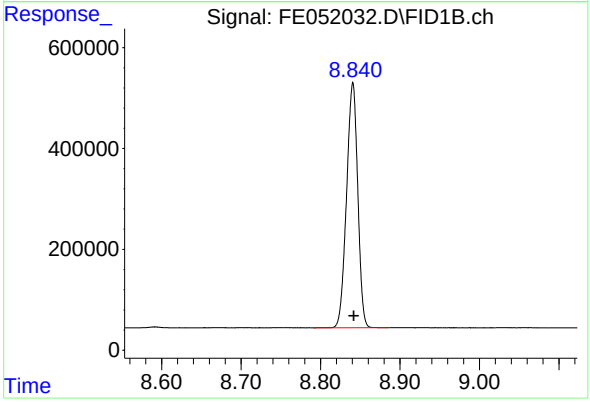
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: 0.000 min
Response: 4296957
Conc: 46.96 ug/ml



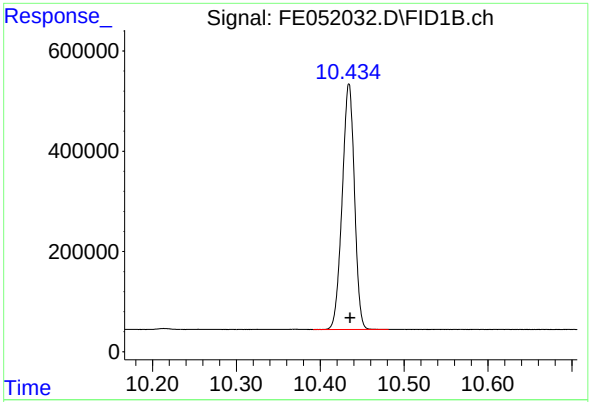
#3 N-DODECANE

R.T.: 7.035 min
Delta R.T.: 0.000 min
Response: 4687706
Conc: 46.92 ug/ml



#4 N-TETRADECANE

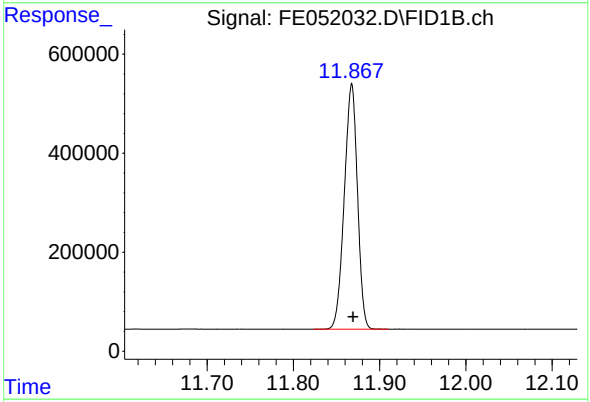
R.T.: 8.841 min
Delta R.T.: -0.001 min
Response: 4758083
Conc: 46.76 ug/ml



#5 N-HEXADECANE

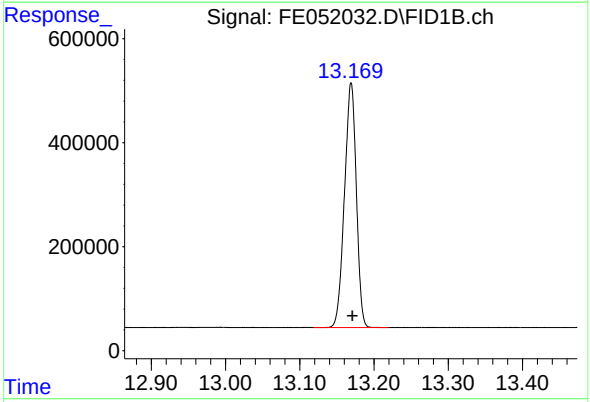
R.T.: 10.434 min
Delta R.T.: -0.001 min
Response: 4984676
Conc: 46.78 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



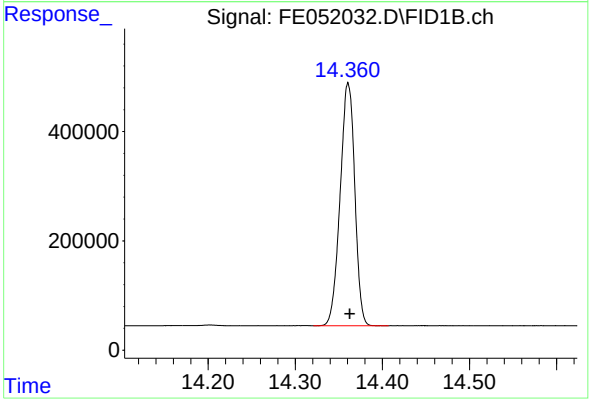
#6 N-OCTADECANE

R.T.: 11.868 min
Delta R.T.: -0.001 min
Response: 5255597
Conc: 46.87 ug/ml



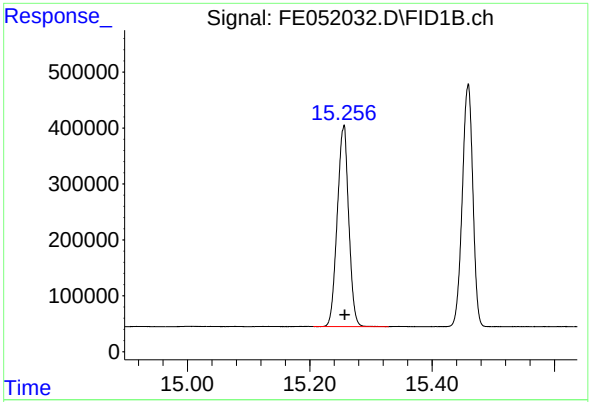
#7 N-EICOSANE

R.T.: 13.169 min
Delta R.T.: -0.002 min
Response: 5213798
Conc: 46.81 ug/ml



#8 N-DOCOSANE

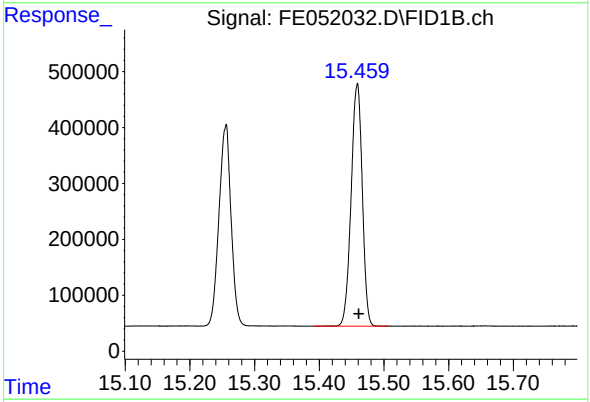
R.T.: 14.361 min
Delta R.T.: -0.002 min
Response: 5190938
Conc: 46.75 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

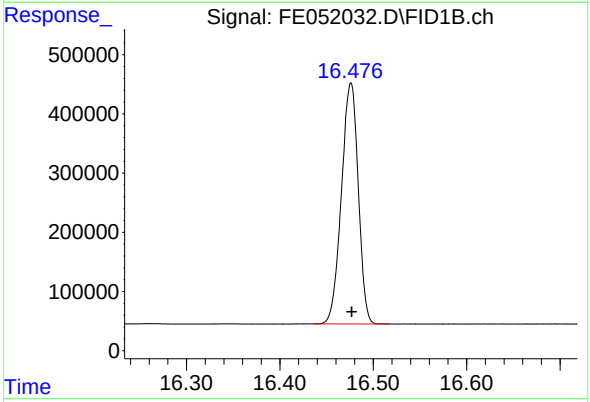
R.T.: 15.256 min
Delta R.T.: -0.001 min
Response: 4666211
Conc: 46.85 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



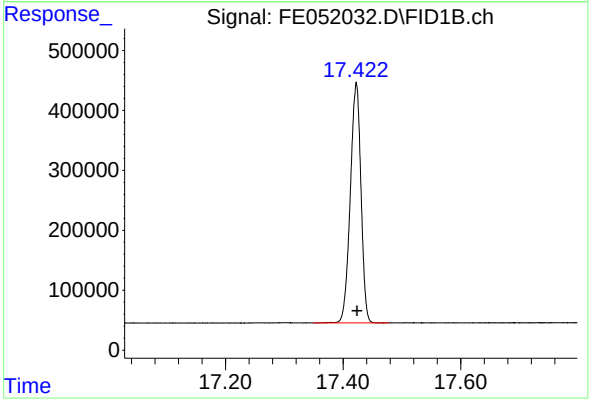
#10 N-TETRACOSANE

R.T.: 15.459 min
Delta R.T.: -0.002 min
Response: 5183378
Conc: 46.86 ug/ml



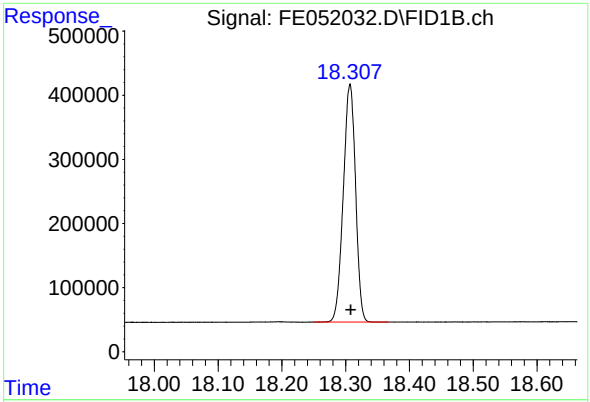
#11 N-HEXACOSANE

R.T.: 16.476 min
Delta R.T.: 0.000 min
Response: 5097911
Conc: 46.77 ug/ml



#12 N-OCTACOSANE

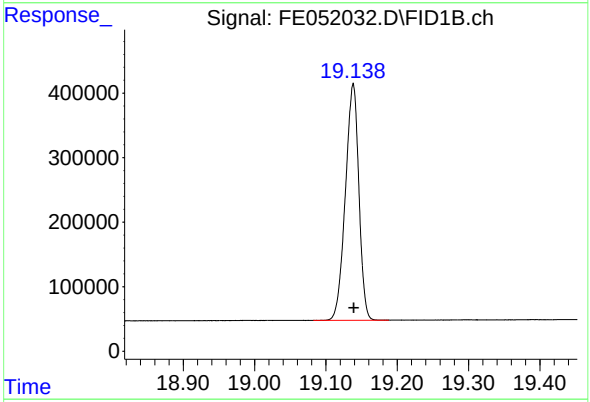
R.T.: 17.423 min
Delta R.T.: -0.001 min
Response: 5031236
Conc: 46.61 ug/ml



#13 N-TRIACONTANE

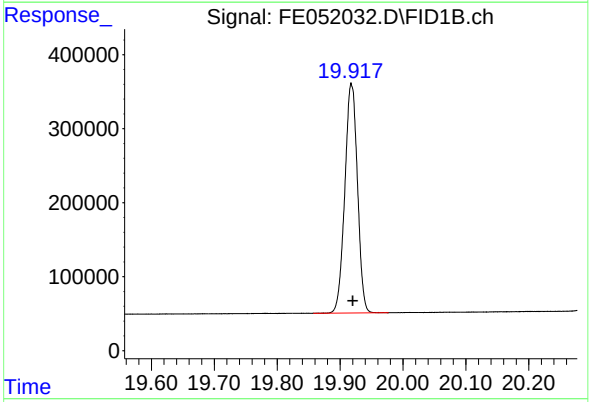
R.T.: 18.307 min
Delta R.T.: -0.001 min
Response: 4962414
Conc: 46.25 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



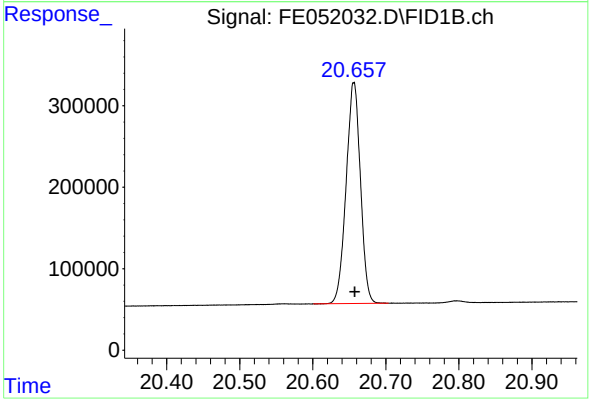
#14 N-DOTRIACONTANE

R.T.: 19.138 min
Delta R.T.: 0.000 min
Response: 4809025
Conc: 46.06 ug/ml



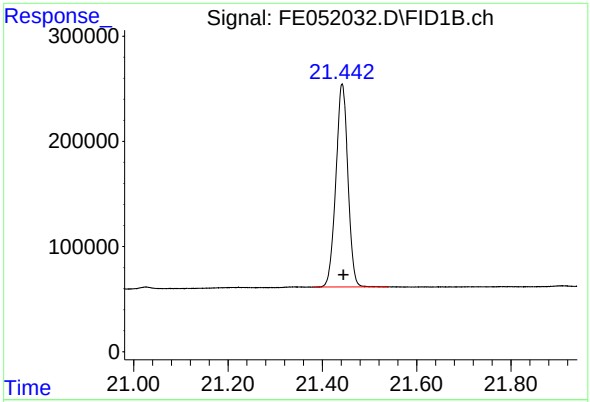
#15 N-TETRATRIACONTANE

R.T.: 19.918 min
Delta R.T.: -0.002 min
Response: 4322160
Conc: 46.03 ug/ml



#16 N-HEXATRIACONTANE

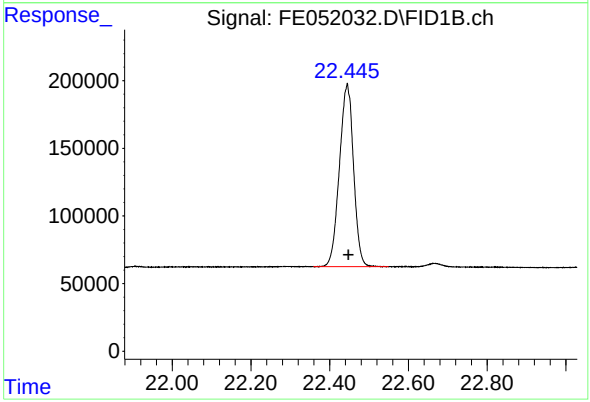
R.T.: 20.656 min
Delta R.T.: -0.001 min
Response: 3695277
Conc: 45.76 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.442 min
Delta R.T.: -0.003 min
Response: 3418238
Conc: 45.81 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



#18 N-TETRACONTANE

R.T.: 22.445 min
Delta R.T.: -0.003 min
Response: 3353522
Conc: 45.54 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.373	2.482	BB	325149	3991003	75.94%	4.813%
2	4.906	4.866	4.966	BB	450862	4296957	81.76%	5.182%
3	7.035	6.992	7.090	BB	495564	4687706	89.19%	5.653%
4	8.841	8.791	8.886	BB	486321	4758083	90.53%	5.738%
5	10.434	10.391	10.481	BB	490371	4984676	94.85%	6.012%
6	11.868	11.823	11.911	BB	496666	5255597	100.00%	6.338%
7	13.169	13.118	13.220	BB	470899	5213798	99.20%	6.288%
8	14.361	14.321	14.407	BB	444530	5190938	98.77%	6.260%
9	15.256	15.206	15.329	BB	358694	4666211	88.79%	5.627%
10	15.459	15.391	15.507	BB	433536	5183378	98.63%	6.251%
11	16.476	16.436	16.516	BB	407354	5097911	97.00%	6.148%
12	17.423	17.349	17.477	BB	400863	5031236	95.73%	6.068%
13	18.307	18.249	18.367	BB	371955	4962414	94.42%	5.985%
14	19.138	19.082	19.188	BB	366172	4809025	91.50%	5.800%
15	19.918	19.857	19.977	BB	309597	4322160	82.24%	5.213%
16	20.656	20.601	20.704	BB	270798	3695277	70.31%	4.457%
17	21.442	21.381	21.541	BB	193087	3418238	65.04%	4.122%
18	22.445	22.358	22.550	BB	135556	3353522	63.81%	4.044%
			Sum of corrected areas:			82918129		

FE012325.M Fri Jan 24 03:20:42 2025

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

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

Calibration Sequence : FG011325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
500	78963406	157927	FG015057.D
200	26178445	130892	FG015058.D
100	14314421	143144	FG015059.D
50	7127024	142540	FG015060.D
1000	126807043	126807	FG015061.D
AVG RF : 140262	**% RSD : 8.691**		**AVG RT : 15.0514**

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015057.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 09:45
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 10:10:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 10:10:17 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
9) S	TETRACOSANE-d50 (SURR...	15.054	7020283	50.000 ug/ml
Target Compounds				
1)	N-OCTANE	2.014	6179916	50.000 ug/ml
2)	N-DECANE	4.549	7270974	50.000 ug/ml
3)	N-DODECANE	6.730	7616617	50.000 ug/ml
4)	N-TETRADECANE	8.567	7839892	50.000 ug/ml
5)	N-HEXADECANE	10.182	7974057	50.000 ug/ml
6)	N-OCTADECANE	11.633	8177811	50.000 ug/ml
7)	N-EICOSANE	12.948	8277142	50.000 ug/ml
8)	N-DOCOSANE	14.150	8032457	50.000 ug/ml
10)	N-TETRACOSANE	15.259	7977467	50.000 ug/ml
11)	N-HEXACOSANE	16.285	7920800	50.000 ug/ml
12)	N-OCTACOSANE	17.238	7876189	50.000 ug/ml
13)	N-TRIACONTANE	18.129	8146929	50.000 ug/ml
14)	N-DOTRIACONTANE	18.963	7971620	50.000 ug/ml
15)	N-TETRATRIACONTANE	19.748	7395720	50.000 ug/ml
16)	N-HEXATRIACONTANE	20.490	6634985	50.000 ug/ml
17)	N-OCTATRIACONTANE	21.240	6083503	50.000 ug/ml
18)	N-TETRACONTANE	22.181	5653958	50.000 ug/ml

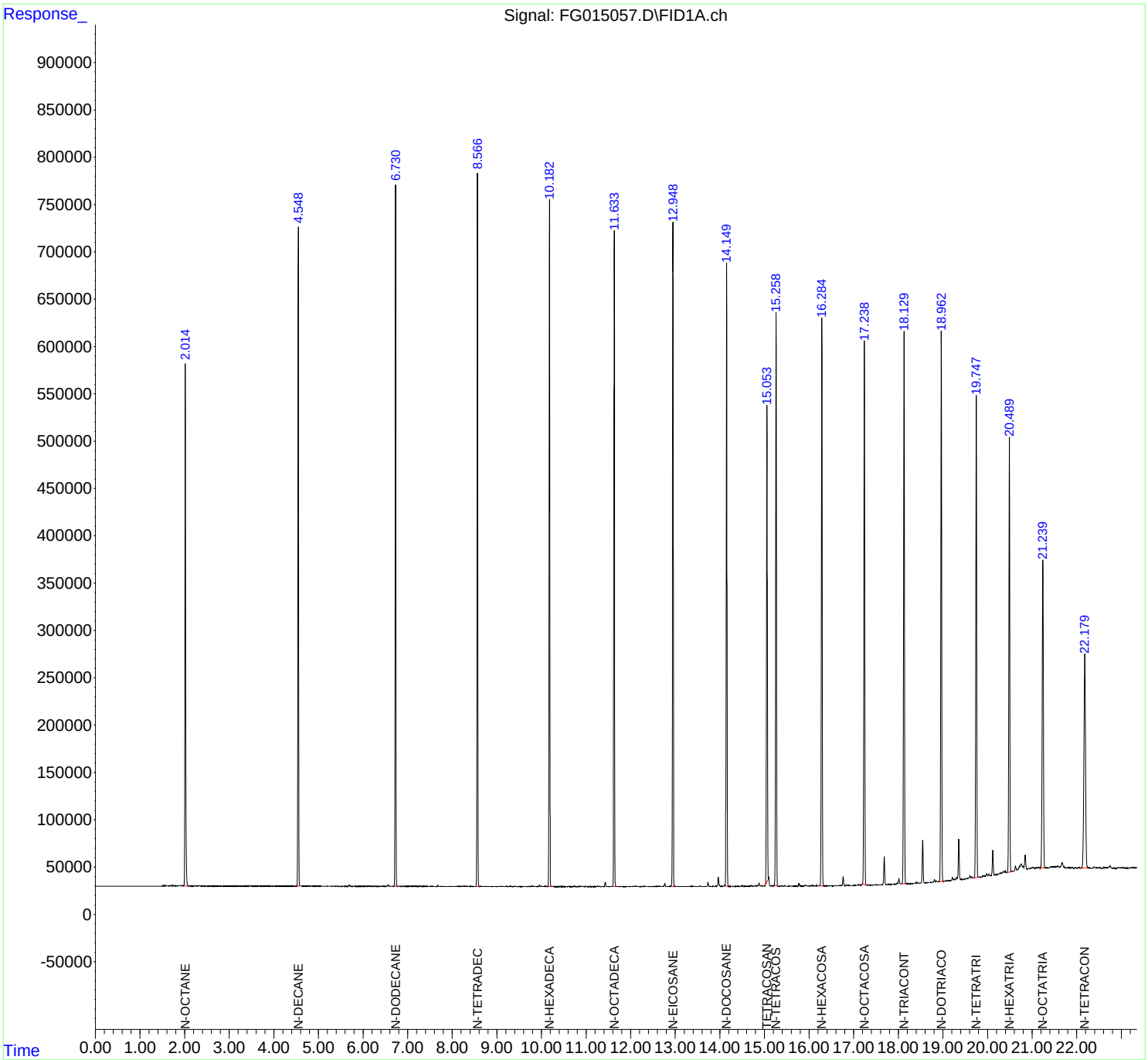
(f)=RT Delta > 1/2 Window (m)=manual int.

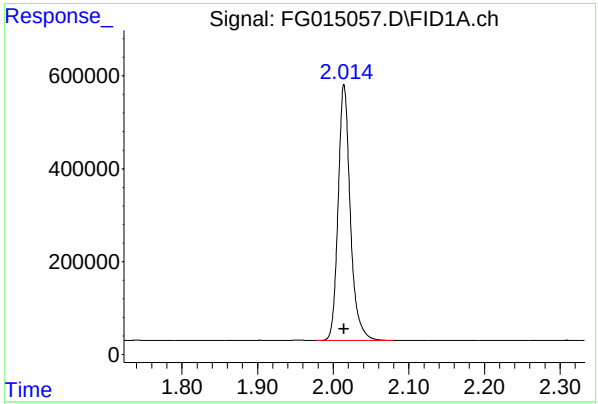
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015057.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 09:45
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 10:10:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 10:10:17 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

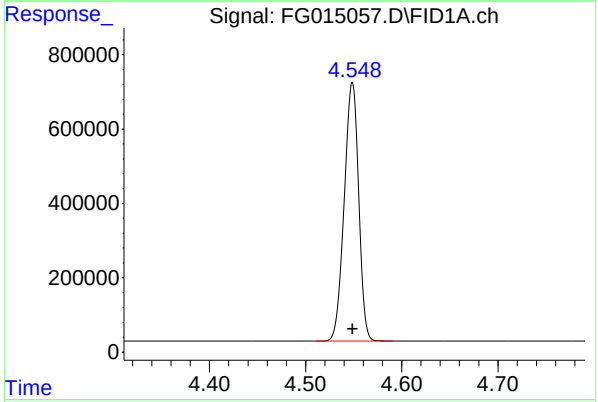




#1 N-OCTANE

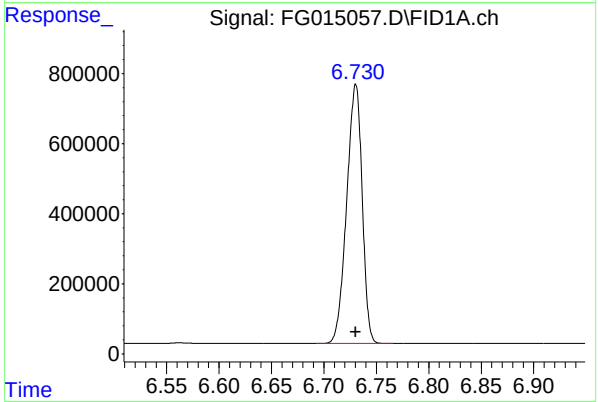
R.T.: 2.014 min
Delta R.T.: 0.000 min
Response: 6179916
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



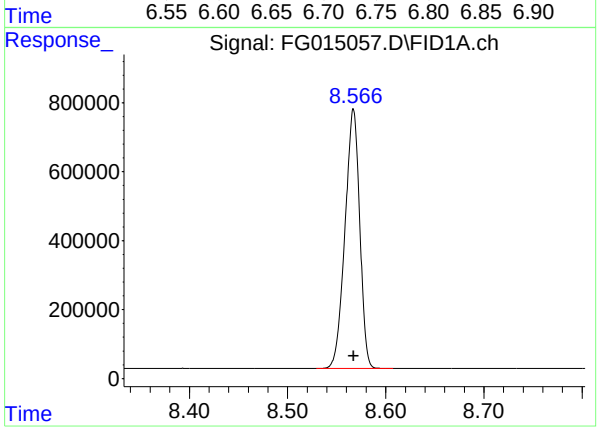
#2 N-DECANE

R.T.: 4.549 min
Delta R.T.: 0.000 min
Response: 7270974
Conc: 50.00 ug/ml



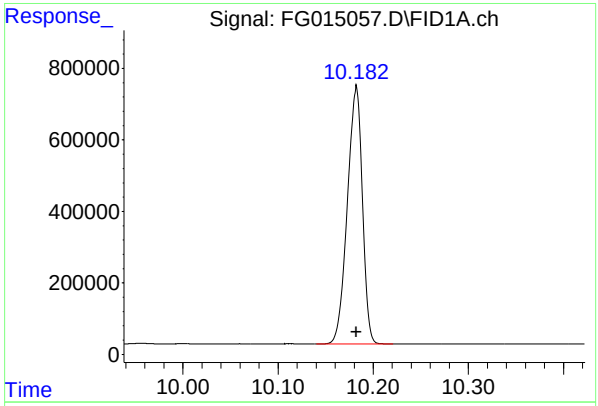
#3 N-DODECANE

R.T.: 6.730 min
Delta R.T.: 0.000 min
Response: 7616617
Conc: 50.00 ug/ml



#4 N-TETRADECANE

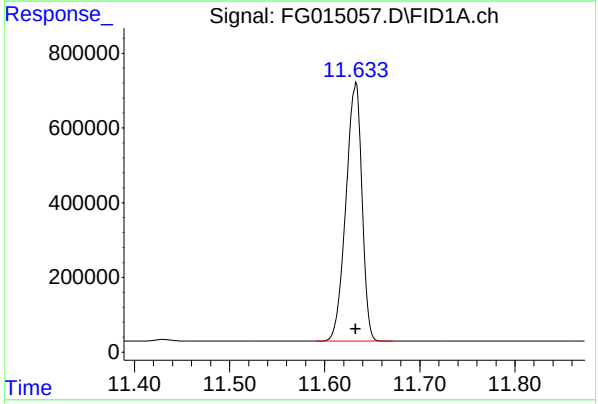
R.T.: 8.567 min
Delta R.T.: 0.000 min
Response: 7839892
Conc: 50.00 ug/ml



#5 N-HEXADECANE

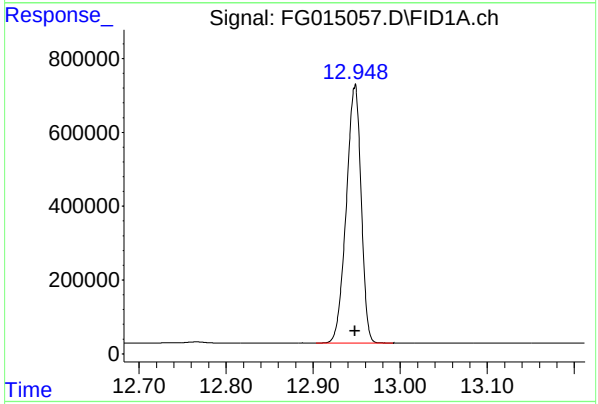
R.T.: 10.182 min
Delta R.T.: 0.000 min
Response: 7974057
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



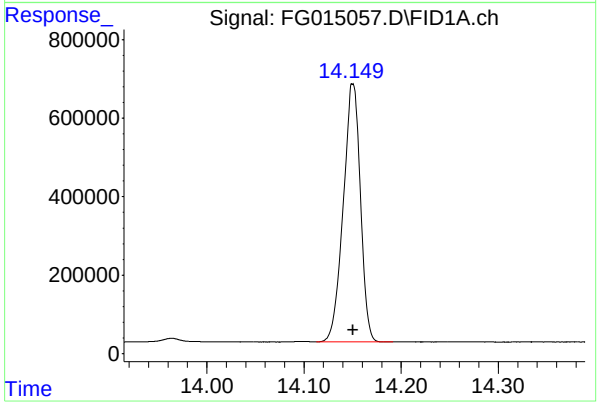
#6 N-OCTADECANE

R.T.: 11.633 min
Delta R.T.: 0.000 min
Response: 8177811
Conc: 50.00 ug/ml



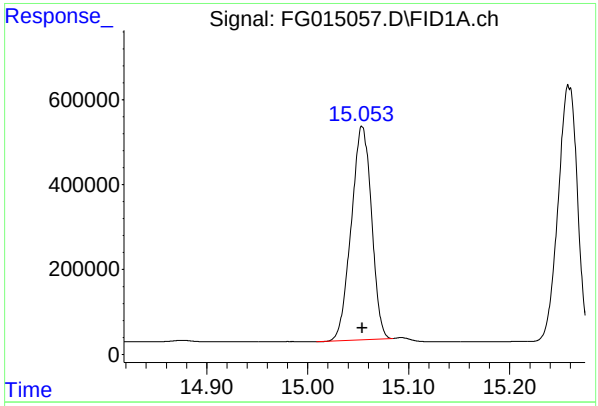
#7 N-EICOSANE

R.T.: 12.948 min
Delta R.T.: 0.000 min
Response: 8277142
Conc: 50.00 ug/ml



#8 N-DOCOSANE

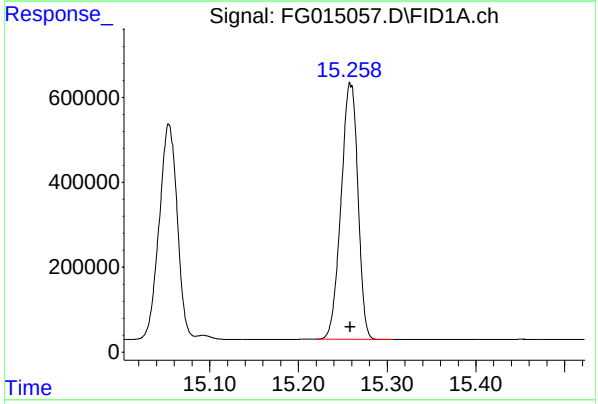
R.T.: 14.150 min
Delta R.T.: 0.000 min
Response: 8032457
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

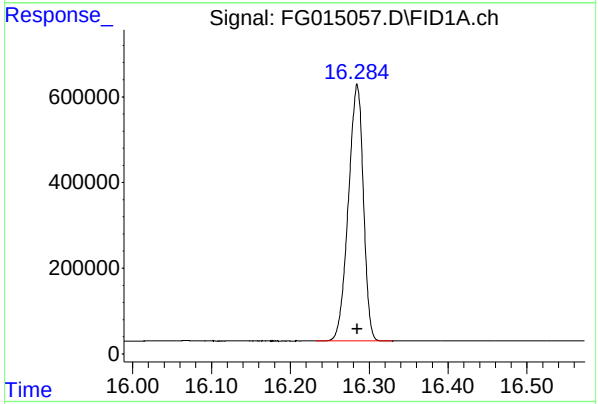
R.T.: 15.054 min
Delta R.T.: 0.000 min
Response: 7020283
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



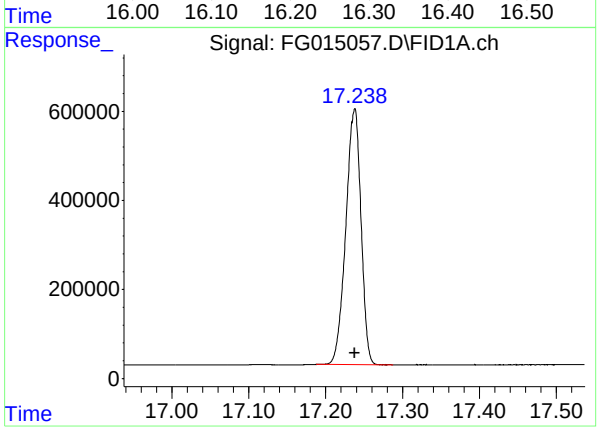
#10 N-TETRACOSANE

R.T.: 15.259 min
Delta R.T.: 0.000 min
Response: 7977467
Conc: 50.00 ug/ml



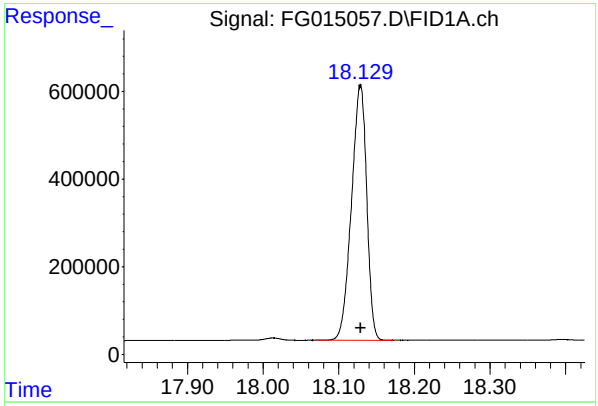
#11 N-HEXACOSANE

R.T.: 16.285 min
Delta R.T.: 0.000 min
Response: 7920800
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

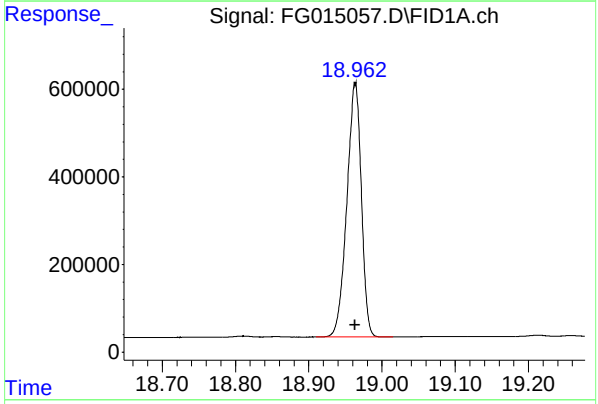
R.T.: 17.238 min
Delta R.T.: 0.000 min
Response: 7876189
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

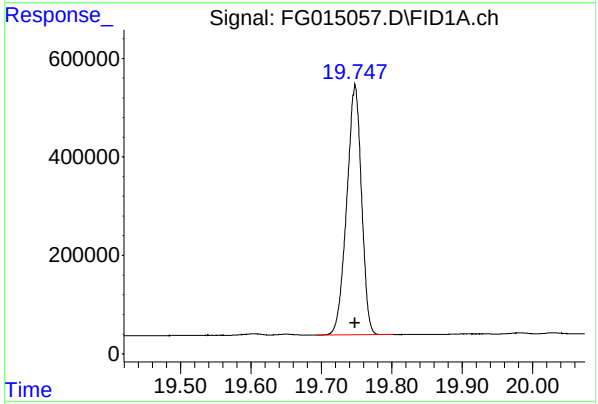
R.T.: 18.129 min
Delta R.T.: 0.000 min
Response: 8146929
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



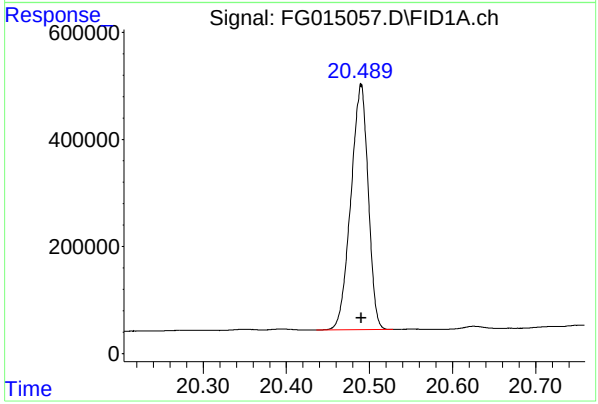
#14 N-DOTRIACONTANE

R.T.: 18.963 min
Delta R.T.: 0.000 min
Response: 7971620
Conc: 50.00 ug/ml



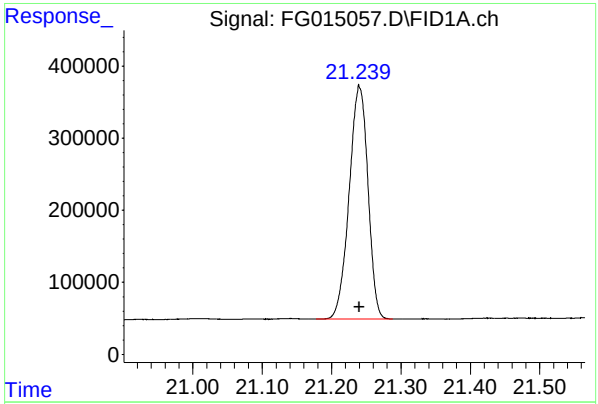
#15 N-TETRATRIACONTANE

R.T.: 19.748 min
Delta R.T.: 0.000 min
Response: 7395720
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

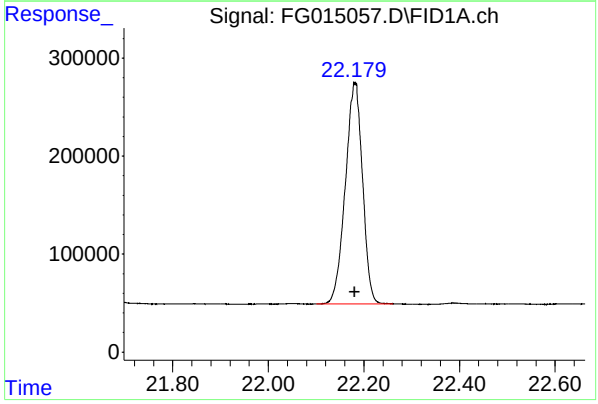
R.T.: 20.490 min
Delta R.T.: 0.000 min
Response: 6634985
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.240 min
Delta R.T.: 0.000 min
Response: 6083503
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.181 min
Delta R.T.: 0.000 min
Response: 5653958
Conc: 50.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015057.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 09:45
Sample : 50 TRPH STD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.014	1.978	2.079	BB	551414	6179916	74.66%	4.610%
2	4.549	4.511	4.591	BB	696147	7270974	87.84%	5.424%
3	6.730	6.692	6.766	BB	739657	7616617	92.02%	5.682%
4	8.567	8.529	8.607	BB	750879	7839892	94.72%	5.848%
5	10.182	10.140	10.221	BB	724423	7974057	96.34%	5.949%
6	11.633	11.591	11.672	BB	690757	8177811	98.80%	6.101%
7	12.948	12.903	12.992	BB	698654	8277142	100.00%	6.175%
8	14.150	14.113	14.192	BB	656408	8032457	97.04%	5.992%
9	15.054	15.008	15.084	BV	501666	7020283	84.82%	5.237%
10	15.259	15.220	15.307	BB	601503	7977467	96.38%	5.951%
11	16.285	16.233	16.330	BB	597903	7920800	95.69%	5.909%
12	17.238	17.188	17.288	BB	574153	7876189	95.16%	5.876%
13	18.129	18.070	18.172	BB	577515	8146929	98.43%	6.078%
14	18.963	18.910	19.015	BB	575018	7971620	96.31%	5.947%
15	19.748	19.693	19.802	BB	508301	7395720	89.35%	5.517%
16	20.490	20.436	20.528	BB	454742	6634985	80.16%	4.950%
17	21.240	21.178	21.288	BB	321864	6083503	73.50%	4.538%
18	22.181	22.100	22.261	BB	226107	5653958	68.31%	4.218%

Sum of corrected areas: 134050320

FG011325.M Mon Jan 13 12:12:21 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015058.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:14
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 10:27:30 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 10:27:15 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
9) S	TETRACOSANE-d50 (SURR...	15.050	2426477	18.992 ug/ml
Target Compounds				
1)	N-OCTANE	2.011	2347743	19.557 ug/ml
2)	N-DECANE	4.546	2412466	18.647 ug/ml
3)	N-DODECANE	6.726	2548018	18.721 ug/ml
4)	N-TETRADECANE	8.563	2539205	18.520 ug/ml
5)	N-HEXADECANE	10.178	2630204	18.675 ug/ml
6)	N-OCTADECANE	11.627	2743181	18.799 ug/ml
7)	N-EICOSANE	12.943	2706469	18.626 ug/ml
8)	N-DOCOSANE	14.146	2682390	18.773 ug/ml
10)	N-TETRACOSANE	15.255	2673287	18.803 ug/ml
11)	N-HEXACOSANE	16.279	2631421	18.757 ug/ml
12)	N-OCTACOSANE	17.233	2611804	18.837 ug/ml
13)	N-TRIACONTANE	18.124	2626561	18.792 ug/ml
14)	N-DOTRIACONTANE	18.959	2540319	18.739 ug/ml
15)	N-TETRATRIACONTANE	19.744	2210732	18.063 ug/ml
16)	N-HEXATRIACONTANE	20.486	1807283	17.100 ug/ml
17)	N-OCTATRIACONTANE	21.237	1610414	16.801 ug/ml
18)	N-TETRACONTANE	22.177	1490070	16.833 ug/ml

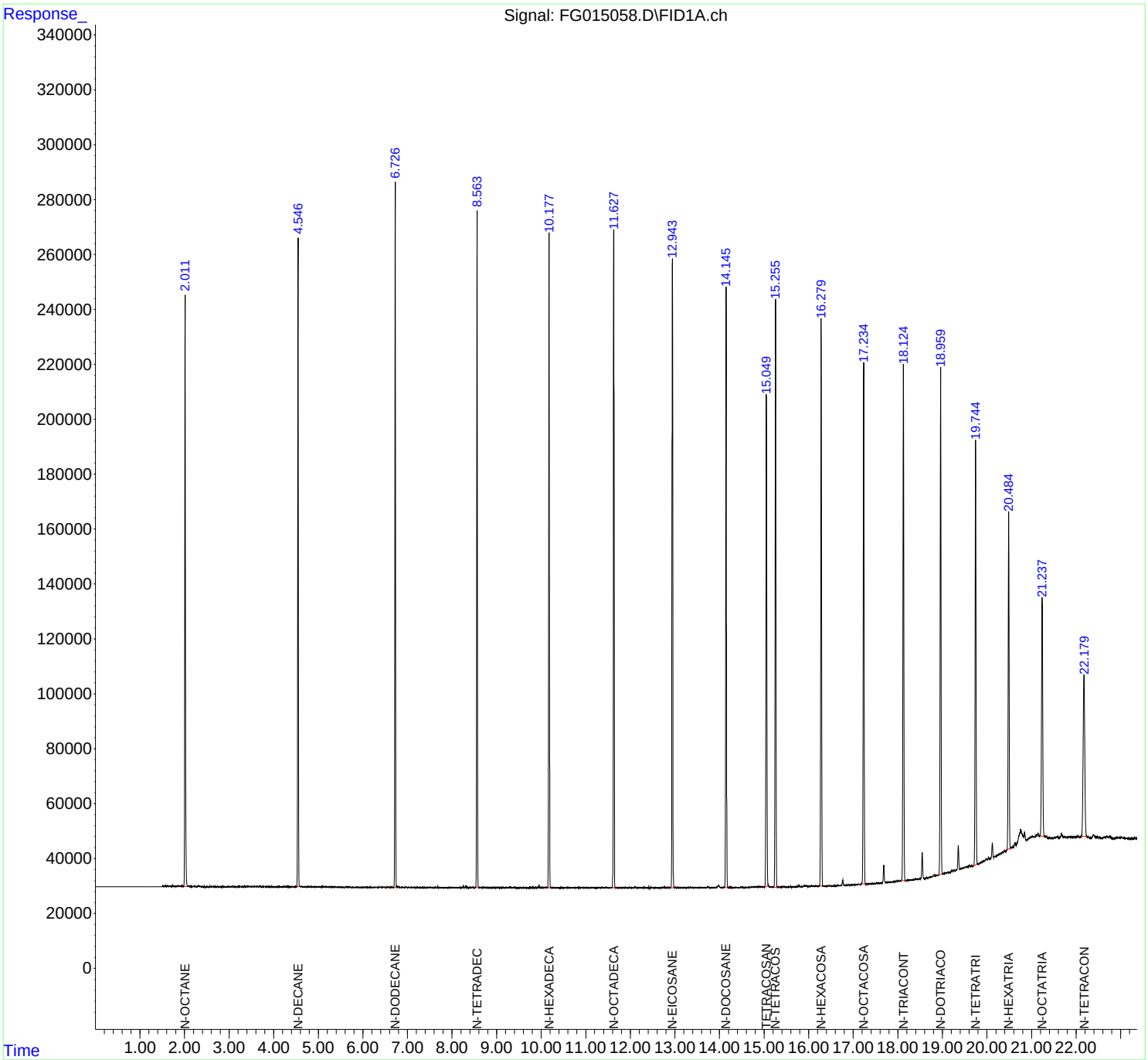
(f)=RT Delta > 1/2 Window (m)=manual int.

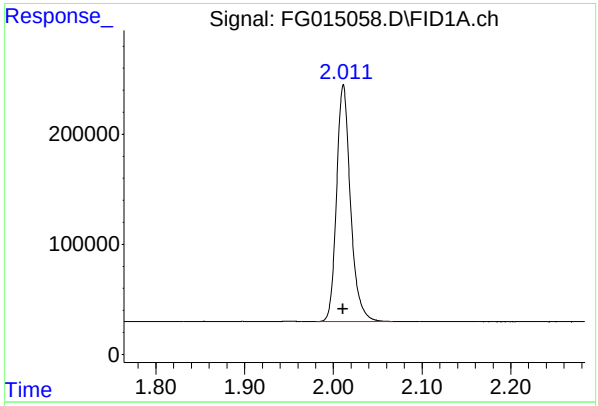
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015058.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:14
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 10:27:30 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 10:27:15 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

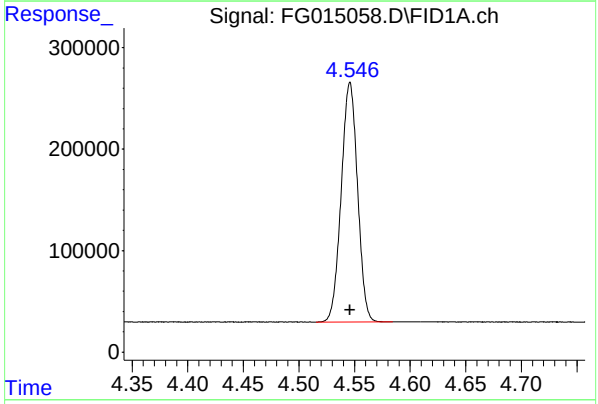




#1 N-OCTANE

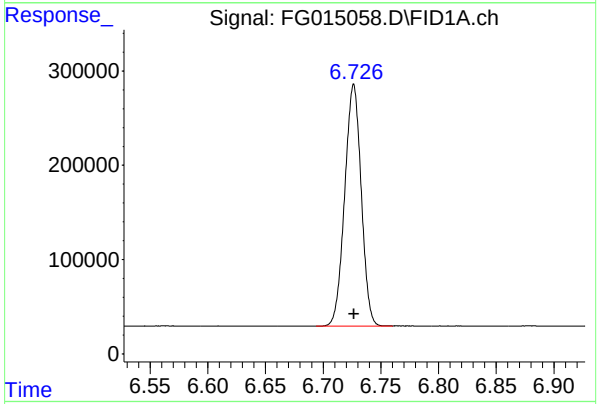
R.T.: 2.011 min
Delta R.T.: 0.000 min
Response: 2347743
Conc: 19.56 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



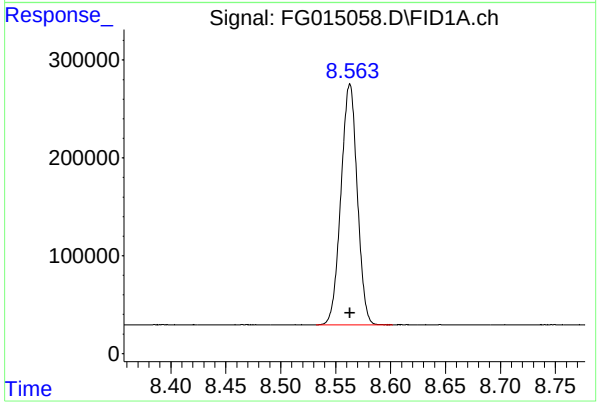
#2 N-DECANE

R.T.: 4.546 min
Delta R.T.: 0.000 min
Response: 2412466
Conc: 18.65 ug/ml



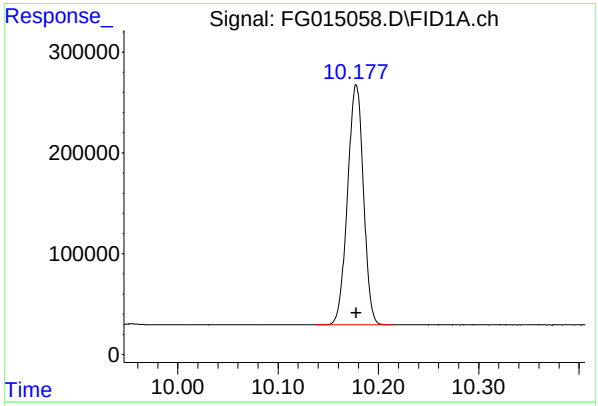
#3 N-DODECANE

R.T.: 6.726 min
Delta R.T.: 0.000 min
Response: 2548018
Conc: 18.72 ug/ml



#4 N-TETRADECANE

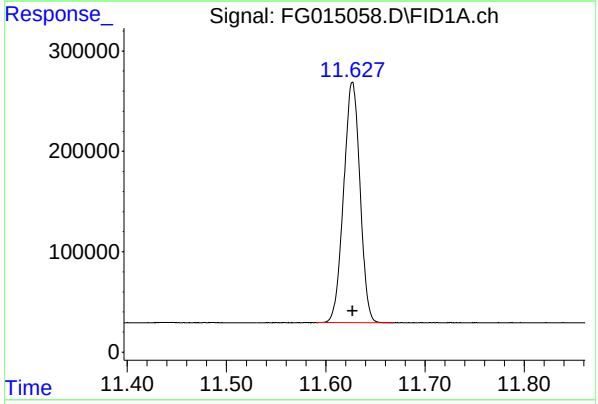
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 2539205
Conc: 18.52 ug/ml



#5 N-HEXADECANE

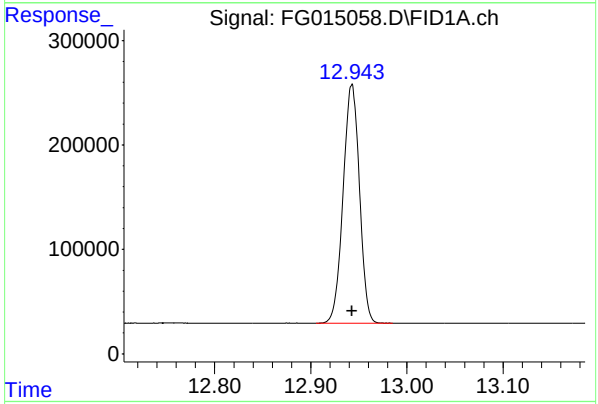
R.T.: 10.178 min
Delta R.T.: 0.000 min
Response: 2630204
Conc: 18.68 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



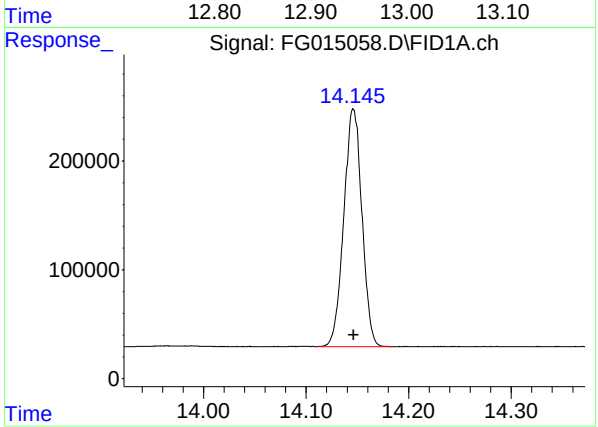
#6 N-OCTADECANE

R.T.: 11.627 min
Delta R.T.: 0.000 min
Response: 2743181
Conc: 18.80 ug/ml



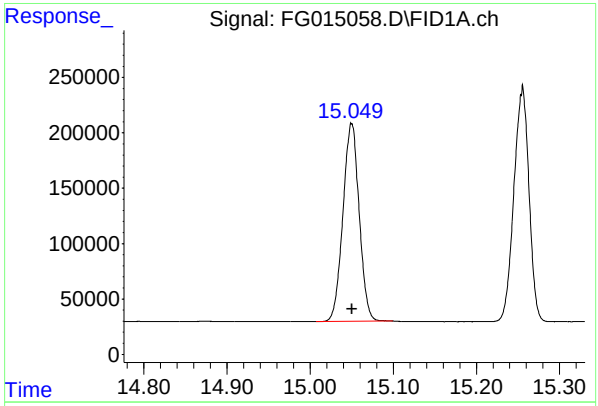
#7 N-EICOSANE

R.T.: 12.943 min
Delta R.T.: 0.000 min
Response: 2706469
Conc: 18.63 ug/ml



#8 N-DOCOSANE

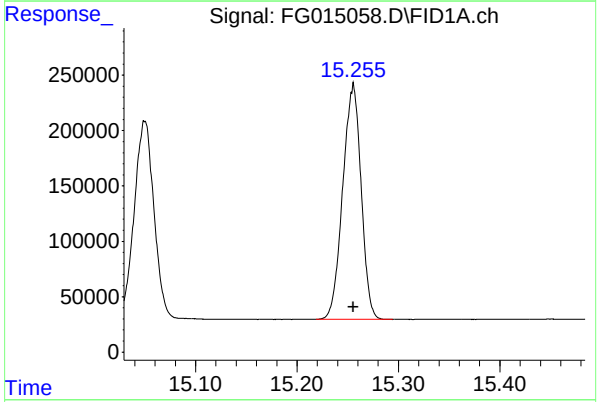
R.T.: 14.146 min
Delta R.T.: 0.000 min
Response: 2682390
Conc: 18.77 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

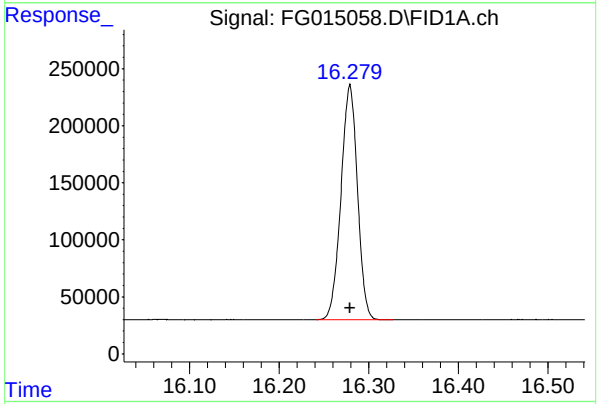
R.T.: 15.050 min
Delta R.T.: 0.000 min
Response: 2426477
Conc: 18.99 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



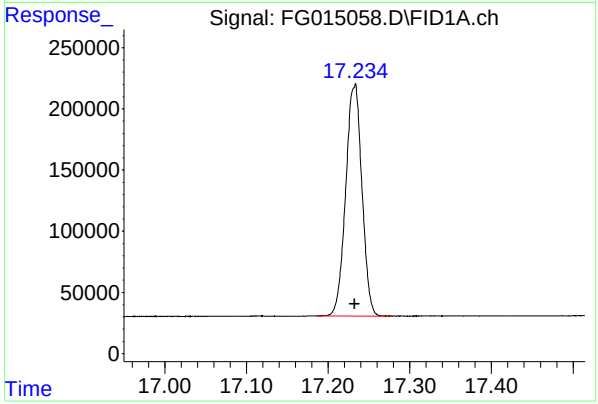
#10 N-TETRACOSANE

R.T.: 15.255 min
Delta R.T.: 0.000 min
Response: 2673287
Conc: 18.80 ug/ml



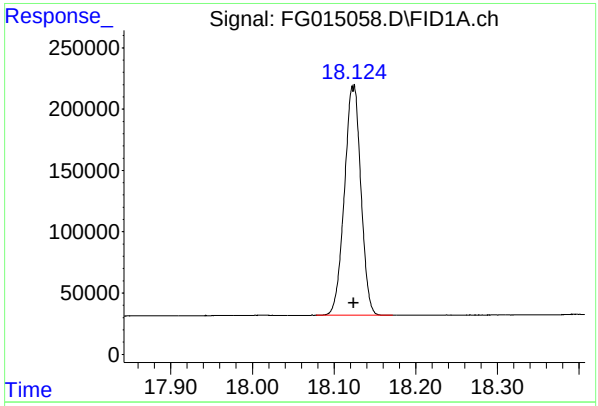
#11 N-HEXACOSANE

R.T.: 16.279 min
Delta R.T.: 0.000 min
Response: 2631421
Conc: 18.76 ug/ml



#12 N-OCTACOSANE

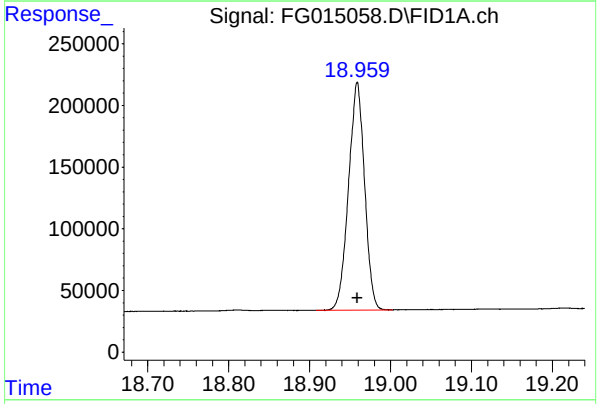
R.T.: 17.233 min
Delta R.T.: 0.000 min
Response: 2611804
Conc: 18.84 ug/ml



#13 N-TRIACONTANE

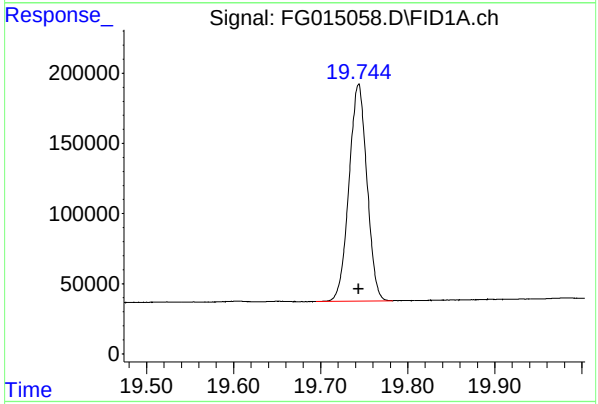
R.T.: 18.124 min
Delta R.T.: 0.000 min
Response: 2626561
Conc: 18.79 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



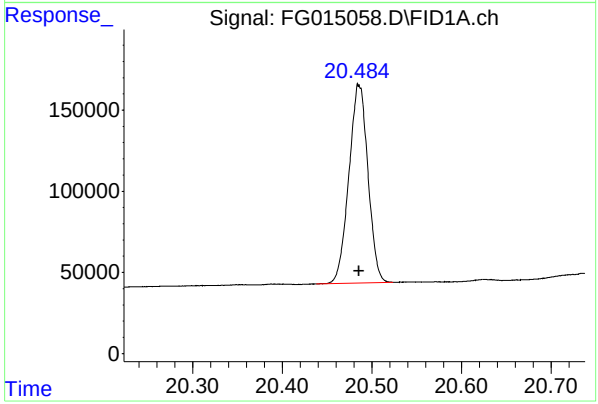
#14 N-DOTRIACONTANE

R.T.: 18.959 min
Delta R.T.: 0.000 min
Response: 2540319
Conc: 18.74 ug/ml



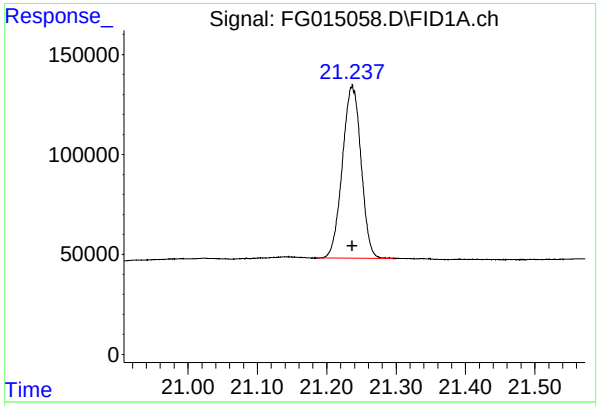
#15 N-TETRATRIACONTANE

R.T.: 19.744 min
Delta R.T.: 0.000 min
Response: 2210732
Conc: 18.06 ug/ml



#16 N-HEXATRIACONTANE

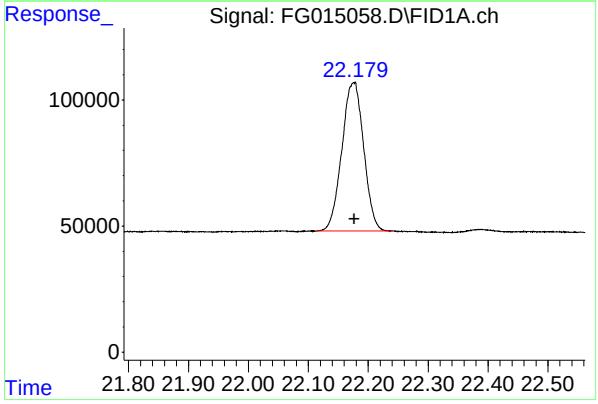
R.T.: 20.486 min
Delta R.T.: 0.000 min
Response: 1807283
Conc: 17.10 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.237 min
Delta R.T.: 0.000 min
Response: 1610414
Conc: 16.80 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.177 min
Delta R.T.: 0.000 min
Response: 1490070
Conc: 16.83 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015058.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:14
Sample : 20 TRPH STD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.011	1.980	2.067	BB	215225	2347743	85.58%	5.430%
2	4.546	4.515	4.585	BB	236430	2412466	87.94%	5.579%
3	6.726	6.694	6.760	BB	256457	2548018	92.89%	5.893%
4	8.563	8.532	8.602	BB	246160	2539205	92.56%	5.873%
5	10.178	10.138	10.215	BB	238478	2630204	95.88%	6.083%
6	11.627	11.590	11.668	BB	239392	2743181	100.00%	6.344%
7	12.943	12.905	12.985	BB	228456	2706469	98.66%	6.259%
8	14.146	14.110	14.185	BB	218194	2682390	97.78%	6.204%
9	15.050	15.007	15.100	BB	178429	2426477	88.45%	5.612%
10	15.255	15.219	15.295	BB	212834	2673287	97.45%	6.183%
11	16.279	16.241	16.327	BB	206089	2631421	95.93%	6.086%
12	17.233	17.185	17.280	BB	187624	2611804	95.21%	6.041%
13	18.124	18.078	18.172	BB	183768	2626561	95.75%	6.075%
14	18.959	18.908	19.003	BB	184506	2540319	92.60%	5.875%
15	19.744	19.695	19.783	BB	154500	2210732	80.59%	5.113%
16	20.486	20.438	20.524	BB	122070	1807283	65.88%	4.180%
17	21.237	21.185	21.295	BB	85965	1610414	58.71%	3.725%
18	22.177	22.113	22.241	BB	58558	1490070	54.32%	3.446%
			Sum of corrected areas:			43238043		

FG011325.M Mon Jan 13 12:12:37 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015059.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:42
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
10 TRPH STD

14
A
B
C
D
E
F

Integration File: autoint1.e
Quant Time: Jan 13 10:53:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 10:52:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
9) S	TETRACOSANE-d50 (SURR...	15.049	1319274	10.242 ug/ml
Target Compounds				
1)	N-OCTANE	2.012	1276191	10.466 ug/ml
2)	N-DECANE	4.545	1314669	10.121 ug/ml
3)	N-DODECANE	6.726	1389408	10.155 ug/ml
4)	N-TETRADECANE	8.563	1386903	10.086 ug/ml
5)	N-HEXADECANE	10.177	1437974	10.157 ug/ml
6)	N-OCTADECANE	11.627	1501248	10.215 ug/ml
7)	N-EICOSANE	12.942	1478786	10.132 ug/ml
8)	N-DOCOSANE	14.146	1466497	10.196 ug/ml
10)	N-TETRACOSANE	15.254	1461022	10.206 ug/ml
11)	N-HEXACOSANE	16.278	1440458	10.200 ug/ml
12)	N-OCTACOSANE	17.231	1437456	10.273 ug/ml
13)	N-TRIACONTANE	18.121	1459210	10.327 ug/ml
14)	N-DOTRIACONTANE	18.957	1433212	10.423 ug/ml
15)	N-TETRATRIACONTANE	19.741	1288019	10.388 ug/ml
16)	N-HEXATRIACONTANE	20.484	1102769	10.322 ug/ml
17)	N-OCTATRIACONTANE	21.236	1010014	10.398 ug/ml
18)	N-TETRACONTANE	22.175	952991	10.563 ug/ml

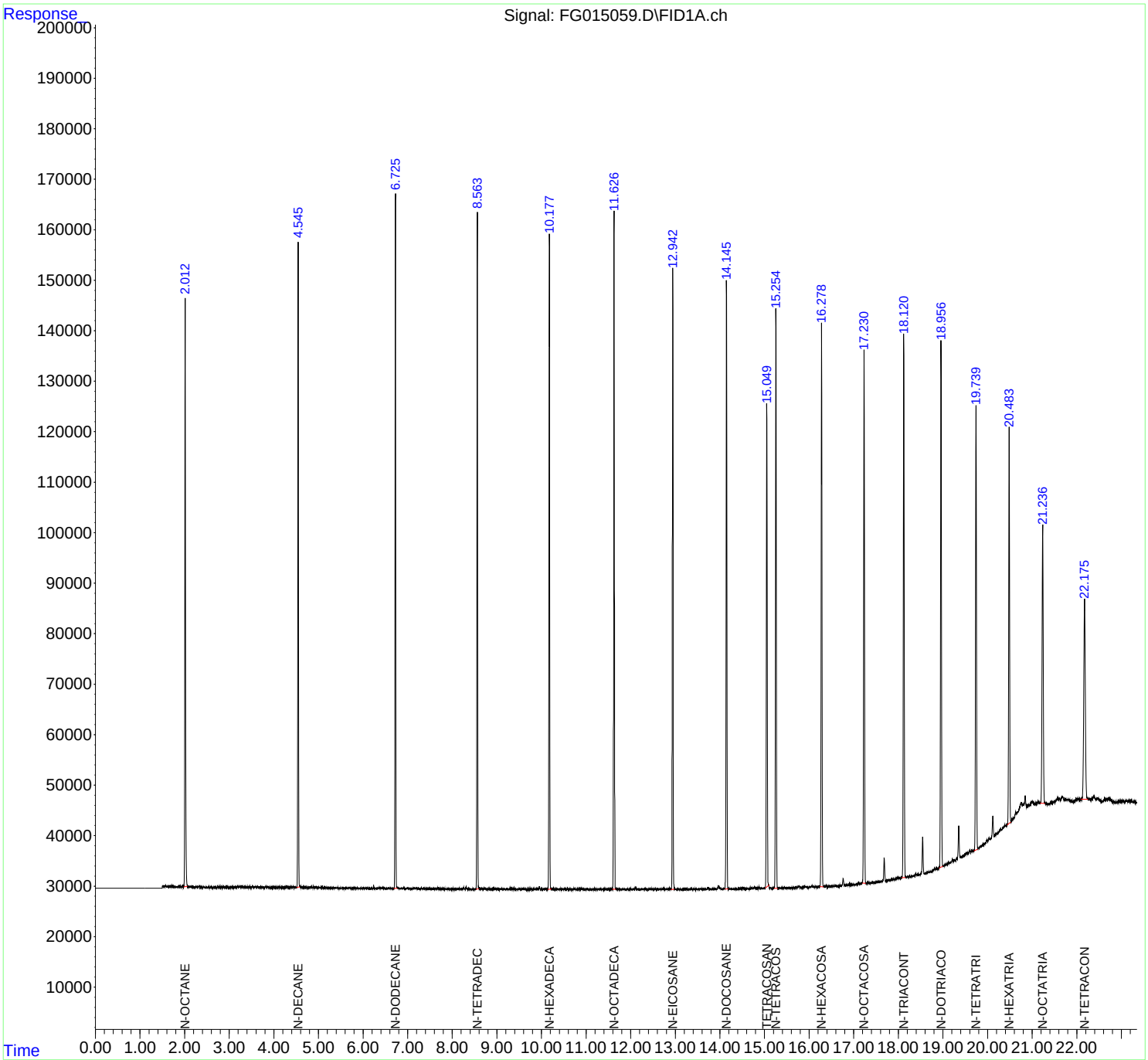
(f)=RT Delta > 1/2 Window (m)=manual int.

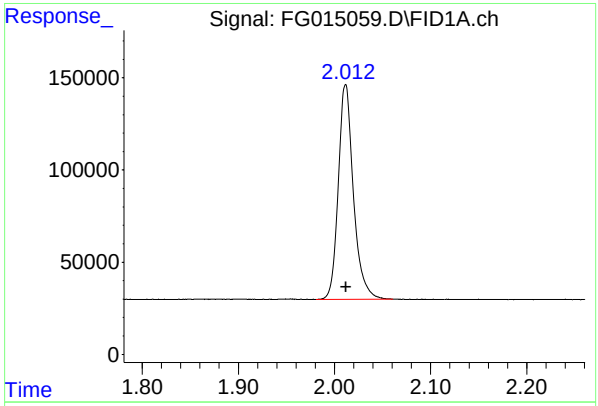
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015059.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:42
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 10:53:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 10:52:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

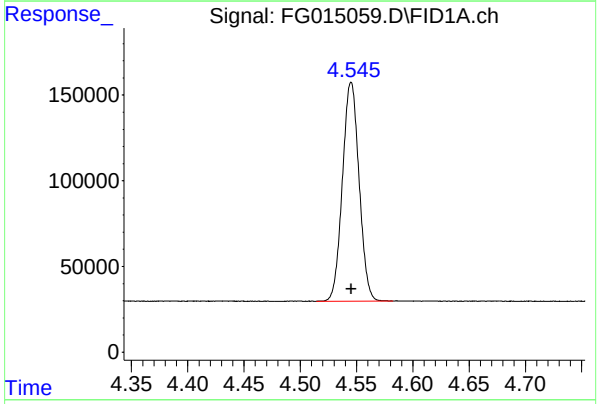




#1 N-OCTANE

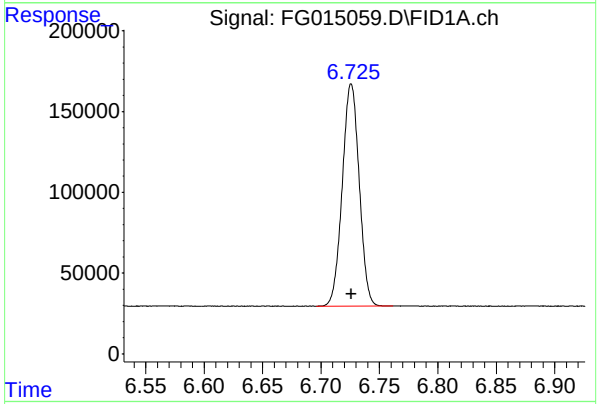
R.T.: 2.012 min
Delta R.T.: 0.000 min
Response: 1276191
Conc: 10.47 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



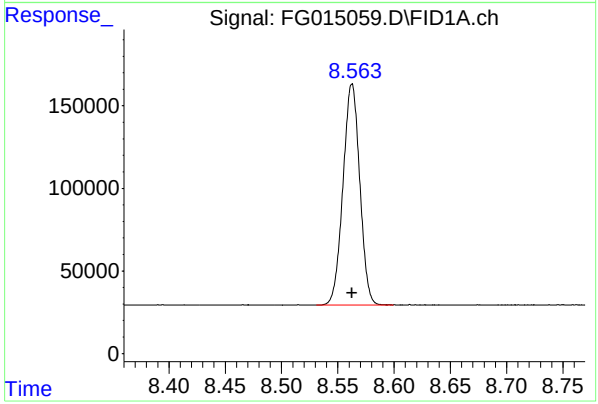
#2 N-DECANE

R.T.: 4.545 min
Delta R.T.: 0.000 min
Response: 1314669
Conc: 10.12 ug/ml



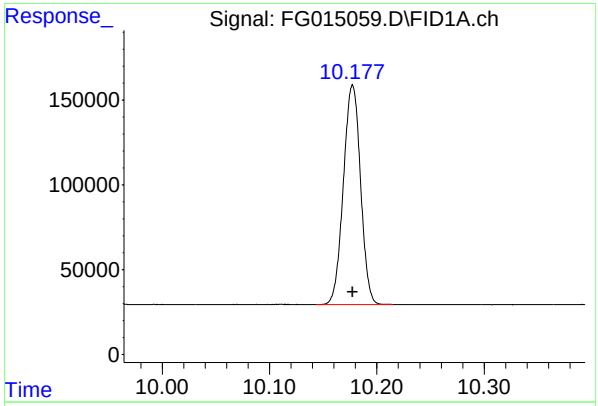
#3 N-DODECANE

R.T.: 6.726 min
Delta R.T.: 0.000 min
Response: 1389408
Conc: 10.16 ug/ml



#4 N-TETRADECANE

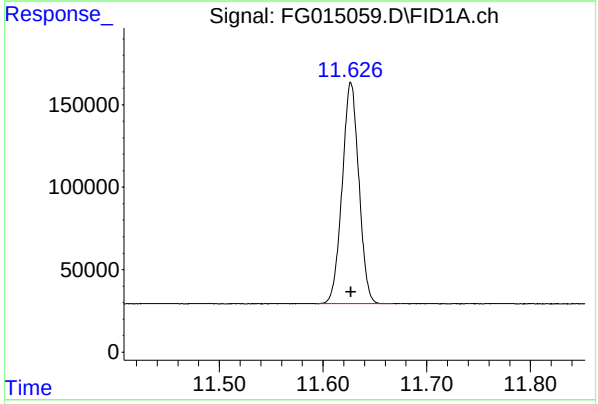
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 1386903
Conc: 10.09 ug/ml



#5 N-HEXADECANE

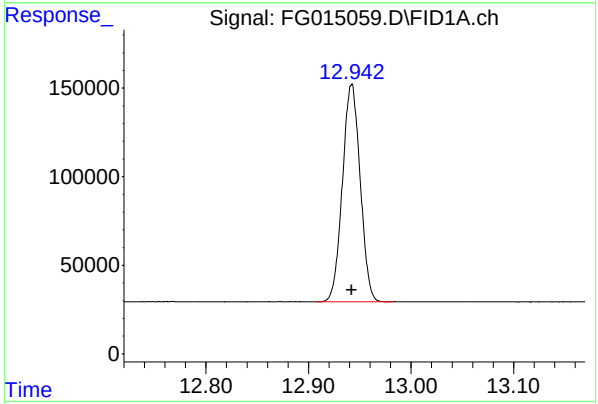
R.T.: 10.177 min
Delta R.T.: 0.000 min
Response: 1437974
Conc: 10.16 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



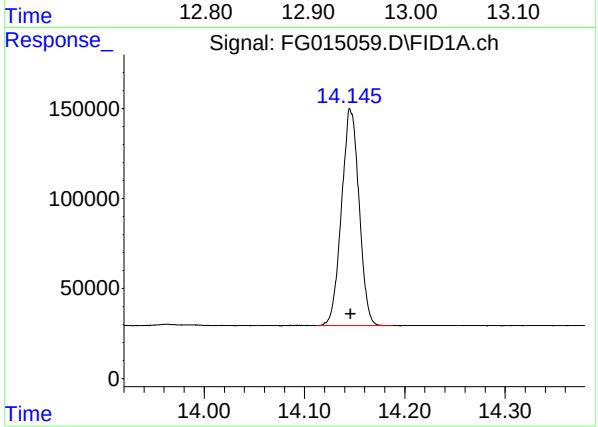
#6 N-OCTADECANE

R.T.: 11.627 min
Delta R.T.: 0.000 min
Response: 1501248
Conc: 10.21 ug/ml



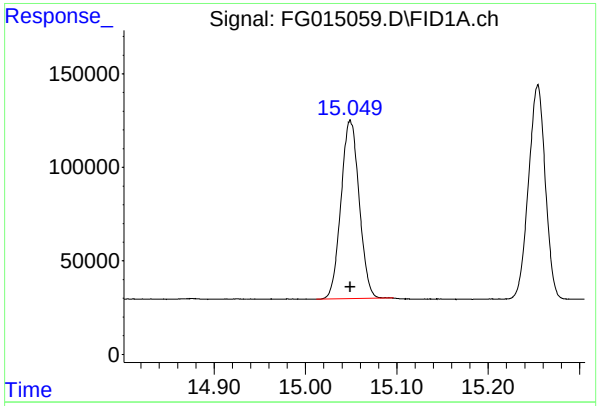
#7 N-EICOSANE

R.T.: 12.942 min
Delta R.T.: 0.000 min
Response: 1478786
Conc: 10.13 ug/ml



#8 N-DOCOSANE

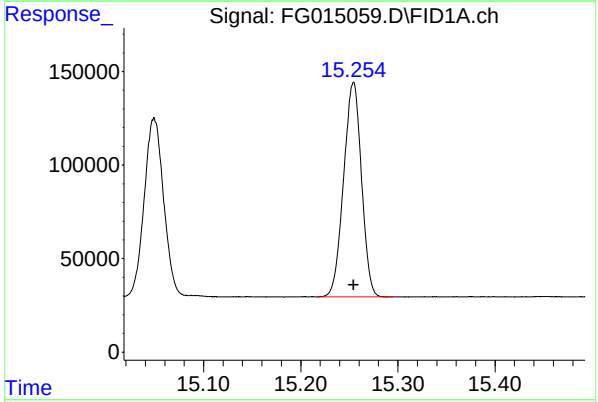
R.T.: 14.146 min
Delta R.T.: 0.000 min
Response: 1466497
Conc: 10.20 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

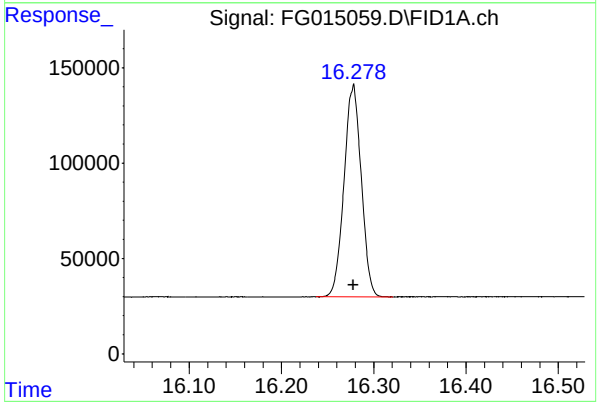
R.T.: 15.049 min
Delta R.T.: 0.000 min
Response: 1319274
Conc: 10.24 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



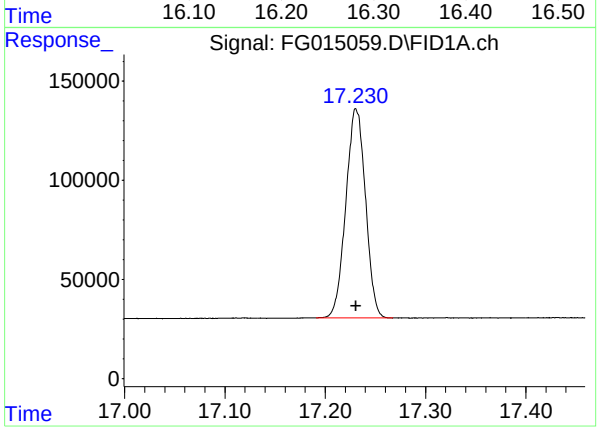
#10 N-TETRACOSANE

R.T.: 15.254 min
Delta R.T.: 0.000 min
Response: 1461022
Conc: 10.21 ug/ml



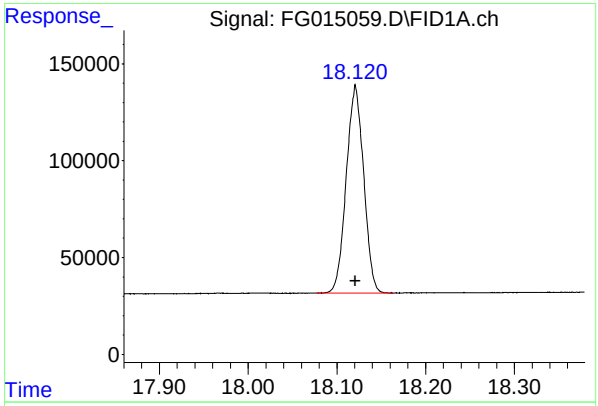
#11 N-HEXACOSANE

R.T.: 16.278 min
Delta R.T.: 0.000 min
Response: 1440458
Conc: 10.20 ug/ml



#12 N-OCTACOSANE

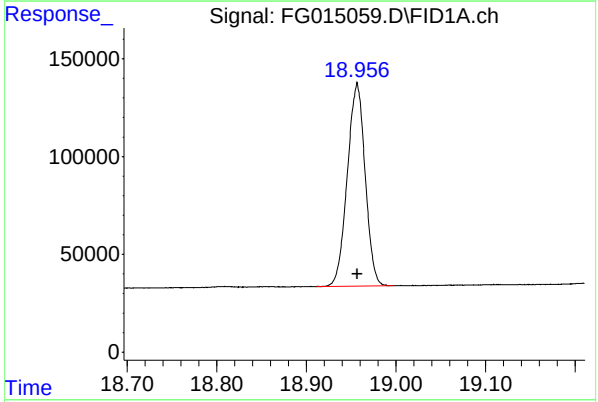
R.T.: 17.231 min
Delta R.T.: 0.000 min
Response: 1437456
Conc: 10.27 ug/ml



#13 N-TRIACONTANE

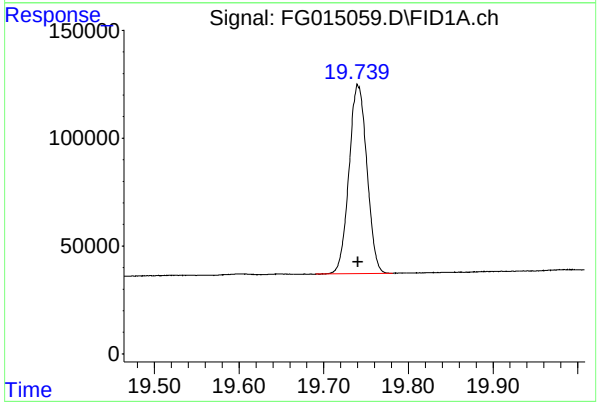
R.T.: 18.121 min
Delta R.T.: 0.000 min
Response: 1459210
Conc: 10.33 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



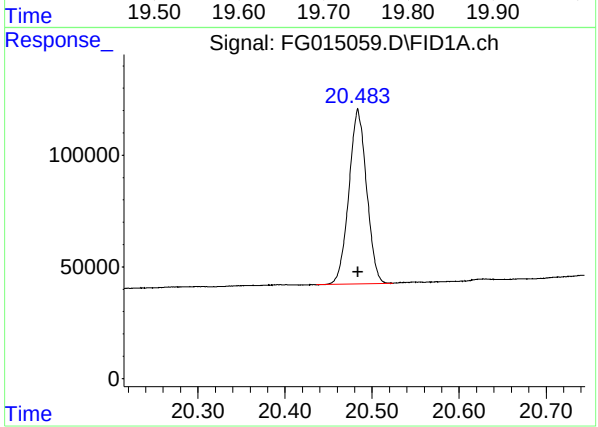
#14 N-DOTRIACONTANE

R.T.: 18.957 min
Delta R.T.: 0.000 min
Response: 1433212
Conc: 10.42 ug/ml



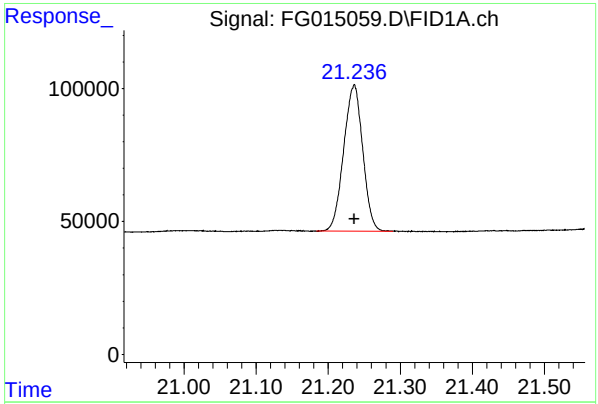
#15 N-TETRATRIACONTANE

R.T.: 19.741 min
Delta R.T.: 0.000 min
Response: 1288019
Conc: 10.39 ug/ml



#16 N-HEXATRIACONTANE

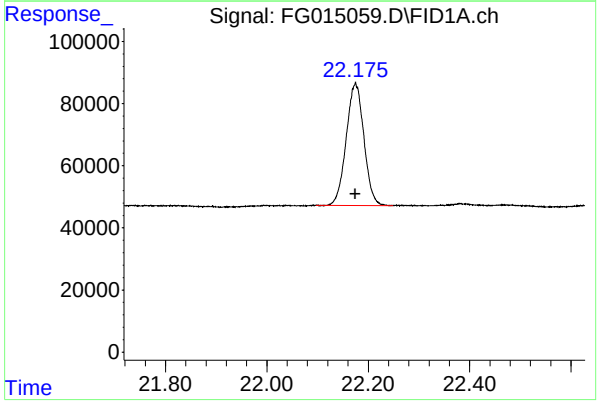
R.T.: 20.484 min
Delta R.T.: 0.000 min
Response: 1102769
Conc: 10.32 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.236 min
Delta R.T.: 0.000 min
Response: 1010014
Conc: 10.40 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.175 min
Delta R.T.: 0.000 min
Response: 952991
Conc: 10.56 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015059.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:42
Sample : 10 TRPH STD
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.012	1.981	2.061	BB	116551	1276191	85.01%	5.283%
2	4.545	4.514	4.583	BB	127760	1314669	87.57%	5.442%
3	6.726	6.696	6.762	BB	137599	1389408	92.55%	5.752%
4	8.563	8.531	8.599	BB	133691	1386903	92.38%	5.741%
5	10.177	10.143	10.215	BB	129522	1437974	95.79%	5.953%
6	11.627	11.593	11.668	BB	134180	1501248	100.00%	6.215%
7	12.942	12.908	12.983	BB	122931	1478786	98.50%	6.122%
8	14.146	14.112	14.188	BB	119620	1466497	97.69%	6.071%
9	15.049	15.012	15.096	BB	95604	1319274	87.88%	5.461%
10	15.254	15.216	15.295	BB	114527	1461022	97.32%	6.048%
11	16.278	16.238	16.321	BB	111744	1440458	95.95%	5.963%
12	17.231	17.191	17.268	BB	105493	1437456	95.75%	5.951%
13	18.121	18.077	18.163	BB	107178	1459210	97.20%	6.041%
14	18.957	18.911	18.997	BB	104074	1433212	95.47%	5.933%
15	19.741	19.691	19.782	BB	86857	1288019	85.80%	5.332%
16	20.484	20.436	20.524	BB	78199	1102769	73.46%	4.565%
17	21.236	21.183	21.290	BB	55242	1010014	67.28%	4.181%
18	22.175	22.097	22.249	BB	39719	952991	63.48%	3.945%
			Sum of corrected areas:			24156101		

FG011325.M Mon Jan 13 12:12:53 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015060.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:11
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 11:35:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 11:35:11 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
9) S	TETRACOSANE-d50 (SURR...	15.048	648631	5.029 ug/ml
Target Compounds				
1)	N-OCTANE	2.012	634654	5.162 ug/ml
2)	N-DECANE	4.546	654008	5.028 ug/ml
3)	N-DODECANE	6.726	692533	5.049 ug/ml
4)	N-TETRADECANE	8.563	693227	5.033 ug/ml
5)	N-HEXADECANE	10.177	716946	5.051 ug/ml
6)	N-OCTADECANE	11.627	747864	5.071 ug/ml
7)	N-EICOSANE	12.942	734881	5.028 ug/ml
8)	N-DOCOSANE	14.146	728625	5.053 ug/ml
10)	N-TETRACOSANE	15.254	725335	5.053 ug/ml
11)	N-HEXACOSANE	16.277	714017	5.045 ug/ml
12)	N-OCTACOSANE	17.231	719588	5.113 ug/ml
13)	N-TRIACONTANE	18.121	746793	5.225 ug/ml
14)	N-DOTRIACONTANE	18.956	739109	5.296 ug/ml
15)	N-TETRATRIACONTANE	19.742	661594	5.265 ug/ml
16)	N-HEXATRIACONTANE	20.483	565434	5.231 ug/ml
17)	N-OCTATRIACONTANE	21.234	509611	5.195 ug/ml
18)	N-TETRACONTANE	22.172	475271	5.212 ug/ml

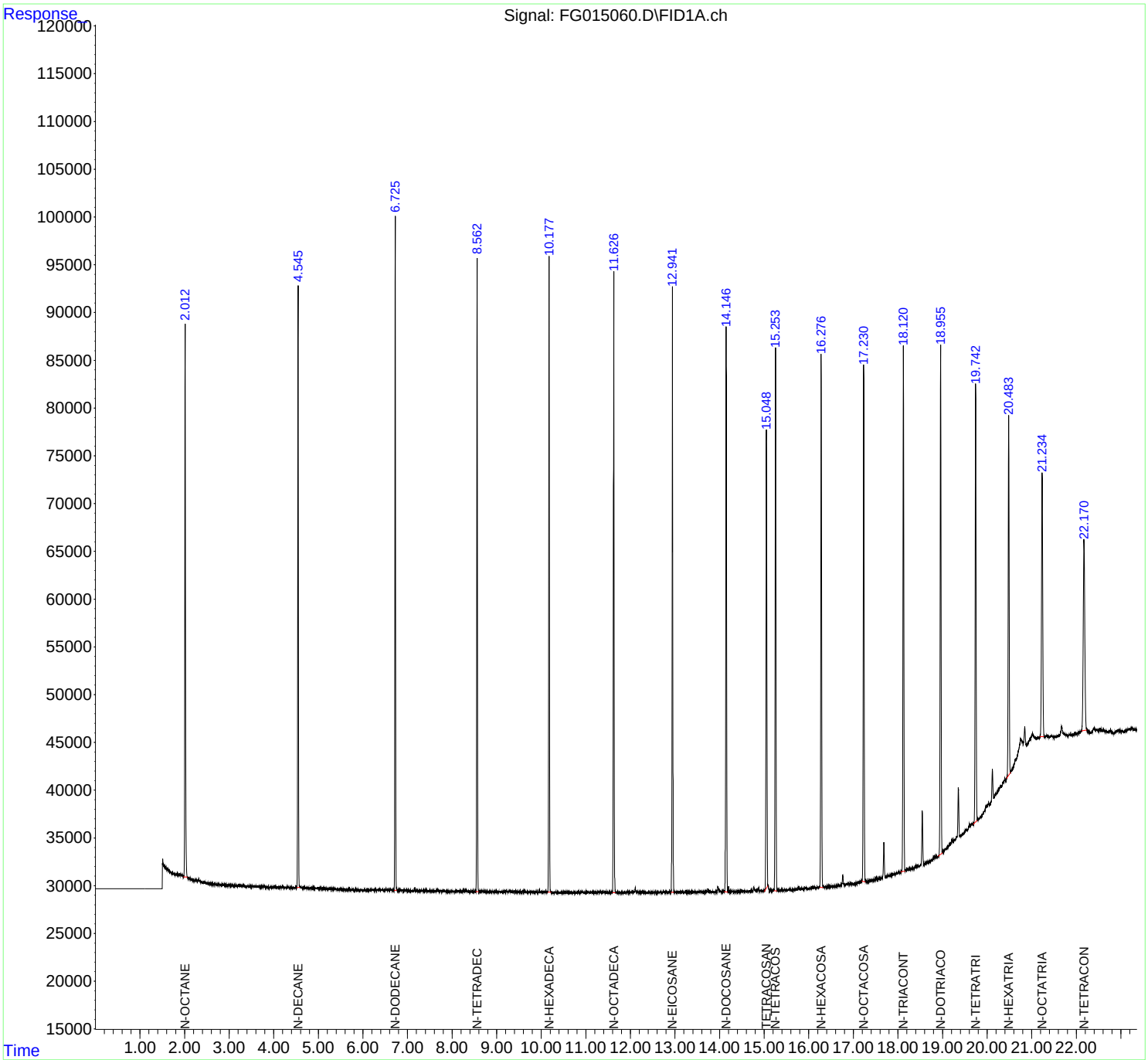
(f)=RT Delta > 1/2 Window (m)=manual int.

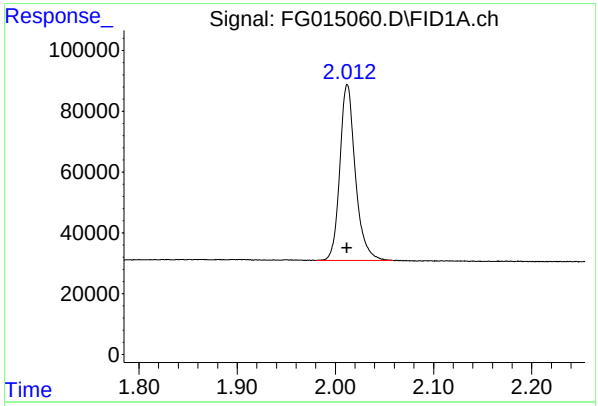
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015060.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:11
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 11:35:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 11:35:11 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

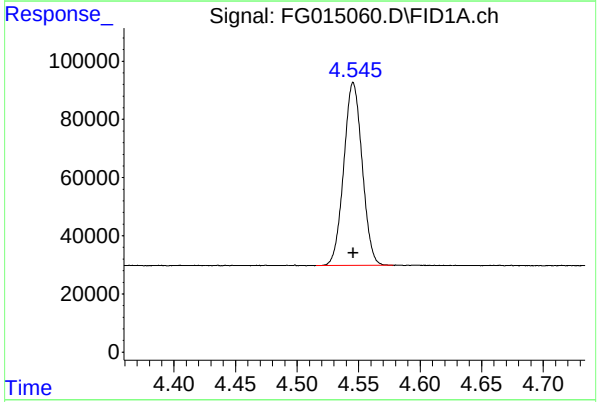




#1 N-OCTANE

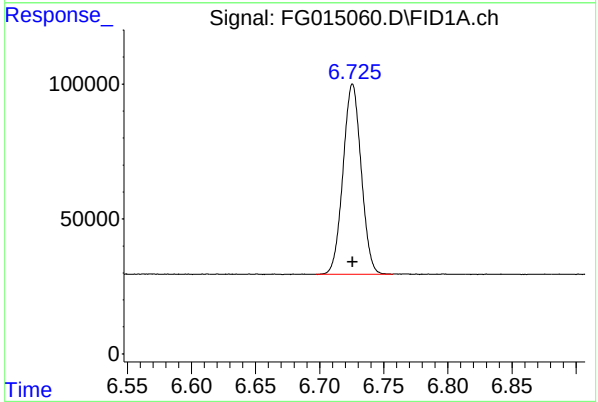
R.T.: 2.012 min
Delta R.T.: 0.000 min
Response: 634654
Conc: 5.16 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



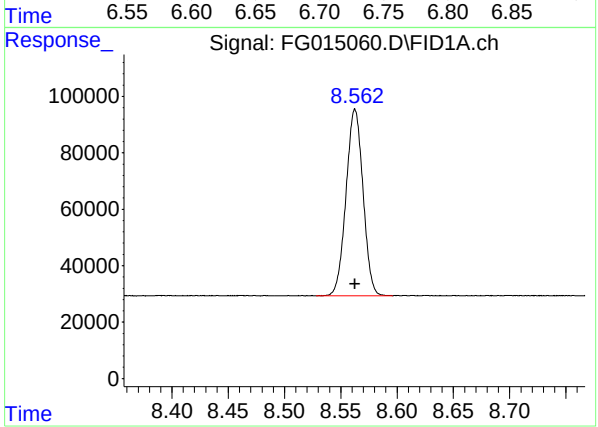
#2 N-DECANE

R.T.: 4.546 min
Delta R.T.: 0.000 min
Response: 654008
Conc: 5.03 ug/ml



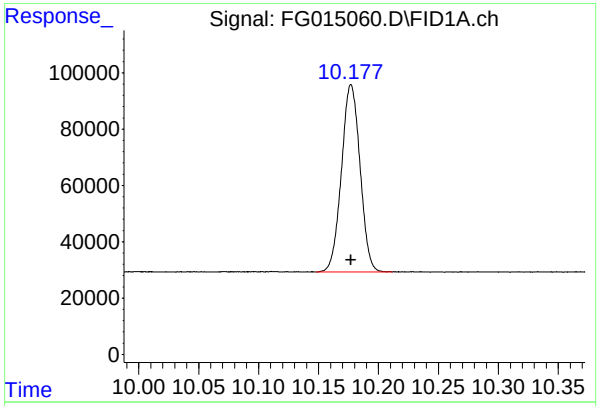
#3 N-DODECANE

R.T.: 6.726 min
Delta R.T.: 0.000 min
Response: 692533
Conc: 5.05 ug/ml



#4 N-TETRADECANE

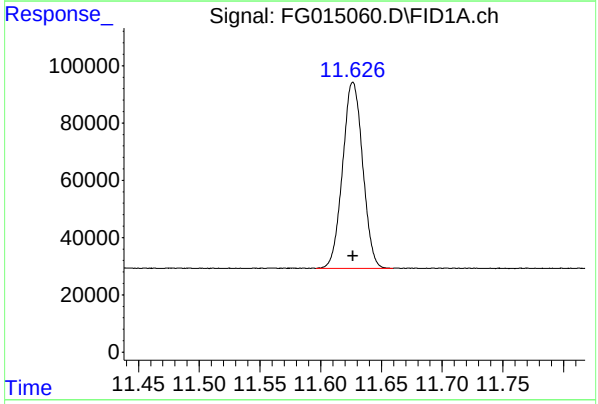
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 693227
Conc: 5.03 ug/ml



#5 N-HEXADECANE

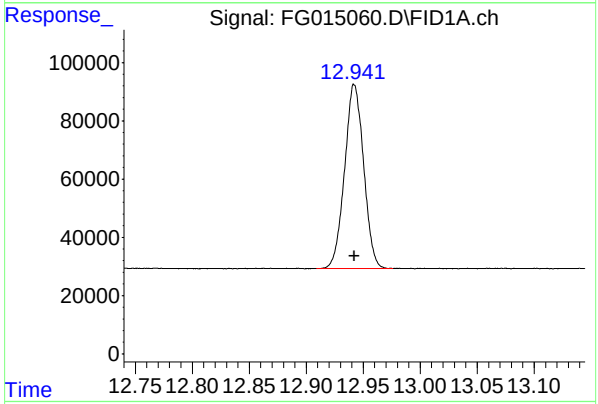
R.T.: 10.177 min
Delta R.T.: 0.000 min
Response: 716946
Conc: 5.05 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



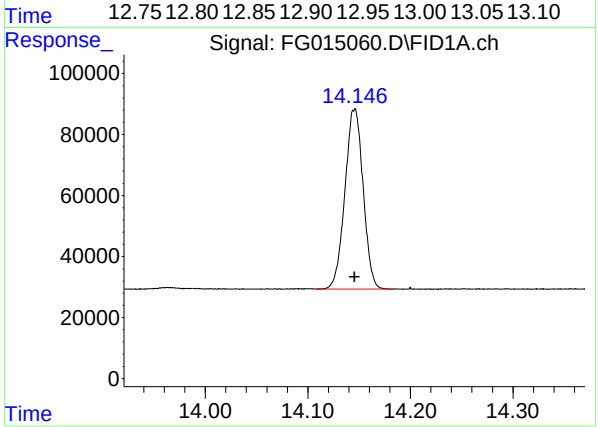
#6 N-OCTADECANE

R.T.: 11.627 min
Delta R.T.: 0.000 min
Response: 747864
Conc: 5.07 ug/ml



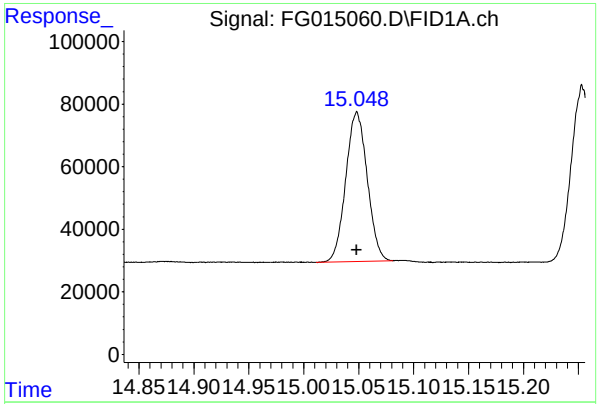
#7 N-EICOSANE

R.T.: 12.942 min
Delta R.T.: 0.000 min
Response: 734881
Conc: 5.03 ug/ml



#8 N-DOCOSANE

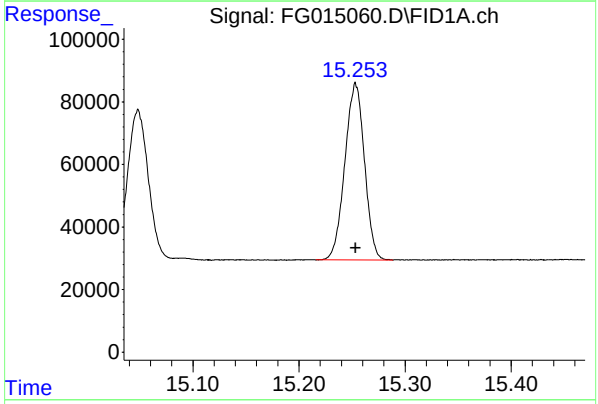
R.T.: 14.146 min
Delta R.T.: 0.000 min
Response: 728625
Conc: 5.05 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

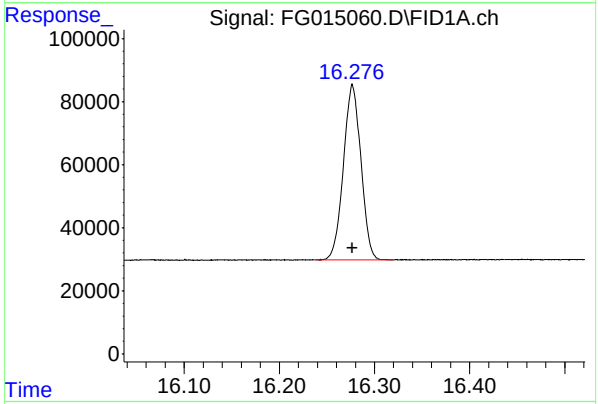
R.T.: 15.048 min
Delta R.T.: 0.000 min
Response: 648631
Conc: 5.03 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



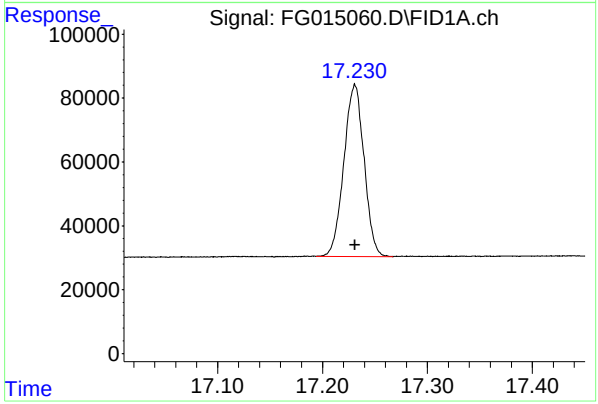
#10 N-TETRACOSANE

R.T.: 15.254 min
Delta R.T.: 0.000 min
Response: 725335
Conc: 5.05 ug/ml



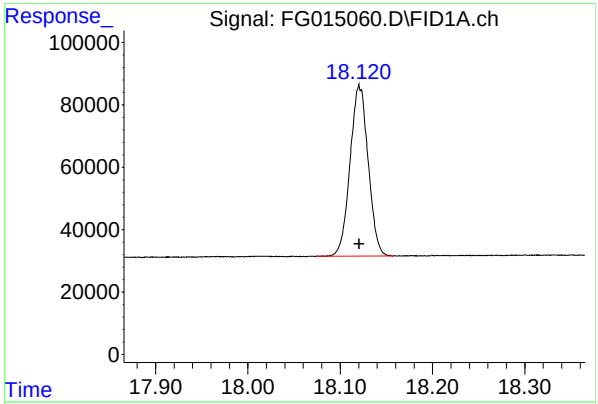
#11 N-HEXACOSANE

R.T.: 16.277 min
Delta R.T.: 0.000 min
Response: 714017
Conc: 5.04 ug/ml



#12 N-OCTACOSANE

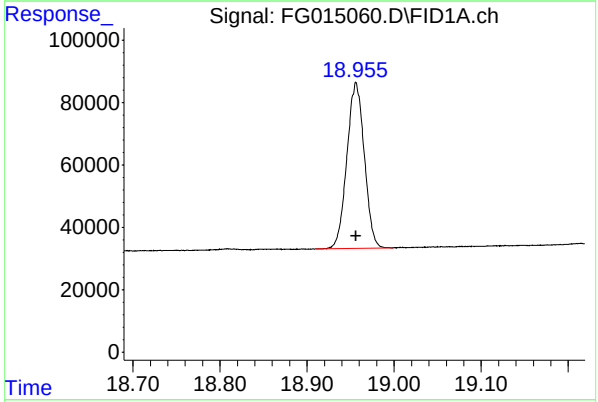
R.T.: 17.231 min
Delta R.T.: 0.000 min
Response: 719588
Conc: 5.11 ug/ml



#13 N-TRIACONTANE

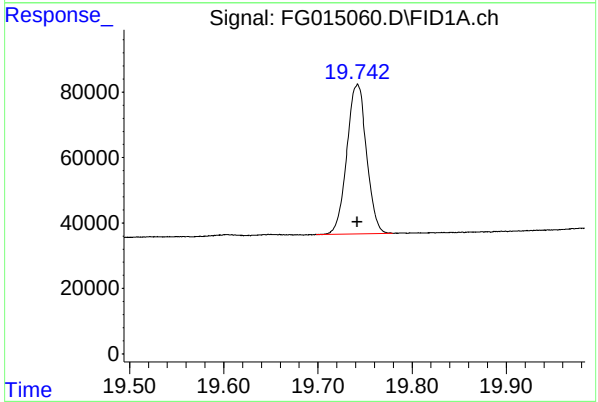
R.T.: 18.121 min
Delta R.T.: 0.000 min
Response: 746793
Conc: 5.23 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



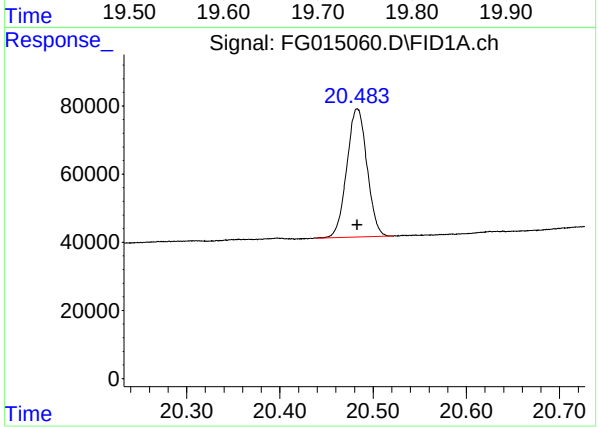
#14 N-DOTRIACONTANE

R.T.: 18.956 min
Delta R.T.: 0.000 min
Response: 739109
Conc: 5.30 ug/ml



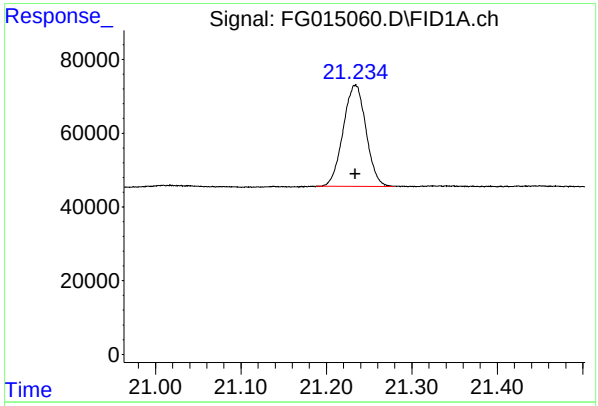
#15 N-TETRATRIACONTANE

R.T.: 19.742 min
Delta R.T.: 0.000 min
Response: 661594
Conc: 5.27 ug/ml



#16 N-HEXATRIACONTANE

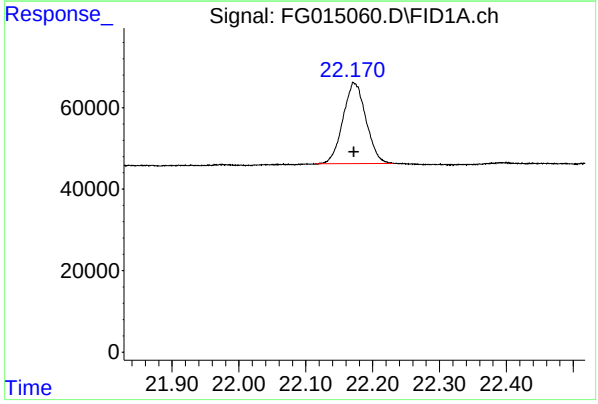
R.T.: 20.483 min
Delta R.T.: 0.000 min
Response: 565434
Conc: 5.23 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.234 min
Delta R.T.: 0.000 min
Response: 509611
Conc: 5.20 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.172 min
Delta R.T.: 0.000 min
Response: 475271
Conc: 5.21 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015060.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:11
Sample : 5 TRPH STD
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.012	1.980	2.059	BB	57857	634654	84.86%	5.242%
2	4.546	4.515	4.578	BB	62980	654008	87.45%	5.401%
3	6.726	6.697	6.757	BB	70587	692533	92.60%	5.720%
4	8.563	8.528	8.596	BB	66151	693227	92.69%	5.725%
5	10.177	10.148	10.212	BB	66556	716946	95.87%	5.921%
6	11.627	11.596	11.660	BB	64945	747864	100.00%	6.177%
7	12.942	12.909	12.976	BB	63072	734881	98.26%	6.069%
8	14.146	14.108	14.183	BB	58745	728625	97.43%	6.018%
9	15.048	15.011	15.081	BB	47823	648631	86.73%	5.357%
10	15.254	15.216	15.289	BB	56152	725335	96.99%	5.990%
11	16.277	16.239	16.320	BB	55490	714017	95.47%	5.897%
12	17.231	17.194	17.267	BB	53743	719588	96.22%	5.943%
13	18.121	18.074	18.157	BB	54311	746793	99.86%	6.168%
14	18.956	18.910	18.999	BB	53232	739109	98.83%	6.104%
15	19.742	19.698	19.780	BB	45796	661594	88.46%	5.464%
16	20.483	20.439	20.521	BB	37634	565434	75.61%	4.670%
17	21.234	21.188	21.278	BB	27412	509611	68.14%	4.209%
18	22.172	22.115	22.230	BB	19853	475271	63.55%	3.925%
			Sum of corrected areas:			12108119		

FG011325.M Mon Jan 13 12:13:09 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015061.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:39
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 11:50:54 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 11:50:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
9) S	TETRACOSANE-d50 (SURR...	15.056	11798567	91.980 ug/ml
Target Compounds				
1)	N-OCTANE	2.010	11457523	93.897 ug/ml
2)	N-DECANE	4.549	11755056	91.003 ug/ml
3)	N-DODECANE	6.732	12400369	91.021 ug/ml
4)	N-TETRADECANE	8.569	12323693	90.042 ug/ml
5)	N-HEXADECANE	10.184	12738160	90.270 ug/ml
6)	N-OCTADECANE	11.635	13302325	90.685 ug/ml
7)	N-EICOSANE	12.951	13120855	90.248 ug/ml
8)	N-DOCOSANE	14.155	13017284	90.736 ug/ml
10)	N-TETRACOSANE	15.263	12974293	90.840 ug/ml
11)	N-HEXACOSANE	16.288	12736383	90.432 ug/ml
12)	N-OCTACOSANE	17.241	12438625	88.827 ug/ml
13)	N-TRIACONTANE	18.132	12179850	85.611 ug/ml
14)	N-DOTRIACONTANE	18.966	11733502	84.423 ug/ml
15)	N-TETRATRIACONTANE	19.752	10691422	85.329 ug/ml
16)	N-HEXATRIACONTANE	20.492	9388301	86.879 ug/ml
17)	N-OCTATRIACONTANE	21.244	8808855	89.303 ug/ml
18)	N-TETRACONTANE	22.185	8630372	92.952 ug/ml

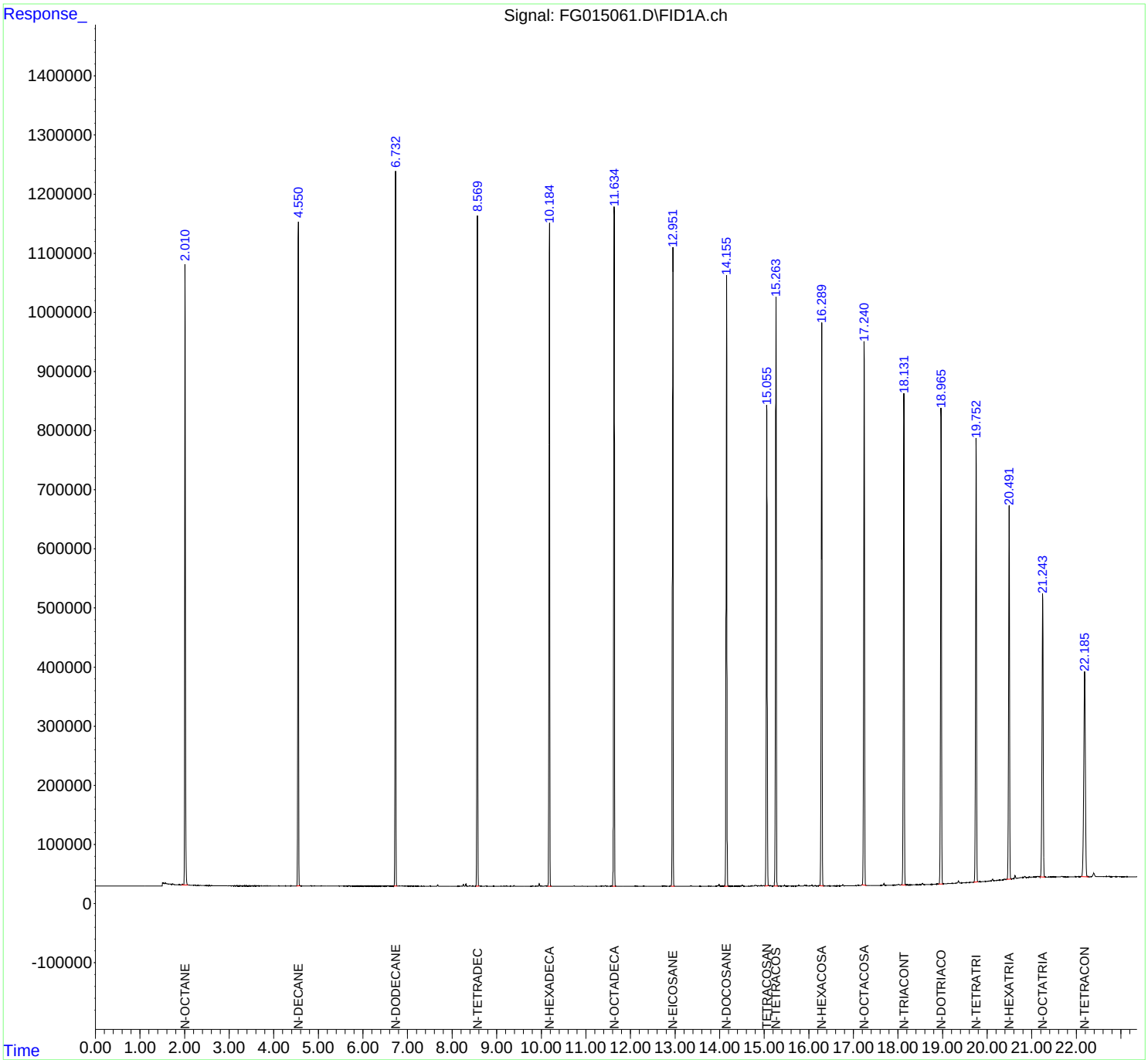
(f)=RT Delta > 1/2 Window (m)=manual int.

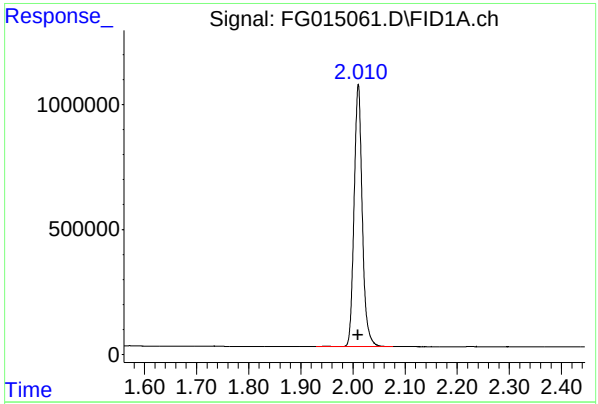
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015061.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:39
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 13 11:50:54 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 11:50:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

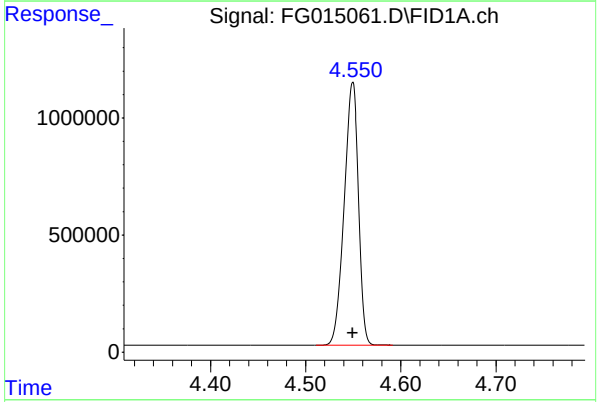




#1 N-OCTANE

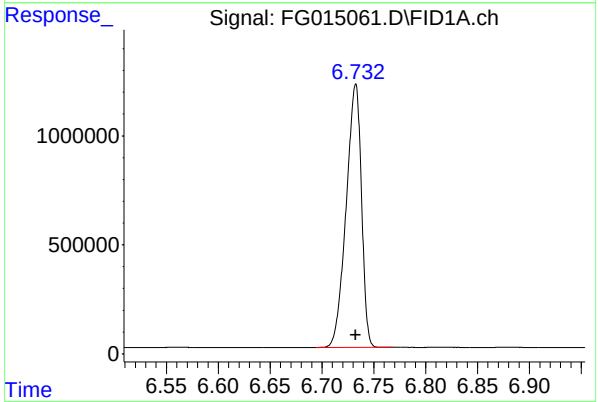
R.T.: 2.010 min
Delta R.T.: 0.000 min
Response: 11457523
Conc: 93.90 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



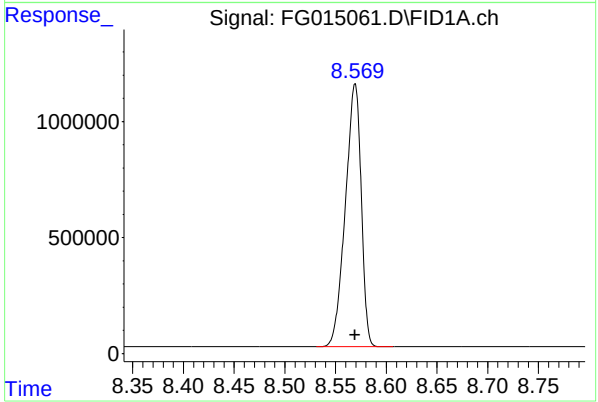
#2 N-DECANE

R.T.: 4.549 min
Delta R.T.: 0.000 min
Response: 11755056
Conc: 91.00 ug/ml



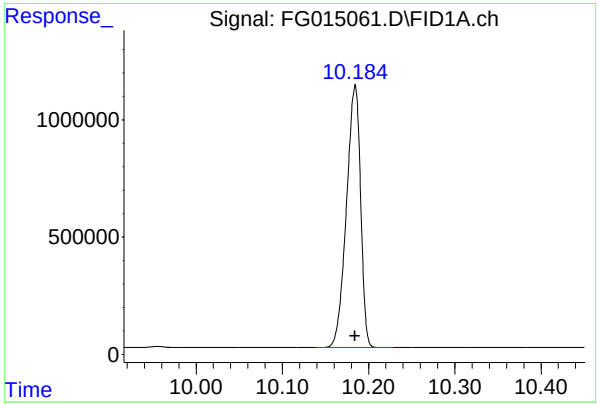
#3 N-DODECANE

R.T.: 6.732 min
Delta R.T.: 0.000 min
Response: 12400369
Conc: 91.02 ug/ml



#4 N-TETRADECANE

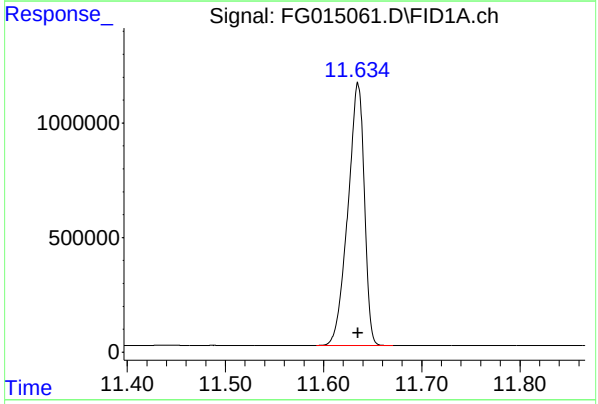
R.T.: 8.569 min
Delta R.T.: 0.000 min
Response: 12323693
Conc: 90.04 ug/ml



#5 N-HEXADECANE

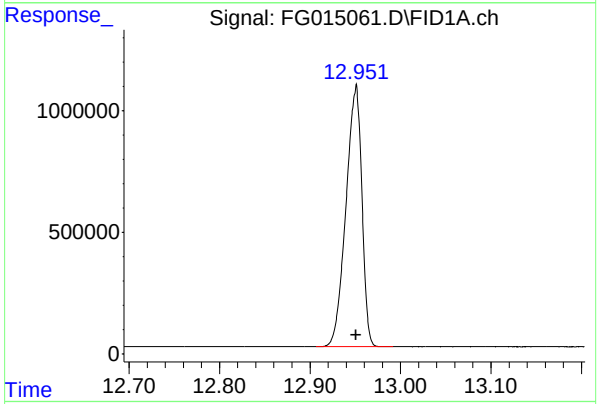
R.T.: 10.184 min
Delta R.T.: 0.000 min
Response: 12738160
Conc: 90.27 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



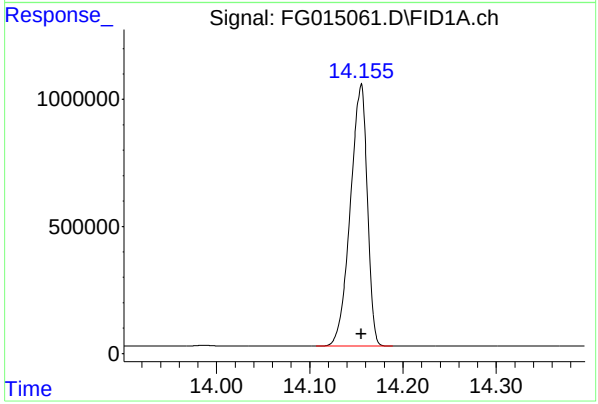
#6 N-OCTADECANE

R.T.: 11.635 min
Delta R.T.: 0.000 min
Response: 13302325
Conc: 90.68 ug/ml



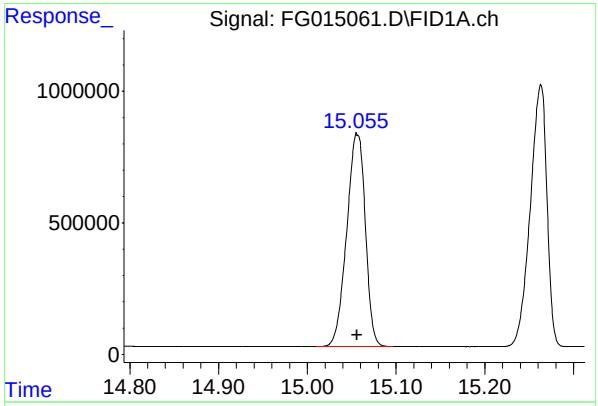
#7 N-EICOSANE

R.T.: 12.951 min
Delta R.T.: 0.000 min
Response: 13120855
Conc: 90.25 ug/ml



#8 N-DOCOSANE

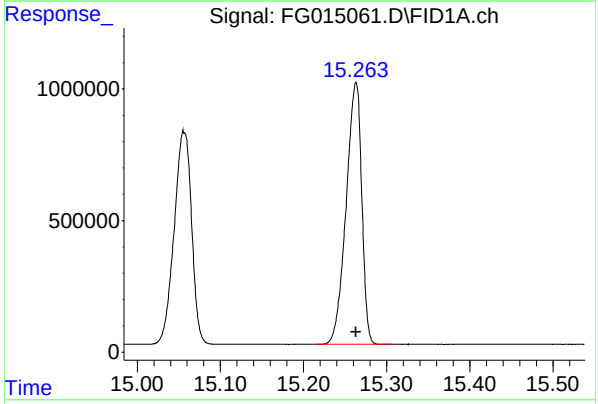
R.T.: 14.155 min
Delta R.T.: 0.000 min
Response: 13017284
Conc: 90.74 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

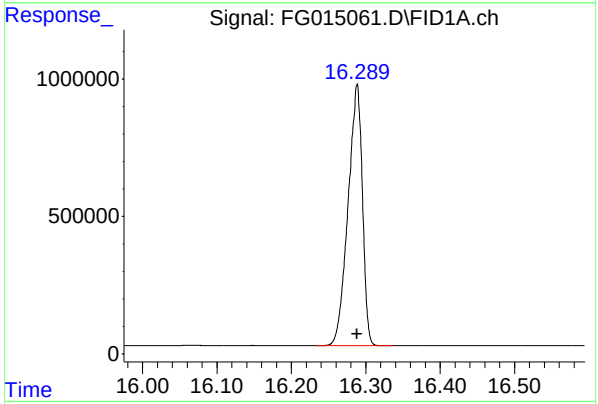
R.T.: 15.056 min
Delta R.T.: 0.000 min
Response: 11798567
Conc: 91.98 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



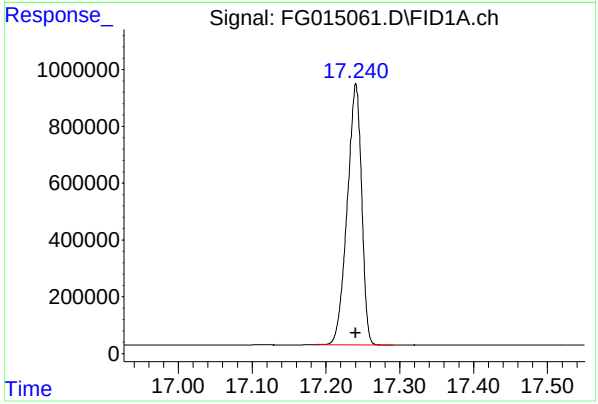
#10 N-TETRACOSANE

R.T.: 15.263 min
Delta R.T.: 0.000 min
Response: 12974293
Conc: 90.84 ug/ml



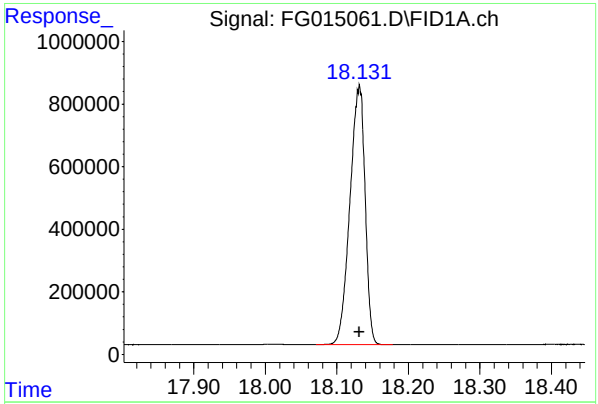
#11 N-HEXACOSANE

R.T.: 16.288 min
Delta R.T.: 0.000 min
Response: 12736383
Conc: 90.43 ug/ml



#12 N-OCTACOSANE

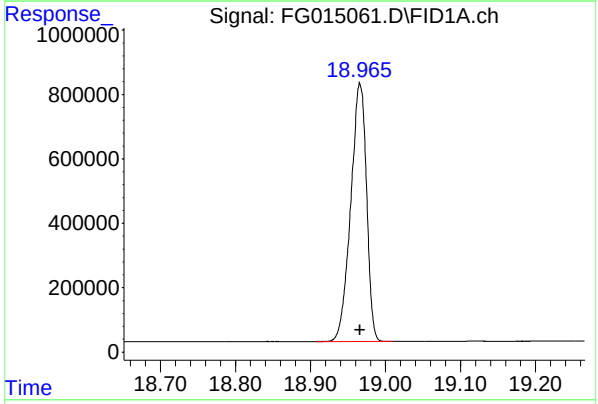
R.T.: 17.241 min
Delta R.T.: 0.000 min
Response: 12438625
Conc: 88.83 ug/ml



#13 N-TRIACONTANE

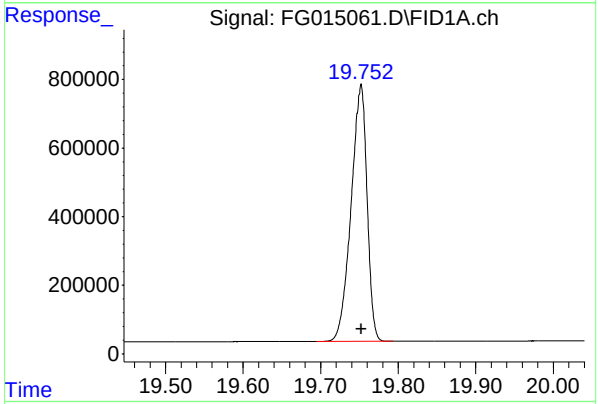
R.T.: 18.132 min
Delta R.T.: 0.000 min
Response: 12179850
Conc: 85.61 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



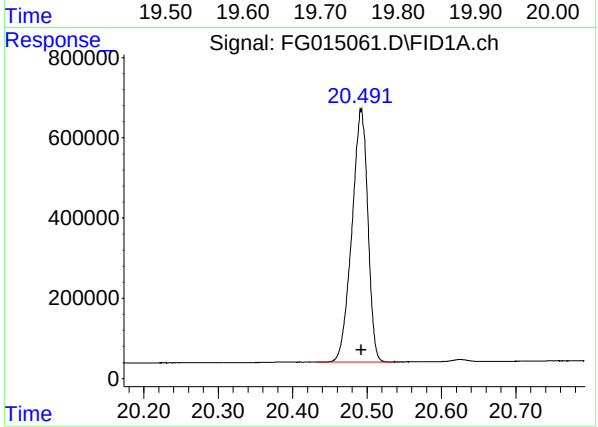
#14 N-DOTRIACONTANE

R.T.: 18.966 min
Delta R.T.: 0.000 min
Response: 11733502
Conc: 84.42 ug/ml



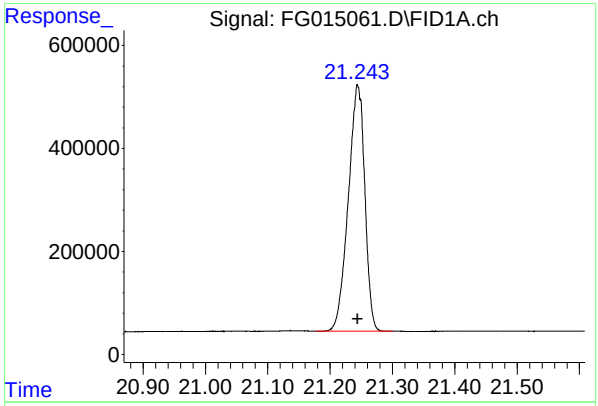
#15 N-TETRATRIACONTANE

R.T.: 19.752 min
Delta R.T.: 0.000 min
Response: 10691422
Conc: 85.33 ug/ml



#16 N-HEXATRIACONTANE

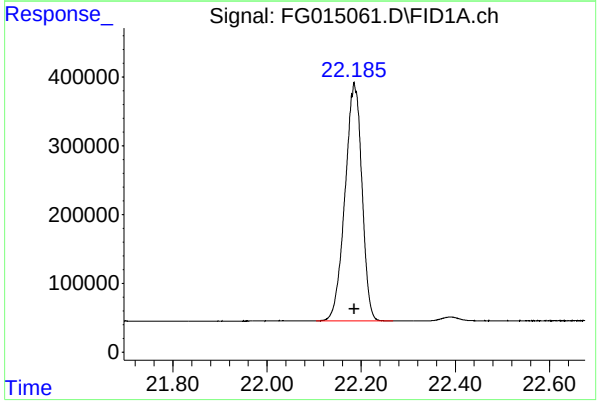
R.T.: 20.492 min
Delta R.T.: 0.000 min
Response: 9388301
Conc: 86.88 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.244 min
Delta R.T.: 0.000 min
Response: 8808855
Conc: 89.30 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.185 min
Delta R.T.: 0.000 min
Response: 8630372
Conc: 92.95 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015061.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:39
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.010	1.929	2.077	BB	1049435	11457523	86.13%	5.417%
2	4.549	4.511	4.592	BB	1122240	11755056	88.37%	5.558%
3	6.732	6.694	6.768	BB	1209156	12400369	93.22%	5.863%
4	8.569	8.531	8.607	BB	1133983	12323693	92.64%	5.827%
5	10.184	10.139	10.228	BB	1119738	12738160	95.76%	6.023%
6	11.635	11.593	11.671	BB	1145301	13302325	100.00%	6.290%
7	12.951	12.907	12.992	BB	1071561	13120855	98.64%	6.204%
8	14.155	14.107	14.189	BB	1028232	13017284	97.86%	6.155%
9	15.056	15.010	15.097	BB	804535	11798567	88.70%	5.579%
10	15.263	15.215	15.308	BB	995883	12974293	97.53%	6.135%
11	16.288	16.233	16.337	BB	948498	12736383	95.75%	6.022%
12	17.241	17.187	17.291	BB	919608	12438625	93.51%	5.881%
13	18.132	18.071	18.178	BB	831169	12179850	91.56%	5.759%
14	18.966	18.908	19.010	BB	801625	11733502	88.21%	5.548%
15	19.752	19.694	19.793	BB	751020	10691422	80.37%	5.055%
16	20.492	20.432	20.535	BB	626090	9388301	70.58%	4.439%
17	21.244	21.178	21.301	BB	477507	8808855	66.22%	4.165%
18	22.185	22.104	22.268	BB	346761	8630372	64.88%	4.081%

Sum of corrected areas: 211495435

FG011325.M Mon Jan 13 12:13:24 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015062.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 12:07
Operator : YP\AJ
Sample : FG011325ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
FG011325ICV

Integration File: autoint1.e
Quant Time: Jan 13 12:58:50 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 11:52:01 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.054	6435456	50.170 ug/ml
	Target Compounds			
1)	N-OCTANE	2.011	5689865	46.630 ug/ml
2)	N-DECANE	4.547	6668871	51.628 ug/ml
3)	N-DODECANE	6.729	6965368	51.127 ug/ml
4)	N-TETRADECANE	8.566	7162213	52.330 ug/ml
5)	N-HEXADECANE	10.181	7292547	51.679 ug/ml
6)	N-OCTADECANE	11.631	7485788	51.032 ug/ml
7)	N-EICOSANE	12.948	7583215	52.159 ug/ml
8)	N-DOCOSANE	14.150	7362758	51.322 ug/ml
10)	N-TETRACOSANE	15.259	7320313	51.254 ug/ml
11)	N-HEXACOSANE	16.283	7276923	51.668 ug/ml
12)	N-OCTACOSANE	17.236	7251213	51.782 ug/ml
13)	N-TRIACONTANE	18.127	7526376	52.902 ug/ml
14)	N-DOTRIACONTANE	18.962	7422331	53.404 ug/ml
15)	N-TETRATRIACONTANE	19.748	6986454	55.759 ug/ml
16)	N-HEXATRIACONTANE	20.491	6347544	58.740 ug/ml
17)	N-OCTATRIACONTANE	21.240	5886866	59.680 ug/ml
18)	N-TETRACONTANE	22.182	5565107	59.938 ug/ml

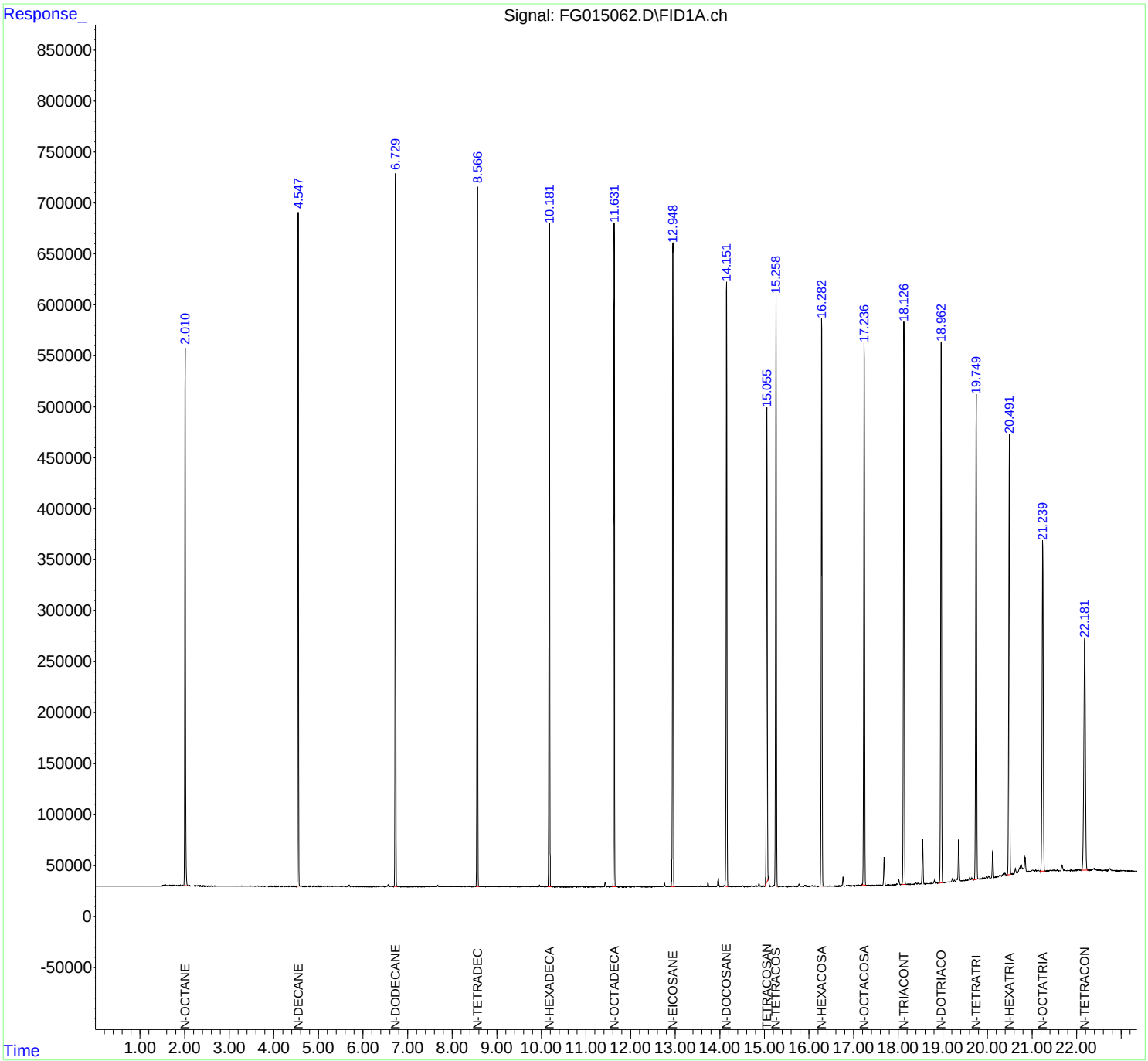
(f)=RT Delta > 1/2 Window (m)=manual int.

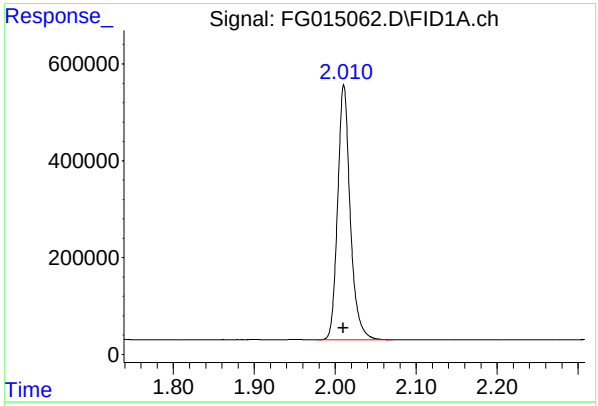
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015062.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 12:07
Operator : YP\AJ
Sample : FG011325ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
FG011325ICV

Integration File: autoint1.e
Quant Time: Jan 13 12:58:50 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Quant Title :
QLast Update : Mon Jan 13 11:52:01 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

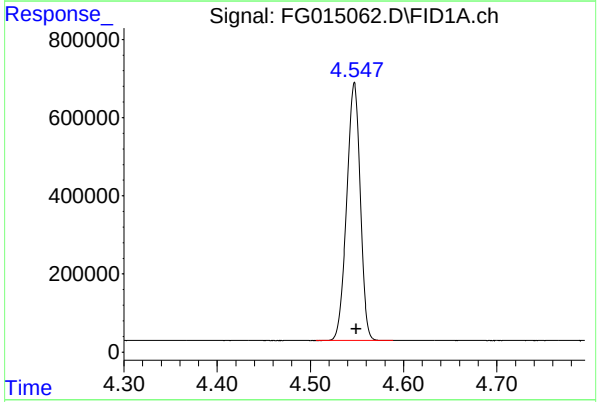




#1 N-OCTANE

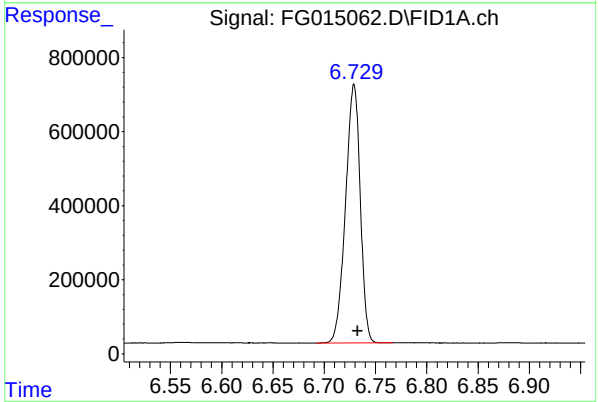
R.T.: 2.011 min
Delta R.T.: 0.000 min
Response: 5689865
Conc: 46.63 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



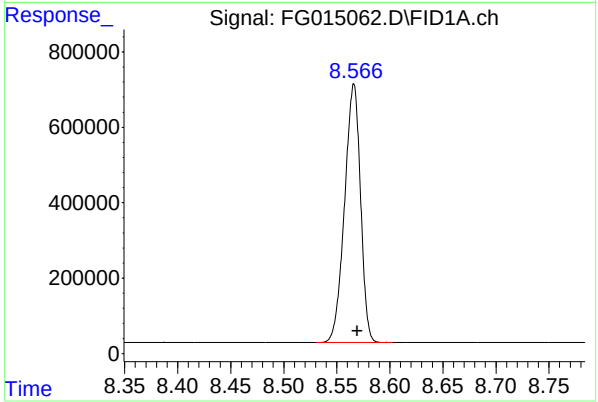
#2 N-DECANE

R.T.: 4.547 min
Delta R.T.: -0.002 min
Response: 6668871
Conc: 51.63 ug/ml



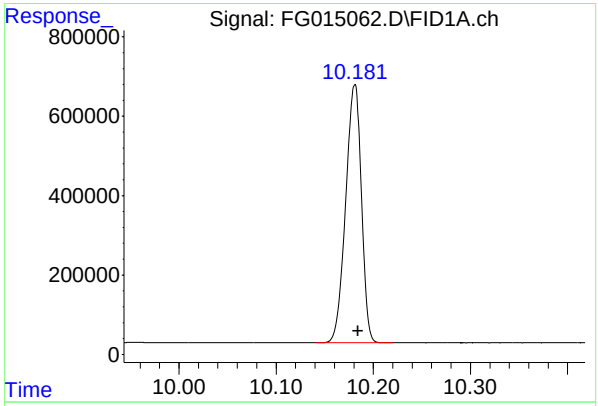
#3 N-DODECANE

R.T.: 6.729 min
Delta R.T.: -0.003 min
Response: 6965368
Conc: 51.13 ug/ml



#4 N-TETRADECANE

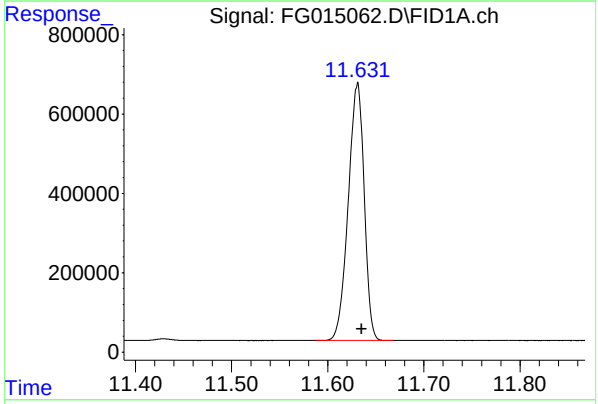
R.T.: 8.566 min
Delta R.T.: -0.003 min
Response: 7162213
Conc: 52.33 ug/ml



#5 N-HEXADECANE

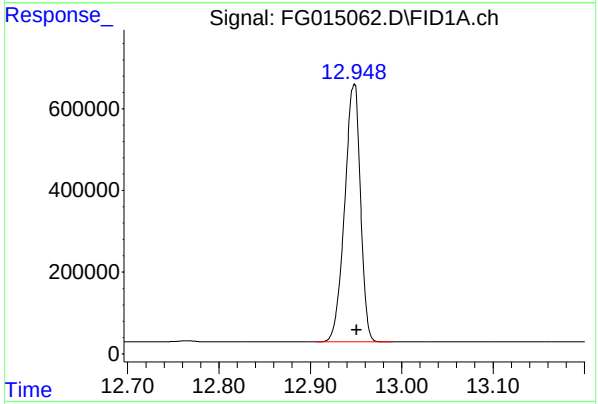
R.T.: 10.181 min
Delta R.T.: -0.003 min
Response: 7292547
Conc: 51.68 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



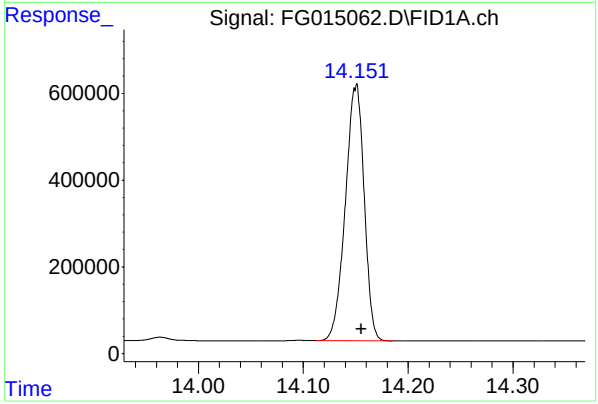
#6 N-OCTADECANE

R.T.: 11.631 min
Delta R.T.: -0.004 min
Response: 7485788
Conc: 51.03 ug/ml



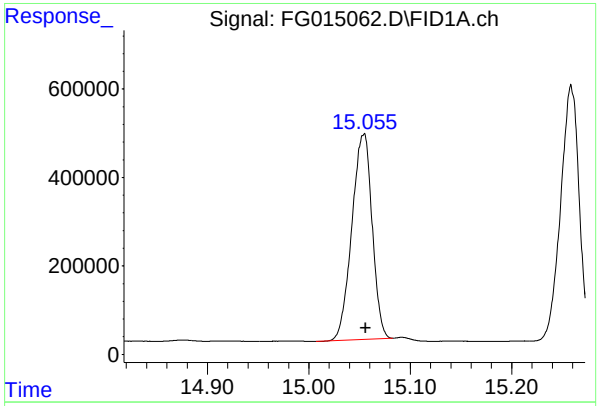
#7 N-EICOSANE

R.T.: 12.948 min
Delta R.T.: -0.003 min
Response: 7583215
Conc: 52.16 ug/ml



#8 N-DOCOSANE

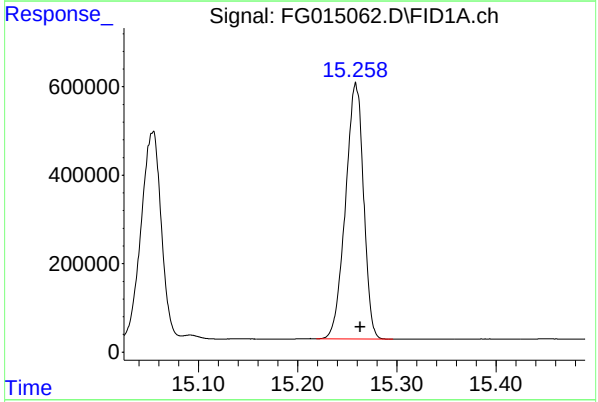
R.T.: 14.150 min
Delta R.T.: -0.005 min
Response: 7362758
Conc: 51.32 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

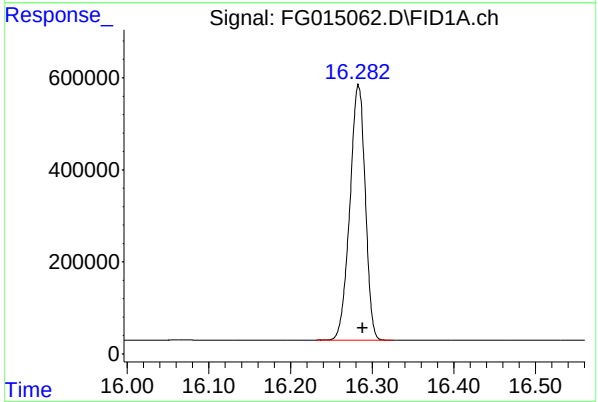
R.T.: 15.054 min
Delta R.T.: -0.002 min
Response: 6435456
Conc: 50.17 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



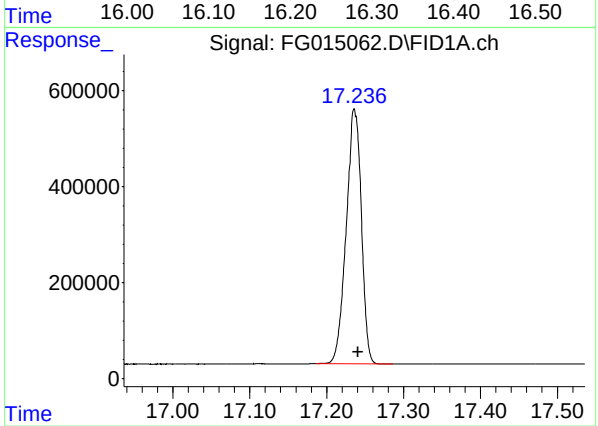
#10 N-TETRACOSANE

R.T.: 15.259 min
Delta R.T.: -0.005 min
Response: 7320313
Conc: 51.25 ug/ml



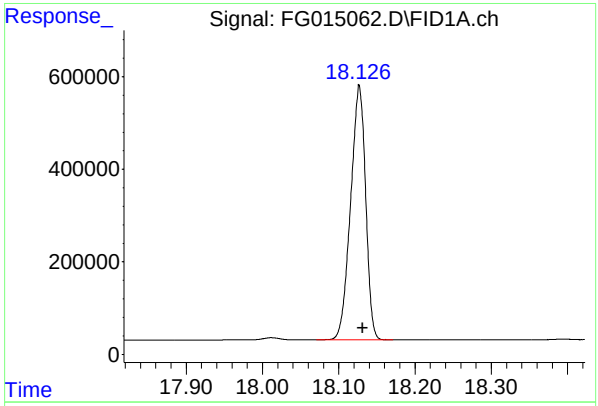
#11 N-HEXACOSANE

R.T.: 16.283 min
Delta R.T.: -0.005 min
Response: 7276923
Conc: 51.67 ug/ml



#12 N-OCTACOSANE

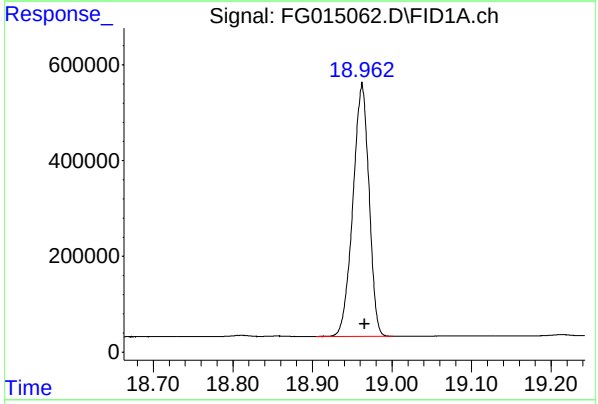
R.T.: 17.236 min
Delta R.T.: -0.005 min
Response: 7251213
Conc: 51.78 ug/ml



#13 N-TRIACONTANE

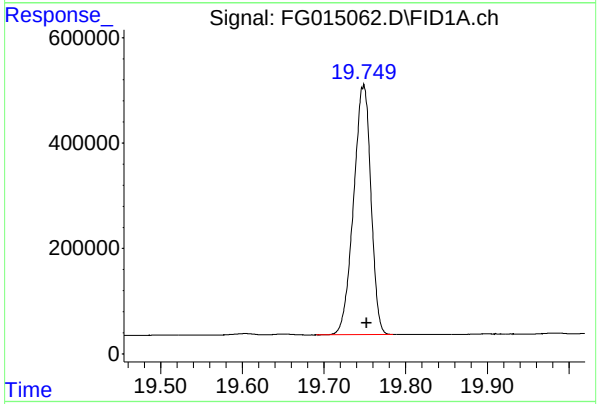
R.T.: 18.127 min
Delta R.T.: -0.005 min
Response: 7526376
Conc: 52.90 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



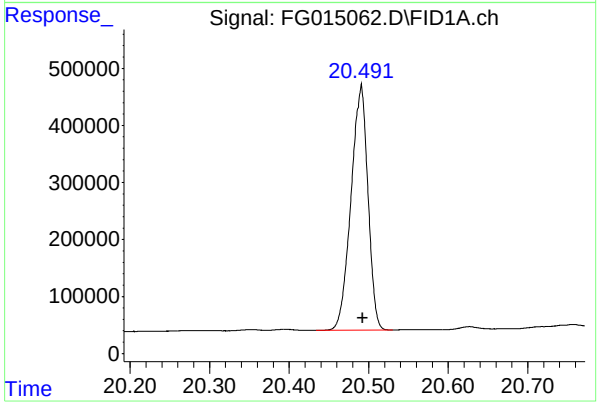
#14 N-DOTRIACONTANE

R.T.: 18.962 min
Delta R.T.: -0.003 min
Response: 7422331
Conc: 53.40 ug/ml



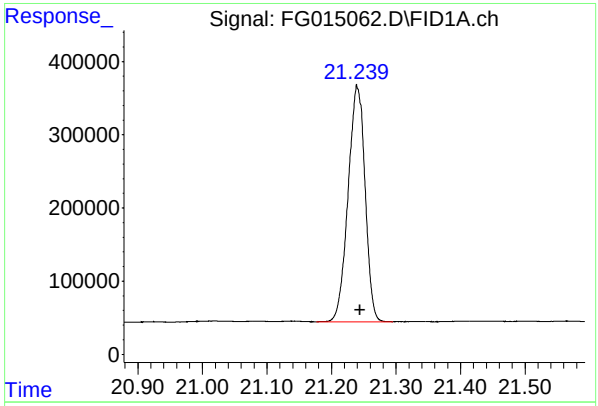
#15 N-TETRATRIACONTANE

R.T.: 19.748 min
Delta R.T.: -0.004 min
Response: 6986454
Conc: 55.76 ug/ml



#16 N-HEXATRIACONTANE

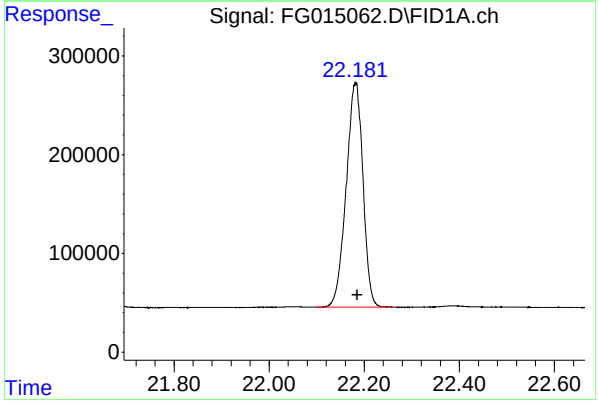
R.T.: 20.491 min
Delta R.T.: -0.001 min
Response: 6347544
Conc: 58.74 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.240 min
Delta R.T.: -0.005 min
Response: 5886866
Conc: 59.68 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



#18 N-TETRACONTANE

R.T.: 22.182 min
Delta R.T.: -0.003 min
Response: 5565107
Conc: 59.94 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015062.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 12:07
Sample : FG011325ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG011325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.011	1.976	2.071	BB	527275	5689865	75.03%	4.580%
2	4.547	4.506	4.589	BB	660717	6668871	87.94%	5.368%
3	6.729	6.692	6.767	BB	697252	6965368	91.85%	5.607%
4	8.566	8.530	8.603	BB	686560	7162213	94.45%	5.765%
5	10.181	10.141	10.220	BB	650981	7292547	96.17%	5.870%
6	11.631	11.588	11.668	BB	649600	7485788	98.72%	6.026%
7	12.948	12.906	12.990	BB	631462	7583215	100.00%	6.104%
8	14.150	14.112	14.185	BB	585011	7362758	97.09%	5.927%
9	15.054	15.007	15.083	BV	463600	6435456	84.86%	5.180%
10	15.259	15.219	15.296	BB	578906	7320313	96.53%	5.893%
11	16.283	16.231	16.325	BB	555163	7276923	95.96%	5.858%
12	17.236	17.186	17.286	BB	531755	7251213	95.62%	5.837%
13	18.127	18.070	18.171	BB	549655	7526376	99.25%	6.058%
14	18.962	18.905	19.001	BB	528971	7422331	97.88%	5.975%
15	19.748	19.690	19.785	BB	473839	6986454	92.13%	5.624%
16	20.491	20.434	20.530	BB	432268	6347544	83.71%	5.110%
17	21.240	21.176	21.295	BB	321478	5886866	77.63%	4.739%
18	22.182	22.099	22.260	BB	226472	5565107	73.39%	4.480%

Sum of corrected areas: 124229206

FG011325.M Mon Jan 13 13:56:24 2025

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FE052168.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	48882662	97765	106182	7.927

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FE052180.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	46710313	93421	106182	12.018

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FE052190.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47002499	94005	106182	11.468

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FG015283.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	70835484	141671	140262	1.005

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1232 SAS No.: Q1232 SDG No.: Q1232

DataFile: FG015292.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	70307909	140616	140262	0.252

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_G

GC Column: RXI-1MS **ID:** 0.18 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION **15.2554**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	31 Jan 2025 09:56	FE052167.D	15.274	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 10:26	FE052168.D	15.275	
PB166415BL	PB166415BL	31 Jan 2025 12:08	FE052171.D	15.271	
PB166415BS	PB166415BS	31 Jan 2025 12:38	FE052172.D	15.270	
PIBLK02	I.BLK02	31 Jan 2025 16:09	FE052179.D	15.300	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 16:40	FE052180.D	15.300	
JPP-5.3-013025MS	Q1241-05MS	31 Jan 2025 17:10	FE052181.D	15.243	
JPP-5.3-013025MSD	Q1241-05MSD	31 Jan 2025 17:40	FE052182.D	15.248	
PIBLK03	I.BLK03	31 Jan 2025 21:12	FE052189.D	15.299	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 22:12	FE052190.D	15.300	
PIBLK04	I.BLK04	31 Jan 2025 15:48	FG015282.D	15.066	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 16:17	FG015283.D	15.069	
JPP-46.2-012925	Q1232-01	31 Jan 2025 18:11	FG015284.D	15.013	
JPP-46.1-012925	Q1232-05	31 Jan 2025 18:39	FG015285.D	15.010	
JPP-42.1-012925	Q1232-09	31 Jan 2025 19:08	FG015286.D	15.010	
JPP-42.2-012925	Q1232-13	31 Jan 2025 19:36	FG015287.D	15.010	
JPP-51.1-012925	Q1232-17	31 Jan 2025 20:05	FG015288.D	15.007	
PIBLK05	I.BLK05	31 Jan 2025 21:30	FG015291.D	15.058	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 22:27	FG015292.D	15.062	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	14.9514	15.1514

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-46.2-012925								
Q1232-03	JPP-46.2-012925	SOIL	Aluminum	4460		2.51	5.21	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Antimony	0.20	J	0.16	2.61	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Arsenic	2.69		0.30	1.04	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Barium	45.2		0.67	5.21	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Beryllium	0.37		0.013	0.31	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Cadmium	0.21	J	0.017	0.31	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Calcium	7210		2.92	104	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Chromium	10.5		0.056	0.52	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Cobalt	5.10		0.060	1.56	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Copper	72.6		0.49	1.04	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Iron	10400		2.81	5.21	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Lead	109		0.16	0.63	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Magnesium	2260		3.58	104	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Manganese	213		0.074	1.04	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Mercury	0.29		0.0060	0.013	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Nickel	16.9		0.094	2.09	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Potassium	970		29.9	104	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Sodium	403		37.6	104	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Vanadium	15.2		0.28	2.09	mg/Kg
Q1232-03	JPP-46.2-012925	SOIL	Zinc	106		0.12	2.09	mg/Kg
Client ID : JPP-46.1-012925								
Q1232-07	JPP-46.1-012925	SOIL	Aluminum	3300		2.27	4.71	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Arsenic	2.04		0.27	0.94	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Barium	33.0		0.60	4.71	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Beryllium	0.35		0.011	0.28	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Cadmium	0.84		0.015	0.28	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Calcium	11800		2.64	94.1	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Chromium	9.90		0.051	0.47	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Cobalt	6.02		0.055	1.41	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Copper	31.7		0.44	0.94	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Iron	9810		2.53	4.71	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Lead	34.9		0.14	0.56	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Magnesium	4220		3.23	94.1	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Manganese	145		0.067	0.94	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Mercury	0.072		0.0060	0.014	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Nickel	14.0		0.085	1.88	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Potassium	1080		27.0	94.1	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1232-07	JPP-46.1-012925	SOIL	Sodium	323		34.0	94.1	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Vanadium	12.1		0.25	1.88	mg/Kg
Q1232-07	JPP-46.1-012925	SOIL	Zinc	42.3		0.10	1.88	mg/Kg
Client ID : JPP-42.1-012925								
Q1232-11	JPP-42.1-012925	SOIL	Aluminum	4770		2.44	5.07	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Antimony	0.42	J	0.15	2.53	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Arsenic	3.68		0.29	1.01	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Barium	70.0		0.65	5.07	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Beryllium	0.33		0.012	0.30	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Cadmium	0.43		0.016	0.30	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Calcium	30500		2.84	101	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Chromium	13.1		0.055	0.51	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Cobalt	5.90		0.059	1.52	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Copper	40.7		0.48	1.01	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Iron	10500		2.73	5.07	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Lead	118		0.15	0.61	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Magnesium	3470		3.48	101	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Manganese	240		0.072	1.01	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Mercury	0.44		0.0060	0.014	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Nickel	16.1		0.091	2.03	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Potassium	1350		29.1	101	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Sodium	470		36.6	101	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Vanadium	17.6		0.27	2.03	mg/Kg
Q1232-11	JPP-42.1-012925	SOIL	Zinc	91.5		0.11	2.03	mg/Kg
Client ID : JPP-42.2-012925								
Q1232-15	JPP-42.2-012925	SOIL	Aluminum	3500		2.56	5.31	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Antimony	0.28	J	0.16	2.66	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Arsenic	2.80		0.31	1.06	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Barium	41.0		0.68	5.31	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Beryllium	0.29	J	0.013	0.32	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Cadmium	0.23	J	0.017	0.32	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Calcium	16600		2.97	106	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Chromium	9.32		0.057	0.53	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Cobalt	4.33		0.062	1.59	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Copper	32.4		0.50	1.06	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Iron	9530		2.86	5.31	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Lead	70.1		0.16	0.64	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Magnesium	2780		3.64	106	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Manganese	137		0.075	1.06	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1232-15	JPP-42.2-012925	SOIL	Mercury	0.20		0.0060	0.013	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Nickel	14.9		0.096	2.12	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Potassium	958		30.5	106	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Sodium	244		38.4	106	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Vanadium	13.5		0.29	2.12	mg/Kg
Q1232-15	JPP-42.2-012925	SOIL	Zinc	61.0		0.12	2.12	mg/Kg
Client ID : JPP-51.1-012925								
Q1232-19	JPP-51.1-012925	SOIL	Aluminum	5750		2.27	4.72	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Antimony	0.30	J	0.14	2.36	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Arsenic	4.88		0.27	0.94	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Barium	97.2		0.60	4.72	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Beryllium	0.44		0.011	0.28	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Cadmium	0.79		0.015	0.28	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Calcium	20800		2.64	94.3	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Chromium	14.9		0.051	0.47	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Cobalt	7.21		0.055	1.41	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Copper	70.6		0.44	0.94	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Iron	13800		2.54	4.72	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Lead	225		0.14	0.57	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Magnesium	4590		3.23	94.3	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Manganese	228		0.067	0.94	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Mercury	0.87	D	0.027	0.061	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Nickel	25.2		0.085	1.89	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Potassium	1230		27.1	94.3	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Sodium	590		34.0	94.3	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Vanadium	20.9		0.26	1.89	mg/Kg
Q1232-19	JPP-51.1-012925	SOIL	Zinc	160		0.10	1.89	mg/Kg

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4460		1	2.51	5.21	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-36-0	Antimony	0.20	JN	1	0.16	2.61	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-38-2	Arsenic	2.69		1	0.30	1.04	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-39-3	Barium	45.2		1	0.67	5.21	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-41-7	Beryllium	0.37		1	0.013	0.31	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-43-9	Cadmium	0.21	J	1	0.017	0.31	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-70-2	Calcium	7210		1	2.92	104	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-47-3	Chromium	10.5		1	0.056	0.52	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-48-4	Cobalt	5.10		1	0.060	1.56	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-50-8	Copper	72.6		1	0.49	1.04	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7439-89-6	Iron	10400		1	2.81	5.21	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7439-92-1	Lead	109	N	1	0.16	0.63	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7439-95-4	Magnesium	2260		1	3.58	104	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7439-96-5	Manganese	213		1	0.074	1.04	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7439-97-6	Mercury	0.29		1	0.0060	0.013	mg/Kg	01/30/25 16:50	01/31/25 14:01	SW7471B	
7440-02-0	Nickel	16.9		1	0.094	2.09	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-09-7	Potassium	970	N	1	29.9	104	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7782-49-2	Selenium	1.04	U	1	0.34	1.04	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-22-4	Silver	0.52	U	1	0.054	0.52	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-23-5	Sodium	403		1	37.6	104	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-28-0	Thallium	2.09	U	1	0.46	2.09	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-62-2	Vanadium	15.2	N	1	0.28	2.09	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050
7440-66-6	Zinc	106		1	0.12	2.09	mg/Kg	01/30/25 15:10	01/31/25 13:22	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	94

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3300		1	2.27	4.71	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-36-0	Antimony	2.35	UN	1	0.14	2.35	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-38-2	Arsenic	2.04		1	0.27	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-39-3	Barium	33.0		1	0.60	4.71	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-41-7	Beryllium	0.35		1	0.011	0.28	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-43-9	Cadmium	0.84		1	0.015	0.28	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-70-2	Calcium	11800		1	2.64	94.1	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-47-3	Chromium	9.90		1	0.051	0.47	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-48-4	Cobalt	6.02		1	0.055	1.41	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-50-8	Copper	31.7		1	0.44	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7439-89-6	Iron	9810		1	2.53	4.71	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7439-92-1	Lead	34.9	N	1	0.14	0.56	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7439-95-4	Magnesium	4220		1	3.23	94.1	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7439-96-5	Manganese	145		1	0.067	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7439-97-6	Mercury	0.072		1	0.0060	0.014	mg/Kg	01/30/25 16:50	01/31/25 14:03	SW7471B	
7440-02-0	Nickel	14.0		1	0.085	1.88	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-09-7	Potassium	1080	N	1	27.0	94.1	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7782-49-2	Selenium	0.94	U	1	0.31	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-22-4	Silver	0.47	U	1	0.049	0.47	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-23-5	Sodium	323		1	34.0	94.1	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-28-0	Thallium	1.88	U	1	0.41	1.88	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-62-2	Vanadium	12.1	N	1	0.25	1.88	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050
7440-66-6	Zinc	42.3		1	0.10	1.88	mg/Kg	01/30/25 15:10	01/31/25 13:27	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
Level (low/med):	low	% Solid:	88.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4770		1	2.44	5.07	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-36-0	Antimony	0.42	JN	1	0.15	2.53	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-38-2	Arsenic	3.68		1	0.29	1.01	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-39-3	Barium	70.0		1	0.65	5.07	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-41-7	Beryllium	0.33		1	0.012	0.30	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-43-9	Cadmium	0.43		1	0.016	0.30	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-70-2	Calcium	30500		1	2.84	101	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-47-3	Chromium	13.1		1	0.055	0.51	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-48-4	Cobalt	5.90		1	0.059	1.52	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-50-8	Copper	40.7		1	0.48	1.01	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7439-89-6	Iron	10500		1	2.73	5.07	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7439-92-1	Lead	118	N	1	0.15	0.61	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7439-95-4	Magnesium	3470		1	3.48	101	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7439-96-5	Manganese	240		1	0.072	1.01	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7439-97-6	Mercury	0.44		1	0.0060	0.014	mg/Kg	01/30/25 16:50	01/31/25 14:05	SW7471B	
7440-02-0	Nickel	16.1		1	0.091	2.03	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-09-7	Potassium	1350	N	1	29.1	101	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7782-49-2	Selenium	1.01	U	1	0.33	1.01	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-22-4	Silver	0.51	U	1	0.053	0.51	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-23-5	Sodium	470		1	36.6	101	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-28-0	Thallium	2.03	U	1	0.45	2.03	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-62-2	Vanadium	17.6	N	1	0.27	2.03	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050
7440-66-6	Zinc	91.5		1	0.11	2.03	mg/Kg	01/30/25 15:10	01/31/25 13:31	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
Level (low/med):	low	% Solid:	93.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3500		1	2.56	5.31	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-36-0	Antimony	0.28	JN	1	0.16	2.66	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-38-2	Arsenic	2.80		1	0.31	1.06	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-39-3	Barium	41.0		1	0.68	5.31	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-41-7	Beryllium	0.29	J	1	0.013	0.32	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-43-9	Cadmium	0.23	J	1	0.017	0.32	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-70-2	Calcium	16600		1	2.97	106	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-47-3	Chromium	9.32		1	0.057	0.53	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-48-4	Cobalt	4.33		1	0.062	1.59	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-50-8	Copper	32.4		1	0.50	1.06	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7439-89-6	Iron	9530		1	2.86	5.31	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7439-92-1	Lead	70.1	N	1	0.16	0.64	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7439-95-4	Magnesium	2780		1	3.64	106	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7439-96-5	Manganese	137		1	0.075	1.06	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7439-97-6	Mercury	0.20		1	0.0060	0.013	mg/Kg	01/30/25 16:50	01/31/25 14:08	SW7471B	
7440-02-0	Nickel	14.9		1	0.096	2.12	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-09-7	Potassium	958	N	1	30.5	106	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7782-49-2	Selenium	1.06	U	1	0.35	1.06	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-22-4	Silver	0.53	U	1	0.055	0.53	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-23-5	Sodium	244		1	38.4	106	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-28-0	Thallium	2.12	U	1	0.47	2.12	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-62-2	Vanadium	13.5	N	1	0.29	2.12	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050
7440-66-6	Zinc	61.0		1	0.12	2.12	mg/Kg	01/30/25 15:10	01/31/25 13:35	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
Level (low/med):	low	% Solid:	95.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5750		1	2.27	4.72	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-36-0	Antimony	0.30	JN	1	0.14	2.36	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-38-2	Arsenic	4.88		1	0.27	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-39-3	Barium	97.2		1	0.60	4.72	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-41-7	Beryllium	0.44		1	0.011	0.28	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-43-9	Cadmium	0.79		1	0.015	0.28	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-70-2	Calcium	20800		1	2.64	94.3	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-47-3	Chromium	14.9		1	0.051	0.47	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-48-4	Cobalt	7.21		1	0.055	1.41	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-50-8	Copper	70.6		1	0.44	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7439-89-6	Iron	13800		1	2.54	4.72	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7439-92-1	Lead	225	N	1	0.14	0.57	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7439-95-4	Magnesium	4590		1	3.23	94.3	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7439-96-5	Manganese	228		1	0.067	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7439-97-6	Mercury	0.87	D	5	0.027	0.061	mg/Kg	01/30/25 16:50	01/31/25 14:49	SW7471B	
7440-02-0	Nickel	25.2		1	0.085	1.89	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-09-7	Potassium	1230	N	1	27.1	94.3	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7782-49-2	Selenium	0.94	U	1	0.31	0.94	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-22-4	Silver	0.47	U	1	0.049	0.47	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-23-5	Sodium	590		1	34.0	94.3	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-28-0	Thallium	1.89	U	1	0.42	1.89	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-62-2	Vanadium	20.9	N	1	0.26	1.89	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050
7440-66-6	Zinc	160		1	0.10	1.89	mg/Kg	01/30/25 15:10	01/31/25 13:39	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV77	Mercury	3.97	4.0	99	90 - 110	CV	01/31/2025	13:15	LB134501

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV92	Mercury	4.92	5.0	98	90 - 110	CV	01/31/2025	13:19	LB134501
CCV93	Mercury	4.98	5.0	100	90 - 110	CV	01/31/2025	13:47	LB134501
CCV94	Mercury	5.01	5.0	100	90 - 110	CV	01/31/2025	14:15	LB134501
CCV95	Mercury	5.00	5.0	100	90 - 110	CV	01/31/2025	14:42	LB134501
CCV96	Mercury	5.03	5.0	100	90 - 110	CV	01/31/2025	14:52	LB134501

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2400	2500	96	90 - 110	P	01/31/2025	11:23	LB134505
	Antimony	1020	1000	102	90 - 110	P	01/31/2025	11:23	LB134505
	Arsenic	1030	1000	103	90 - 110	P	01/31/2025	11:23	LB134505
	Barium	478	520	92	90 - 110	P	01/31/2025	11:23	LB134505
	Beryllium	487	510	96	90 - 110	P	01/31/2025	11:23	LB134505
	Cadmium	496	510	97	90 - 110	P	01/31/2025	11:23	LB134505
	Calcium	9560	10000	96	90 - 110	P	01/31/2025	11:23	LB134505
	Chromium	519	520	100	90 - 110	P	01/31/2025	11:23	LB134505
	Cobalt	501	520	96	90 - 110	P	01/31/2025	11:23	LB134505
	Copper	515	510	101	90 - 110	P	01/31/2025	11:23	LB134505
	Iron	9830	10000	98	90 - 110	P	01/31/2025	11:23	LB134505
	Lead	997	1000	100	90 - 110	P	01/31/2025	11:23	LB134505
	Magnesium	5620	6000	94	90 - 110	P	01/31/2025	11:23	LB134505
	Manganese	488	520	94	90 - 110	P	01/31/2025	11:23	LB134505
	Nickel	504	530	95	90 - 110	P	01/31/2025	11:23	LB134505
	Potassium	9640	9900	97	90 - 110	P	01/31/2025	11:23	LB134505
	Selenium	1040	1000	104	90 - 110	P	01/31/2025	11:23	LB134505
	Silver	252	250	101	90 - 110	P	01/31/2025	11:23	LB134505
	Sodium	9160	10000	92	90 - 110	P	01/31/2025	11:23	LB134505
	Thallium	1020	1000	102	90 - 110	P	01/31/2025	11:23	LB134505
	Vanadium	481	500	96	90 - 110	P	01/31/2025	11:23	LB134505
	Zinc	1010	1000	101	90 - 110	P	01/31/2025	11:23	LB134505

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	103	100	103	80 - 120	P	01/31/2025	11:27	LB134505
	Antimony	50.9	50.0	102	80 - 120	P	01/31/2025	11:27	LB134505
	Arsenic	23.2	20.0	116	80 - 120	P	01/31/2025	11:27	LB134505
	Barium	92.6	100	93	80 - 120	P	01/31/2025	11:27	LB134505
	Beryllium	5.53	6.0	92	80 - 120	P	01/31/2025	11:27	LB134505
	Cadmium	5.82	6.0	97	80 - 120	P	01/31/2025	11:27	LB134505
	Calcium	1920	2000	96	80 - 120	P	01/31/2025	11:27	LB134505
	Chromium	9.80	10.0	98	80 - 120	P	01/31/2025	11:27	LB134505
	Cobalt	29.1	30.0	97	80 - 120	P	01/31/2025	11:27	LB134505
	Copper	21.7	20.0	108	80 - 120	P	01/31/2025	11:27	LB134505
	Iron	103	100	103	80 - 120	P	01/31/2025	11:27	LB134505
	Lead	12.9	12.0	108	80 - 120	P	01/31/2025	11:27	LB134505
	Magnesium	2040	2000	102	80 - 120	P	01/31/2025	11:27	LB134505
	Manganese	19.5	20.0	98	80 - 120	P	01/31/2025	11:27	LB134505
	Nickel	39.2	40.0	98	80 - 120	P	01/31/2025	11:27	LB134505
	Potassium	2050	2000	102	80 - 120	P	01/31/2025	11:27	LB134505
	Selenium	19.2	20.0	96	80 - 120	P	01/31/2025	11:27	LB134505
	Silver	10.3	10.0	104	80 - 120	P	01/31/2025	11:27	LB134505
	Sodium	1950	2000	98	80 - 120	P	01/31/2025	11:27	LB134505
	Thallium	37.8	40.0	95	80 - 120	P	01/31/2025	11:27	LB134505
	Vanadium	39.9	40.0	100	80 - 120	P	01/31/2025	11:27	LB134505
	Zinc	41.2	40.0	103	80 - 120	P	01/31/2025	11:27	LB134505

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9490	10000	95	90 - 110	P	01/31/2025	12:16	LB134505
	Antimony	4880	5000	98	90 - 110	P	01/31/2025	12:16	LB134505
	Arsenic	4860	5000	97	90 - 110	P	01/31/2025	12:16	LB134505
	Barium	9620	10000	96	90 - 110	P	01/31/2025	12:16	LB134505
	Beryllium	251	250	100	90 - 110	P	01/31/2025	12:16	LB134505
	Cadmium	2380	2500	95	90 - 110	P	01/31/2025	12:16	LB134505
	Calcium	23600	25000	94	90 - 110	P	01/31/2025	12:16	LB134505
	Chromium	956	1000	96	90 - 110	P	01/31/2025	12:16	LB134505
	Cobalt	2380	2500	95	90 - 110	P	01/31/2025	12:16	LB134505
	Copper	1220	1250	98	90 - 110	P	01/31/2025	12:16	LB134505
	Iron	4860	5000	97	90 - 110	P	01/31/2025	12:16	LB134505
	Lead	4780	5000	96	90 - 110	P	01/31/2025	12:16	LB134505
	Magnesium	23200	25000	93	90 - 110	P	01/31/2025	12:16	LB134505
	Manganese	2340	2500	94	90 - 110	P	01/31/2025	12:16	LB134505
	Nickel	2380	2500	95	90 - 110	P	01/31/2025	12:16	LB134505
	Potassium	24500	25000	98	90 - 110	P	01/31/2025	12:16	LB134505
	Selenium	4910	5000	98	90 - 110	P	01/31/2025	12:16	LB134505
	Silver	1190	1250	96	90 - 110	P	01/31/2025	12:16	LB134505
	Sodium	24500	25000	98	90 - 110	P	01/31/2025	12:16	LB134505
	Thallium	5080	5000	102	90 - 110	P	01/31/2025	12:16	LB134505
	Vanadium	2370	2500	95	90 - 110	P	01/31/2025	12:16	LB134505
	Zinc	2410	2500	96	90 - 110	P	01/31/2025	12:16	LB134505
CCV02	Aluminum	9670	10000	97	90 - 110	P	01/31/2025	13:06	LB134505
	Antimony	4970	5000	100	90 - 110	P	01/31/2025	13:06	LB134505
	Arsenic	4930	5000	99	90 - 110	P	01/31/2025	13:06	LB134505
	Barium	9270	10000	93	90 - 110	P	01/31/2025	13:06	LB134505
	Beryllium	227	250	91	90 - 110	P	01/31/2025	13:06	LB134505
	Cadmium	2360	2500	94	90 - 110	P	01/31/2025	13:06	LB134505
	Calcium	23200	25000	93	90 - 110	P	01/31/2025	13:06	LB134505
	Chromium	971	1000	97	90 - 110	P	01/31/2025	13:06	LB134505
	Cobalt	2380	2500	95	90 - 110	P	01/31/2025	13:06	LB134505
	Copper	1240	1250	99	90 - 110	P	01/31/2025	13:06	LB134505
	Iron	4780	5000	96	90 - 110	P	01/31/2025	13:06	LB134505
	Lead	4760	5000	95	90 - 110	P	01/31/2025	13:06	LB134505

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	23400	25000	94	90 - 110	P	01/31/2025	13:06	LB134505
	Manganese	2260	2500	91	90 - 110	P	01/31/2025	13:06	LB134505
	Nickel	2380	2500	95	90 - 110	P	01/31/2025	13:06	LB134505
	Potassium	24600	25000	98	90 - 110	P	01/31/2025	13:06	LB134505
	Selenium	5020	5000	100	90 - 110	P	01/31/2025	13:06	LB134505
	Silver	1190	1250	95	90 - 110	P	01/31/2025	13:06	LB134505
	Sodium	24000	25000	96	90 - 110	P	01/31/2025	13:06	LB134505
	Thallium	5100	5000	102	90 - 110	P	01/31/2025	13:06	LB134505
	Vanadium	2370	2500	95	90 - 110	P	01/31/2025	13:06	LB134505
	Zinc	2410	2500	96	90 - 110	P	01/31/2025	13:06	LB134505
CCV03	Aluminum	9820	10000	98	90 - 110	P	01/31/2025	13:57	LB134505
	Antimony	4880	5000	98	90 - 110	P	01/31/2025	13:57	LB134505
	Arsenic	4840	5000	97	90 - 110	P	01/31/2025	13:57	LB134505
	Barium	9480	10000	95	90 - 110	P	01/31/2025	13:57	LB134505
	Beryllium	246	250	98	90 - 110	P	01/31/2025	13:57	LB134505
	Cadmium	2390	2500	96	90 - 110	P	01/31/2025	13:57	LB134505
	Calcium	23700	25000	95	90 - 110	P	01/31/2025	13:57	LB134505
	Chromium	982	1000	98	90 - 110	P	01/31/2025	13:57	LB134505
	Cobalt	2390	2500	96	90 - 110	P	01/31/2025	13:57	LB134505
	Copper	1230	1250	98	90 - 110	P	01/31/2025	13:57	LB134505
	Iron	4710	5000	94	90 - 110	P	01/31/2025	13:57	LB134505
	Lead	4790	5000	96	90 - 110	P	01/31/2025	13:57	LB134505
	Magnesium	23700	25000	95	90 - 110	P	01/31/2025	13:57	LB134505
	Manganese	2330	2500	93	90 - 110	P	01/31/2025	13:57	LB134505
	Nickel	2390	2500	96	90 - 110	P	01/31/2025	13:57	LB134505
	Potassium	23900	25000	96	90 - 110	P	01/31/2025	13:57	LB134505
	Selenium	4880	5000	98	90 - 110	P	01/31/2025	13:57	LB134505
	Silver	1220	1250	97	90 - 110	P	01/31/2025	13:57	LB134505
	Sodium	22600	25000	90	90 - 110	P	01/31/2025	13:57	LB134505
	Thallium	5160	5000	103	90 - 110	P	01/31/2025	13:57	LB134505
	Vanadium	2400	2500	96	90 - 110	P	01/31/2025	13:57	LB134505
	Zinc	2440	2500	98	90 - 110	P	01/31/2025	13:57	LB134505
CCV04	Aluminum	9870	10000	99	90 - 110	P	01/31/2025	14:47	LB134505
	Antimony	5050	5000	101	90 - 110	P	01/31/2025	14:47	LB134505

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	5030	5000	101	90 - 110	P	01/31/2025	14:47	LB134505
	Barium	9430	10000	94	90 - 110	P	01/31/2025	14:47	LB134505
	Beryllium	243	250	97	90 - 110	P	01/31/2025	14:47	LB134505
	Cadmium	2440	2500	97	90 - 110	P	01/31/2025	14:47	LB134505
	Calcium	23500	25000	94	90 - 110	P	01/31/2025	14:47	LB134505
	Chromium	1010	1000	101	90 - 110	P	01/31/2025	14:47	LB134505
	Cobalt	2430	2500	97	90 - 110	P	01/31/2025	14:47	LB134505
	Copper	1260	1250	101	90 - 110	P	01/31/2025	14:47	LB134505
	Iron	4760	5000	95	90 - 110	P	01/31/2025	14:47	LB134505
	Lead	4880	5000	98	90 - 110	P	01/31/2025	14:47	LB134505
	Magnesium	23700	25000	95	90 - 110	P	01/31/2025	14:47	LB134505
	Manganese	2280	2500	91	90 - 110	P	01/31/2025	14:47	LB134505
	Nickel	2430	2500	97	90 - 110	P	01/31/2025	14:47	LB134505
	Potassium	24300	25000	97	90 - 110	P	01/31/2025	14:47	LB134505
	Selenium	5090	5000	102	90 - 110	P	01/31/2025	14:47	LB134505
	Silver	1240	1250	99	90 - 110	P	01/31/2025	14:47	LB134505
	Sodium	22600	25000	90	90 - 110	P	01/31/2025	14:47	LB134505
	Thallium	5290	5000	106	90 - 110	P	01/31/2025	14:47	LB134505
	Vanadium	2400	2500	96	90 - 110	P	01/31/2025	14:47	LB134505
	Zinc	2510	2500	101	90 - 110	P	01/31/2025	14:47	LB134505
CCV05	Aluminum	9620	10000	96	90 - 110	P	01/31/2025	15:25	LB134505
	Antimony	4930	5000	98	90 - 110	P	01/31/2025	15:25	LB134505
	Arsenic	4900	5000	98	90 - 110	P	01/31/2025	15:25	LB134505
	Barium	9380	10000	94	90 - 110	P	01/31/2025	15:25	LB134505
	Beryllium	230	250	92	90 - 110	P	01/31/2025	15:25	LB134505
	Cadmium	2370	2500	95	90 - 110	P	01/31/2025	15:25	LB134505
	Calcium	23300	25000	93	90 - 110	P	01/31/2025	15:25	LB134505
	Chromium	979	1000	98	90 - 110	P	01/31/2025	15:25	LB134505
	Cobalt	2370	2500	95	90 - 110	P	01/31/2025	15:25	LB134505
	Copper	1230	1250	98	90 - 110	P	01/31/2025	15:25	LB134505
	Iron	4860	5000	97	90 - 110	P	01/31/2025	15:25	LB134505
	Lead	4750	5000	95	90 - 110	P	01/31/2025	15:25	LB134505
	Magnesium	23200	25000	93	90 - 110	P	01/31/2025	15:25	LB134505
	Manganese	2280	2500	91	90 - 110	P	01/31/2025	15:25	LB134505

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2370	2500	95	90 - 110	P	01/31/2025	15:25	LB134505
	Potassium	24900	25000	100	90 - 110	P	01/31/2025	15:25	LB134505
	Selenium	4970	5000	99	90 - 110	P	01/31/2025	15:25	LB134505
	Silver	1210	1250	97	90 - 110	P	01/31/2025	15:25	LB134505
	Sodium	23900	25000	96	90 - 110	P	01/31/2025	15:25	LB134505
	Thallium	5000	5000	100	90 - 110	P	01/31/2025	15:25	LB134505
	Vanadium	2370	2500	95	90 - 110	P	01/31/2025	15:25	LB134505
	Zinc	2420	2500	97	90 - 110	P	01/31/2025	15:25	LB134505

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Aluminum	99.4	100	99	40 - 160	P	01/31/2025	11:36	LB134505
	Antimony	49.4	50.0	99	40 - 160	P	01/31/2025	11:36	LB134505
	Arsenic	21.0	20.0	105	40 - 160	P	01/31/2025	11:36	LB134505
	Barium	89.7	100	90	40 - 160	P	01/31/2025	11:36	LB134505
	Beryllium	5.63	6.0	94	40 - 160	P	01/31/2025	11:36	LB134505
	Cadmium	5.77	6.0	96	40 - 160	P	01/31/2025	11:36	LB134505
	Calcium	1900	2000	95	40 - 160	P	01/31/2025	11:36	LB134505
	Chromium	9.68	10.0	97	40 - 160	P	01/31/2025	11:36	LB134505
	Cobalt	28.8	30.0	96	40 - 160	P	01/31/2025	11:36	LB134505
	Copper	21.0	20.0	105	40 - 160	P	01/31/2025	11:36	LB134505
	Iron	94.7	100	95	40 - 160	P	01/31/2025	11:36	LB134505
	Lead	11.4	12.0	95	40 - 160	P	01/31/2025	11:36	LB134505
	Magnesium	2020	2000	101	40 - 160	P	01/31/2025	11:36	LB134505
	Manganese	19.3	20.0	97	40 - 160	P	01/31/2025	11:36	LB134505
	Nickel	38.4	40.0	96	40 - 160	P	01/31/2025	11:36	LB134505
	Potassium	1910	2000	96	40 - 160	P	01/31/2025	11:36	LB134505
	Selenium	20.7	20.0	103	40 - 160	P	01/31/2025	11:36	LB134505
	Silver	10.2	10.0	102	40 - 160	P	01/31/2025	11:36	LB134505
	Sodium	1810	2000	90	40 - 160	P	01/31/2025	11:36	LB134505
	Thallium	38.9	40.0	97	40 - 160	P	01/31/2025	11:36	LB134505
	Vanadium	39.6	40.0	99	40 - 160	P	01/31/2025	11:36	LB134505
	Zinc	40.8	40.0	102	40 - 160	P	01/31/2025	11:36	LB134505
CRA	Mercury	0.18	0.2	91	40 - 160	CV	01/31/2025	13:24	LB134501

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB77	Mercury	0.20	+/-0.20	U	0.20	CV	01/31/2025	13:17	LB134501

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB92	Mercury	0.20	+/-0.20	U	0.20	CV	01/31/2025	13:21	LB134501
CCB93	Mercury	0.20	+/-0.20	U	0.20	CV	01/31/2025	13:49	LB134501
CCB94	Mercury	0.20	+/-0.20	U	0.20	CV	01/31/2025	14:17	LB134501
CCB95	Mercury	0.20	+/-0.20	U	0.20	CV	01/31/2025	14:45	LB134501
CCB96	Mercury	0.20	+/-0.20	U	0.20	CV	01/31/2025	14:54	LB134501

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	01/31/2025	11:32	LB134505
	Antimony	50.0	+/-50.0	U	50.0	P	01/31/2025	11:32	LB134505
	Arsenic	20.0	+/-20.0	U	20.0	P	01/31/2025	11:32	LB134505
	Barium	100	+/-100	U	100	P	01/31/2025	11:32	LB134505
	Beryllium	6.00	+/-6.00	U	6.00	P	01/31/2025	11:32	LB134505
	Cadmium	6.00	+/-6.00	U	6.00	P	01/31/2025	11:32	LB134505
	Calcium	2000	+/-2000	U	2000	P	01/31/2025	11:32	LB134505
	Chromium	10.0	+/-10.0	U	10.0	P	01/31/2025	11:32	LB134505
	Cobalt	30.0	+/-30.0	U	30.0	P	01/31/2025	11:32	LB134505
	Copper	20.0	+/-20.0	U	20.0	P	01/31/2025	11:32	LB134505
	Iron	100	+/-100	U	100	P	01/31/2025	11:32	LB134505
	Lead	12.0	+/-12.0	U	12.0	P	01/31/2025	11:32	LB134505
	Magnesium	2000	+/-2000	U	2000	P	01/31/2025	11:32	LB134505
	Manganese	20.0	+/-20.0	U	20.0	P	01/31/2025	11:32	LB134505
	Nickel	40.0	+/-40.0	U	40.0	P	01/31/2025	11:32	LB134505
	Potassium	2000	+/-2000	U	2000	P	01/31/2025	11:32	LB134505
	Selenium	20.0	+/-20.0	U	20.0	P	01/31/2025	11:32	LB134505
	Silver	10.0	+/-10.0	U	10.0	P	01/31/2025	11:32	LB134505
	Sodium	2000	+/-2000	U	2000	P	01/31/2025	11:32	LB134505
	Thallium	40.0	+/-40.0	U	40.0	P	01/31/2025	11:32	LB134505
	Vanadium	40.0	+/-40.0	U	40.0	P	01/31/2025	11:32	LB134505
	Zinc	40.0	+/-40.0	U	40.0	P	01/31/2025	11:32	LB134505

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	01/31/2025	12:20	LB134505
	Antimony	50.0	+/-50.0	U	50.0	P	01/31/2025	12:20	LB134505
	Arsenic	20.0	+/-20.0	U	20.0	P	01/31/2025	12:20	LB134505
	Barium	100	+/-100	U	100	P	01/31/2025	12:20	LB134505
	Beryllium	6.00	+/-6.00	U	6.00	P	01/31/2025	12:20	LB134505
	Cadmium	6.00	+/-6.00	U	6.00	P	01/31/2025	12:20	LB134505
	Calcium	2000	+/-2000	U	2000	P	01/31/2025	12:20	LB134505
	Chromium	10.0	+/-10.0	U	10.0	P	01/31/2025	12:20	LB134505
	Cobalt	30.0	+/-30.0	U	30.0	P	01/31/2025	12:20	LB134505
	Copper	20.0	+/-20.0	U	20.0	P	01/31/2025	12:20	LB134505
	Iron	100	+/-100	U	100	P	01/31/2025	12:20	LB134505
	Lead	12.0	+/-12.0	U	12.0	P	01/31/2025	12:20	LB134505
	Magnesium	2000	+/-2000	U	2000	P	01/31/2025	12:20	LB134505
	Manganese	20.0	+/-20.0	U	20.0	P	01/31/2025	12:20	LB134505
	Nickel	40.0	+/-40.0	U	40.0	P	01/31/2025	12:20	LB134505
	Potassium	2000	+/-2000	U	2000	P	01/31/2025	12:20	LB134505
	Selenium	20.0	+/-20.0	U	20.0	P	01/31/2025	12:20	LB134505
	Silver	10.0	+/-10.0	U	10.0	P	01/31/2025	12:20	LB134505
	Sodium	2000	+/-2000	U	2000	P	01/31/2025	12:20	LB134505
	Thallium	40.0	+/-40.0	U	40.0	P	01/31/2025	12:20	LB134505
	Vanadium	40.0	+/-40.0	U	40.0	P	01/31/2025	12:20	LB134505
	Zinc	40.0	+/-40.0	U	40.0	P	01/31/2025	12:20	LB134505
CCB02	Aluminum	100	+/-100	U	100	P	01/31/2025	13:10	LB134505
	Antimony	50.0	+/-50.0	U	50.0	P	01/31/2025	13:10	LB134505
	Arsenic	20.0	+/-20.0	U	20.0	P	01/31/2025	13:10	LB134505
	Barium	100	+/-100	U	100	P	01/31/2025	13:10	LB134505
	Beryllium	6.00	+/-6.00	U	6.00	P	01/31/2025	13:10	LB134505
	Cadmium	6.00	+/-6.00	U	6.00	P	01/31/2025	13:10	LB134505
	Calcium	2000	+/-2000	U	2000	P	01/31/2025	13:10	LB134505
	Chromium	10.0	+/-10.0	U	10.0	P	01/31/2025	13:10	LB134505
	Cobalt	30.0	+/-30.0	U	30.0	P	01/31/2025	13:10	LB134505
	Copper	20.0	+/-20.0	U	20.0	P	01/31/2025	13:10	LB134505
	Iron	100	+/-100	U	100	P	01/31/2025	13:10	LB134505
	Lead	12.0	+/-12.0	U	12.0	P	01/31/2025	13:10	LB134505
	Magnesium	2000	+/-2000	U	2000	P	01/31/2025	13:10	LB134505
	Manganese	20.0	+/-20.0	U	20.0	P	01/31/2025	13:10	LB134505
	Nickel	40.0	+/-40.0	U	40.0	P	01/31/2025	13:10	LB134505
	Potassium	2000	+/-2000	U	2000	P	01/31/2025	13:10	LB134505
	Selenium	20.0	+/-20.0	U	20.0	P	01/31/2025	13:10	LB134505

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	01/31/2025	13:10	LB134505
	Sodium	2000	+/-2000	U	2000	P	01/31/2025	13:10	LB134505
	Thallium	40.0	+/-40.0	U	40.0	P	01/31/2025	13:10	LB134505
	Vanadium	40.0	+/-40.0	U	40.0	P	01/31/2025	13:10	LB134505
	Zinc	40.0	+/-40.0	U	40.0	P	01/31/2025	13:10	LB134505
CCB03	Aluminum	100	+/-100	U	100	P	01/31/2025	14:01	LB134505
	Antimony	50.0	+/-50.0	U	50.0	P	01/31/2025	14:01	LB134505
	Arsenic	20.0	+/-20.0	U	20.0	P	01/31/2025	14:01	LB134505
	Barium	100	+/-100	U	100	P	01/31/2025	14:01	LB134505
	Beryllium	6.00	+/-6.00	U	6.00	P	01/31/2025	14:01	LB134505
	Cadmium	6.00	+/-6.00	U	6.00	P	01/31/2025	14:01	LB134505
	Calcium	2000	+/-2000	U	2000	P	01/31/2025	14:01	LB134505
	Chromium	10.0	+/-10.0	U	10.0	P	01/31/2025	14:01	LB134505
	Cobalt	30.0	+/-30.0	U	30.0	P	01/31/2025	14:01	LB134505
	Copper	20.0	+/-20.0	U	20.0	P	01/31/2025	14:01	LB134505
	Iron	100	+/-100	U	100	P	01/31/2025	14:01	LB134505
	Lead	12.0	+/-12.0	U	12.0	P	01/31/2025	14:01	LB134505
	Magnesium	2000	+/-2000	U	2000	P	01/31/2025	14:01	LB134505
	Manganese	20.0	+/-20.0	U	20.0	P	01/31/2025	14:01	LB134505
	Nickel	40.0	+/-40.0	U	40.0	P	01/31/2025	14:01	LB134505
	Potassium	2000	+/-2000	U	2000	P	01/31/2025	14:01	LB134505
	Selenium	20.0	+/-20.0	U	20.0	P	01/31/2025	14:01	LB134505
	Silver	10.0	+/-10.0	U	10.0	P	01/31/2025	14:01	LB134505
	Sodium	2000	+/-2000	U	2000	P	01/31/2025	14:01	LB134505
	Thallium	40.0	+/-40.0	U	40.0	P	01/31/2025	14:01	LB134505
	Vanadium	40.0	+/-40.0	U	40.0	P	01/31/2025	14:01	LB134505
	Zinc	40.0	+/-40.0	U	40.0	P	01/31/2025	14:01	LB134505
CCB04	Aluminum	100	+/-100	U	100	P	01/31/2025	14:52	LB134505
	Antimony	50.0	+/-50.0	U	50.0	P	01/31/2025	14:52	LB134505
	Arsenic	20.0	+/-20.0	U	20.0	P	01/31/2025	14:52	LB134505
	Barium	100	+/-100	U	100	P	01/31/2025	14:52	LB134505
	Beryllium	6.00	+/-6.00	U	6.00	P	01/31/2025	14:52	LB134505
	Cadmium	6.00	+/-6.00	U	6.00	P	01/31/2025	14:52	LB134505
	Calcium	2000	+/-2000	U	2000	P	01/31/2025	14:52	LB134505
	Chromium	10.0	+/-10.0	U	10.0	P	01/31/2025	14:52	LB134505
	Cobalt	30.0	+/-30.0	U	30.0	P	01/31/2025	14:52	LB134505
	Copper	20.0	+/-20.0	U	20.0	P	01/31/2025	14:52	LB134505
	Iron	100	+/-100	U	100	P	01/31/2025	14:52	LB134505
	Lead	12.0	+/-12.0	U	12.0	P	01/31/2025	14:52	LB134505

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	01/31/2025	14:52	LB134505
	Manganese	20.0	+/-20.0	U	20.0	P	01/31/2025	14:52	LB134505
	Nickel	40.0	+/-40.0	U	40.0	P	01/31/2025	14:52	LB134505
	Potassium	2000	+/-2000	U	2000	P	01/31/2025	14:52	LB134505
	Selenium	20.0	+/-20.0	U	20.0	P	01/31/2025	14:52	LB134505
	Silver	10.0	+/-10.0	U	10.0	P	01/31/2025	14:52	LB134505
	Sodium	2000	+/-2000	U	2000	P	01/31/2025	14:52	LB134505
	Thallium	40.0	+/-40.0	U	40.0	P	01/31/2025	14:52	LB134505
	Vanadium	40.0	+/-40.0	U	40.0	P	01/31/2025	14:52	LB134505
	Zinc	40.0	+/-40.0	U	40.0	P	01/31/2025	14:52	LB134505
CCB05	Aluminum	100	+/-100	U	100	P	01/31/2025	15:29	LB134505
	Antimony	50.0	+/-50.0	U	50.0	P	01/31/2025	15:29	LB134505
	Arsenic	20.0	+/-20.0	U	20.0	P	01/31/2025	15:29	LB134505
	Barium	100	+/-100	U	100	P	01/31/2025	15:29	LB134505
	Beryllium	6.00	+/-6.00	U	6.00	P	01/31/2025	15:29	LB134505
	Cadmium	6.00	+/-6.00	U	6.00	P	01/31/2025	15:29	LB134505
	Calcium	2000	+/-2000	U	2000	P	01/31/2025	15:29	LB134505
	Chromium	10.0	+/-10.0	U	10.0	P	01/31/2025	15:29	LB134505
	Cobalt	30.0	+/-30.0	U	30.0	P	01/31/2025	15:29	LB134505
	Copper	20.0	+/-20.0	U	20.0	P	01/31/2025	15:29	LB134505
	Iron	100	+/-100	U	100	P	01/31/2025	15:29	LB134505
	Lead	12.0	+/-12.0	U	12.0	P	01/31/2025	15:29	LB134505
	Magnesium	2000	+/-2000	U	2000	P	01/31/2025	15:29	LB134505
	Manganese	20.0	+/-20.0	U	20.0	P	01/31/2025	15:29	LB134505
	Nickel	40.0	+/-40.0	U	40.0	P	01/31/2025	15:29	LB134505
	Potassium	2000	+/-2000	U	2000	P	01/31/2025	15:29	LB134505
	Selenium	20.0	+/-20.0	U	20.0	P	01/31/2025	15:29	LB134505
	Silver	10.0	+/-10.0	U	10.0	P	01/31/2025	15:29	LB134505
	Sodium	2000	+/-2000	U	2000	P	01/31/2025	15:29	LB134505
	Thallium	40.0	+/-40.0	U	40.0	P	01/31/2025	15:29	LB134505
	Vanadium	40.0	+/-40.0	U	40.0	P	01/31/2025	15:29	LB134505
	Zinc	40.0	+/-40.0	U	40.0	P	01/31/2025	15:29	LB134505

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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166402BL		**SOLID**		**Batch Number:**	**PB166402**		**Prep Date:**	**01/30/2025**	
	Mercury	0.013	<0.013	U	0.013	CV	01/31/2025	13:31	LB134501

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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166387BL		**SOLID**		**Batch Number:**	**PB166387**		**Prep Date:**	**01/30/2025**	
	Aluminum	4.08	<4.08	U	4.08	P	01/31/2025	14:22	LB134505
	Antimony	2.04	<2.04	U	2.04	P	01/31/2025	14:22	LB134505
	Arsenic	0.82	<0.82	U	0.82	P	01/31/2025	14:22	LB134505
	Barium	4.08	<4.08	U	4.08	P	01/31/2025	14:22	LB134505
	Beryllium	0.25	<0.25	U	0.25	P	01/31/2025	14:22	LB134505
	Cadmium	0.25	<0.25	U	0.25	P	01/31/2025	14:22	LB134505
	Calcium	81.6	<81.6	U	81.6	P	01/31/2025	14:22	LB134505
	Chromium	0.41	<0.41	U	0.41	P	01/31/2025	14:22	LB134505
	Cobalt	1.22	<1.22	U	1.22	P	01/31/2025	14:22	LB134505
	Copper	0.82	<0.82	U	0.82	P	01/31/2025	14:22	LB134505
	Iron	4.08	<4.08	U	4.08	P	01/31/2025	14:22	LB134505
	Lead	0.49	<0.49	U	0.49	P	01/31/2025	14:22	LB134505
	Magnesium	81.6	<81.6	U	81.6	P	01/31/2025	14:22	LB134505
	Manganese	0.82	<0.82	U	0.82	P	01/31/2025	14:22	LB134505
	Nickel	1.63	<1.63	U	1.63	P	01/31/2025	14:22	LB134505
	Potassium	81.6	<81.6	U	81.6	P	01/31/2025	14:22	LB134505
	Selenium	0.82	<0.82	U	0.82	P	01/31/2025	14:22	LB134505
	Silver	0.41	<0.41	U	0.41	P	01/31/2025	14:22	LB134505
	Sodium	81.6	<81.6	U	81.6	P	01/31/2025	14:22	LB134505
	Thallium	1.63	<1.63	U	1.63	P	01/31/2025	14:22	LB134505
	Vanadium	1.63	<1.63	U	1.63	P	01/31/2025	14:22	LB134505
	Zinc	1.63	<1.63	U	1.63	P	01/31/2025	14:22	LB134505

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	240000	255000	94	216000	294000	01/31/2025	11:47	LB134505
	Antimony	-2.70			-50	50	01/31/2025	11:47	LB134505
	Arsenic	2.15			-20	20	01/31/2025	11:47	LB134505
	Barium	2.86	6.0	48	-94	106	01/31/2025	11:47	LB134505
	Beryllium	1.33			-6	6	01/31/2025	11:47	LB134505
	Cadmium	-0.026	1.0	3	-5	7	01/31/2025	11:47	LB134505
	Calcium	225000	245000	92	208000	282000	01/31/2025	11:47	LB134505
	Chromium	55.5	52.0	107	42	62	01/31/2025	11:47	LB134505
	Cobalt	1.61			-30	30	01/31/2025	11:47	LB134505
	Copper	11.8	2.0	590	-18	22	01/31/2025	11:47	LB134505
	Iron	98700	101000	98	85600	116500	01/31/2025	11:47	LB134505
	Lead	8.45			-12	12	01/31/2025	11:47	LB134505
	Magnesium	242000	255000	95	216000	294000	01/31/2025	11:47	LB134505
	Manganese	6.39	7.0	91	-13	27	01/31/2025	11:47	LB134505
	Nickel	2.95	2.0	148	-38	42	01/31/2025	11:47	LB134505
	Potassium	97.3			0	0	01/31/2025	11:47	LB134505
	Selenium	-19.7			-20	20	01/31/2025	11:47	LB134505
	Silver	-3.42			-10	10	01/31/2025	11:47	LB134505
	Sodium	62.8			0	0	01/31/2025	11:47	LB134505
	Thallium	9.31			-40	40	01/31/2025	11:47	LB134505
	Vanadium	5.36			-40	40	01/31/2025	11:47	LB134505
	Zinc	3.14			-40	40	01/31/2025	11:47	LB134505
ICSAB01	Aluminum	239000	247000	97	209000	285000	01/31/2025	11:53	LB134505
	Antimony	621	618	100	525	711	01/31/2025	11:53	LB134505
	Arsenic	113	104	109	88.4	120	01/31/2025	11:53	LB134505
	Barium	479	537	89	437	637	01/31/2025	11:53	LB134505
	Beryllium	483	495	98	420	570	01/31/2025	11:53	LB134505
	Cadmium	992	972	102	826	1120	01/31/2025	11:53	LB134505
	Calcium	226000	235000	96	199000	271000	01/31/2025	11:53	LB134505
	Chromium	552	542	102	460	624	01/31/2025	11:53	LB134505
	Cobalt	502	476	106	404	548	01/31/2025	11:53	LB134505
	Copper	497	511	97	434	588	01/31/2025	11:53	LB134505
	Iron	96700	99300	97	84400	114500	01/31/2025	11:53	LB134505
	Lead	58.4	49.0	119	37	61	01/31/2025	11:53	LB134505
	Magnesium	242000	248000	98	210000	286000	01/31/2025	11:53	LB134505
	Manganese	469	507	92	430	584	01/31/2025	11:53	LB134505
	Nickel	991	954	104	810	1100	01/31/2025	11:53	LB134505
	Potassium	112			0	0	01/31/2025	11:53	LB134505
	Selenium	35.4	46.0	77	26	66	01/31/2025	11:53	LB134505
	Silver	211	201	105	170	232	01/31/2025	11:53	LB134505
	Sodium	46.6			0	0	01/31/2025	11:53	LB134505
	Thallium	94.3	108	87	68	148	01/31/2025	11:53	LB134505

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	469	491	96	417	565	01/31/2025	11:53	LB134505
	Zinc	1040	952	109	809	1095	01/31/2025	11:53	LB134505

METAL QC DATA

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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1232

contract: RUTW01 **lab code:** CHEM **case no.:** Q1232 **sas no.:** Q1232

matrix: Solid **sample id:** Q1235-07 **client id:** JPP-16.1-012925MS

Percent Solids for Sample: 89.2 **Spiked ID:** Q1235-07MS **Percent Solids for Spike Sample:** 89.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	4430		4460		110	-22		P
Antimony	mg/Kg	75 - 125	21.9		0.90	J	43.3	49	N	P
Arsenic	mg/Kg	75 - 125	45.7		4.60		43.3	95		P
Barium	mg/Kg	75 - 125	89.2		80.4		10.8	81		P
Beryllium	mg/Kg	75 - 125	9.17		0.34		10.8	82		P
Cadmium	mg/Kg	75 - 125	10.8		0.44		10.8	95		P
Calcium	mg/Kg	75 - 125	30000		28600		54.2	2576		P
Chromium	mg/Kg	75 - 125	33.7		13.0		21.7	96		P
Cobalt	mg/Kg	75 - 125	16.0		4.72		10.8	105		P
Copper	mg/Kg	75 - 125	68.9		72.0		16.2	-19		P
Iron	mg/Kg	75 - 125	9930		9910		160	11		P
Lead	mg/Kg	75 - 125	236		184		54.2	96		P
Magnesium	mg/Kg	75 - 125	9850		7860		110	1806		P
Manganese	mg/Kg	75 - 125	174		156		10.8	171		P
Mercury	mg/Kg	80 - 120	0.55		0.31		0.27	87		CV
Nickel	mg/Kg	75 - 125	41.9		15.4		27.1	98		P
Potassium	mg/Kg	75 - 125	1660		1160		540	94		P
Selenium	mg/Kg	75 - 125	94.1		0.92	U	110	86		P
Silver	mg/Kg	75 - 125	3.81		0.068	J	4.1	91		P
Sodium	mg/Kg	75 - 125	1250		1180		160	46		P
Thallium	mg/Kg	75 - 125	104		1.84	U	110	94		P
Vanadium	mg/Kg	75 - 125	31.1		18.0		16.2	81		P
Zinc	mg/Kg	75 - 125	130		117		10.8	114		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1232

contract: RUTW01 **lab code:** CHEM **case no.:** Q1232 **sas no.:** Q1232

matrix: Solid **sample id:** Q1235-07 **client id:** JPP-16.1-012925MSD

Percent Solids for Sample: 89.2 **Spiked ID:** Q1235-07MSD **Percent Solids for Spike Sample:** 89.2

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	3840		4460		93.4	-655		P
Antimony	mg/Kg	75 - 125	18.8		0.90	J	37.4	48	N	P
Arsenic	mg/Kg	75 - 125	39.3		4.60		37.4	93		P
Barium	mg/Kg	75 - 125	79.2		80.4		9.3	-13		P
Beryllium	mg/Kg	75 - 125	7.94		0.34		9.3	82		P
Cadmium	mg/Kg	75 - 125	9.25		0.44		9.3	95		P
Calcium	mg/Kg	75 - 125	26100		28600		46.7	-5216		P
Chromium	mg/Kg	75 - 125	28.6		13.0		18.7	84		P
Cobalt	mg/Kg	75 - 125	13.8		4.72		9.3	98		P
Copper	mg/Kg	75 - 125	59.4		72.0		14.0	-90		P
Iron	mg/Kg	75 - 125	8620		9910		140	-925		P
Lead	mg/Kg	75 - 125	204		184		46.7	42	N	P
Magnesium	mg/Kg	75 - 125	8590		7860		93.4	783		P
Manganese	mg/Kg	75 - 125	155		156		9.3	-11		P
Mercury	mg/Kg	80 - 120	0.60		0.31		0.27	106		CV
Nickel	mg/Kg	75 - 125	36.2		15.4		23.4	89		P
Potassium	mg/Kg	75 - 125	1440		1160		470	59	N	P
Selenium	mg/Kg	75 - 125	80.6		0.92	U	93.4	86		P
Silver	mg/Kg	75 - 125	3.27		0.068	J	3.5	92		P
Sodium	mg/Kg	75 - 125	1100		1180		140	-54		P
Thallium	mg/Kg	75 - 125	89.2		1.84	U	93.4	96		P
Vanadium	mg/Kg	75 - 125	27.2		18.0		14.0	65	N	P
Zinc	mg/Kg	75 - 125	110		117		9.3	-82		P

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Metals
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POST DIGEST SPIKE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Matrix: Solid **Level:** LOW **Client ID:** JPP-16.1-012925A

Sample ID: Q1235-07 **Spiked ID:** Q1235-07A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	18.0		0.90	J	36.8	46		P
Lead	mg/Kg	75 - 125	197		184		45.9	29		P
Potassium	mg/Kg	75 - 125	1350		1160		460	42		P
Vanadium	mg/Kg	75 - 125	26.2		18.0		13.8	59		P

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Matrix: Solid **Sample ID:** Q1235-07 **Client ID:** JPP-16.1-012925DUP

Percent Solids for Sample: 89.2 **Duplicate ID** Q1235-07DUP **Percent Solids for Spike Sample:** 89.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	4460		5000		11		P
Antimony	mg/Kg	20	0.90	J	1.15	J	24		P
Arsenic	mg/Kg	20	4.60		5.04		9		P
Barium	mg/Kg	20	80.4		91.6		13		P
Beryllium	mg/Kg	20	0.34		0.38		12		P
Cadmium	mg/Kg	20	0.44		0.49		10		P
Calcium	mg/Kg	20	28600		32600		13		P
Chromium	mg/Kg	20	13.0		14.4		10		P
Cobalt	mg/Kg	20	4.72		5.30		12		P
Copper	mg/Kg	20	72.0		80.6		11		P
Iron	mg/Kg	20	9910		11200		12		P
Lead	mg/Kg	20	184		207		12		P
Magnesium	mg/Kg	20	7860		8870		12		P
Manganese	mg/Kg	20	156		178		13		P
Mercury	mg/Kg	20	0.31		0.32		2		CV
Nickel	mg/Kg	20	15.4		17.4		12		P
Potassium	mg/Kg	20	1160		1290		11		P
Selenium	mg/Kg	20	0.92	U	1.03	U			P
Silver	mg/Kg	20	0.068	J	0.11	J	43		P
Sodium	mg/Kg	20	1180		1330		12		P
Thallium	mg/Kg	20	1.84	U	2.06	U			P
Vanadium	mg/Kg	20	18.0		20.4		12		P
Zinc	mg/Kg	20	117		130		11		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Matrix: Solid **Sample ID:** Q1235-07MS **Client ID:** JPP-16.1-012925MSD

Percent Solids for Sample: 89.2 **Duplicate ID** Q1235-07MSD **Percent Solids for Spike Sample:** 89.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	4430		3840		14		P
Antimony	mg/Kg	20	21.9		18.8		15		P
Arsenic	mg/Kg	20	45.7		39.3		15		P
Barium	mg/Kg	20	89.2		79.2		12		P
Beryllium	mg/Kg	20	9.17		7.94		14		P
Cadmium	mg/Kg	20	10.8		9.25		15		P
Calcium	mg/Kg	20	30000		26100		14		P
Chromium	mg/Kg	20	33.7		28.6		16		P
Cobalt	mg/Kg	20	16.0		13.8		15		P
Copper	mg/Kg	20	68.9		59.4		15		P
Iron	mg/Kg	20	9930		8620		14		P
Lead	mg/Kg	20	236		204		15		P
Magnesium	mg/Kg	20	9850		8590		14		P
Manganese	mg/Kg	20	174		155		12		P
Mercury	mg/Kg	20	0.55		0.60		9		CV
Nickel	mg/Kg	20	41.9		36.2		15		P
Potassium	mg/Kg	20	1660		1440		14		P
Selenium	mg/Kg	20	94.1		80.6		15		P
Silver	mg/Kg	20	3.81		3.27		15		P
Sodium	mg/Kg	20	1250		1100		13		P
Thallium	mg/Kg	20	104		89.2		15		P
Vanadium	mg/Kg	20	31.1		27.2		13		P
Zinc	mg/Kg	20	130		110		17		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166387BS							
Aluminum	mg/Kg	81.6	78.6		96	80 - 120	P
Antimony	mg/Kg	32.7	31.7		97	80 - 120	P
Arsenic	mg/Kg	32.7	32.7		100	80 - 120	P
Barium	mg/Kg	8.2	7.43		91	80 - 120	P
Beryllium	mg/Kg	8.2	7.66		93	80 - 120	P
Cadmium	mg/Kg	8.2	7.67		94	80 - 120	P
Calcium	mg/Kg	40.8	40.3	J	99	80 - 120	P
Chromium	mg/Kg	16.3	16.2		99	80 - 120	P
Cobalt	mg/Kg	8.2	7.72		94	80 - 120	P
Copper	mg/Kg	12.2	12.4		102	80 - 120	P
Iron	mg/Kg	120	119		99	80 - 120	P
Lead	mg/Kg	40.8	38.7		95	80 - 120	P
Magnesium	mg/Kg	81.6	76.2	J	93	80 - 120	P
Manganese	mg/Kg	8.2	7.63		93	80 - 120	P
Nickel	mg/Kg	20.4	19.4		95	80 - 120	P
Potassium	mg/Kg	410	398		97	80 - 120	P
Selenium	mg/Kg	81.6	80.8		99	80 - 120	P
Silver	mg/Kg	3.1	3.01		97	80 - 120	P
Sodium	mg/Kg	120	111		92	80 - 120	P
Thallium	mg/Kg	81.6	84.5		104	80 - 120	P
Vanadium	mg/Kg	12.2	11.6		95	80 - 120	P
Zinc	mg/Kg	8.2	8.22		100	80 - 120	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166402BS							
Mercury	mg/Kg	0.25	0.28		114	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-16.1-012925L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134505 **Lab Sample ID :** Q1235-07L **SDG No.:** Q1232

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	4460		4780		7		P
Antimony	0.90	J	11.5	U	100.0		P
Arsenic	4.60		5.03		9		P
Barium	80.4		85.9		7		P
Beryllium	0.34		0.41	J	22		P
Cadmium	0.44		0.19	J	58		P
Calcium	28600		32700		15		P
Chromium	13.0		14.8		14		P
Cobalt	4.72		4.80	J	2		P
Copper	72.0		86.5		20		P
Iron	9910		10600		7		P
Lead	184		196		7		P
Magnesium	7860		8700		11		P
Manganese	156		180		16		P
Mercury	0.31		0.33		7		CV
Nickel	15.4		16.2		5		P
Potassium	1160		1170		1		P
Selenium	0.92	U	4.59	U			P
Silver	0.068	J	2.30	U	100.0		P
Sodium	1180		1090		7		P
Thallium	1.84	U	9.19	U			P
Vanadium	18.0		20.3		13		P
Zinc	117		130		11		P

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1232 **SAS No.:** Q1232

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166387**						
PB166387BL	PB166387BL	MB	SOLID	01/30/2025	2.45	100.0	100.00
PB166387BS	PB166387BS	LCS	SOLID	01/30/2025	2.45	100.0	100.00
Q1232-03	JPP-46.2-012925	SAM	SOLID	01/30/2025	2.15	100.0	89.20
Q1232-07	JPP-46.1-012925	SAM	SOLID	01/30/2025	2.26	100.0	94.00
Q1232-11	JPP-42.1-012925	SAM	SOLID	01/30/2025	2.24	100.0	88.10
Q1232-15	JPP-42.2-012925	SAM	SOLID	01/30/2025	2.02	100.0	93.20
Q1232-19	JPP-51.1-012925	SAM	SOLID	01/30/2025	2.23	100.0	95.10
Q1235-07DUP	JPP-16.1-012925DUP	DUP	SOLID	01/30/2025	2.18	100.0	89.20
Q1235-07MS	JPP-16.1-012925MS	MS	SOLID	01/30/2025	2.07	100.0	89.20
Q1235-07MSD	JPP-16.1-012925MSD	MSD	SOLID	01/30/2025	2.40	100.0	89.20

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Metals
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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1232 **SAS No.:** Q1232

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166402**						
PB166402BL	PB166402BL	MB	SOLID	01/30/2025	0.54	35.0	100.00
PB166402BS	PB166402BS	LCS	SOLID	01/30/2025	0.55	35.0	100.00
Q1232-03	JPP-46.2-012925	SAM	SOLID	01/30/2025	0.60	35.0	89.20
Q1232-07	JPP-46.1-012925	SAM	SOLID	01/30/2025	0.54	35.0	94.00
Q1232-11	JPP-42.1-012925	SAM	SOLID	01/30/2025	0.58	35.0	88.10
Q1232-15	JPP-42.2-012925	SAM	SOLID	01/30/2025	0.59	35.0	93.20
Q1232-19	JPP-51.1-012925	SAM	SOLID	01/30/2025	0.60	35.0	95.10
Q1235-07DUP	JPP-16.1-012925DUP	DUP	SOLID	01/30/2025	0.56	35.0	89.20
Q1235-07MS	JPP-16.1-012925MS	MS	SOLID	01/30/2025	0.59	35.0	89.20
Q1235-07MSD	JPP-16.1-012925MSD	MSD	SOLID	01/30/2025	0.58	35.0	89.20

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1232 **Sas no.:** Q1232 **Sdg no.:** Q1232

Instrument id number: **Method:** **Run number:** LB134501

Start date: 01/31/2025 **End date:** 01/31/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1247	HG
S0.2	S0.2	1	1249	HG
S2.5	S2.5	1	1252	HG
S5	S5	1	1254	HG
S7.5	S7.5	1	1256	HG
S10	S10	1	1301	HG
ICV77	ICV77	1	1315	HG
ICB77	ICB77	1	1317	HG
CCV92	CCV92	1	1319	HG
CCB92	CCB92	1	1321	HG
CRA	CRA	1	1324	HG
PB166402BL	PB166402BL	1	1331	HG
PB166402BS	PB166402BS	1	1333	HG
CCV93	CCV93	1	1347	HG
CCB93	CCB93	1	1349	HG
Q1232-03	JPP-46.2-012925	1	1401	HG
Q1232-07	JPP-46.1-012925	1	1403	HG
Q1232-11	JPP-42.1-012925	1	1405	HG
Q1232-15	JPP-42.2-012925	1	1408	HG
CCV94	CCV94	1	1415	HG
CCB94	CCB94	1	1417	HG
Q1235-07DUP	JPP-16.1-012925DUP	1	1422	HG
Q1235-07MS	JPP-16.1-012925MS	1	1424	HG
Q1235-07MSD	JPP-16.1-012925MSD	1	1426	HG
Q1235-07L	JPP-16.1-012925L	5	1438	HG
CCV95	CCV95	1	1442	HG
CCB95	CCB95	1	1445	HG
Q1232-19	JPP-51.1-012925	5	1449	HG
CCV96	CCV96	1	1452	HG
CCB96	CCB96	1	1454	HG

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1232 **Sas no.:** Q1232 **Sdg no.:** Q1232

Instrument id number: **Method:** **Run number:** LB134505

Start date: 01/31/2025 **End date:** 01/31/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1057	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1102	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1106	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1110	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1115	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1119	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1123	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1127	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1132	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1136	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1147	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1153	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1216	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1220	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1306	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1310	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1232-03	JPP-46.2-012925	1	1322	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1232-07	JPP-46.1-012925	1	1327	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1232-11	JPP-42.1-012925	1	1331	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1232-15	JPP-42.2-012925	1	1335	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1232-19	JPP-51.1-012925	1	1339	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1235-07DUP	JPP-16.1-012925DUP	1	1352	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1357	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1401	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1235-07L	JPP-16.1-012925L	5	1405	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1235-07MS	JPP-16.1-012925MS	1	1409	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1235-07MSD	JPP-16.1-012925MSD	1	1414	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1235-07A	JPP-16.1-012925A	1	1418	K,Pb,Sb,V
PB166387BL	PB166387BL	1	1422	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166387BS	PB166387BS	1	1426	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1447	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1452	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1525	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1529	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-04	**JPP-46.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-08	**JPP-46.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-12	**JPP-42.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/31/25	
Q1232-16	**JPP-42.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25**			**01/30/25**

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LAB CHRONICLE

			Mercury	7471B		01/30/25	01/31/25
			Metals ICP-TAL	6010D		01/30/25	01/31/25
Q1232-20	**JPP-51.1-012925**	**TCLP**			**01/29/25**		**01/30/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25
			TCLP Mercury	7470A		02/03/25	02/03/25

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Hit Summary Sheet
SW-846

SDG No.: Q1232 **Order ID:** Q1232

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-46.2-012925								
Q1232-04	JPP-46.2-012925	TCLP	Barium	557		62.8	500	ug/L
Q1232-04	JPP-46.2-012925	TCLP	Cadmium	1.07	J	0.94	30.0	ug/L
Q1232-04	JPP-46.2-012925	TCLP	Lead	83.3		35.1	60.0	ug/L
Client ID : JPP-46.1-012925								
Q1232-08	JPP-46.1-012925	TCLP	Barium	337	J	62.8	500	ug/L
Q1232-08	JPP-46.1-012925	TCLP	Chromium	9.09	J	6.60	50.0	ug/L
Client ID : JPP-42.1-012925								
Q1232-12	JPP-42.1-012925	TCLP	Barium	258	J	62.8	500	ug/L
Q1232-12	JPP-42.1-012925	TCLP	Chromium	8.41	J	6.60	50.0	ug/L
Client ID : JPP-42.2-012925								
Q1232-16	JPP-42.2-012925	TCLP	Barium	311	J	62.8	500	ug/L
Q1232-16	JPP-42.2-012925	TCLP	Chromium	30.7	J	6.60	50.0	ug/L
Client ID : JPP-51.1-012925								
Q1232-20	JPP-51.1-012925	TCLP	Barium	317	J	62.8	500	ug/L
Q1232-20	JPP-51.1-012925	TCLP	Chromium	11.8	J	6.60	50.0	ug/L

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050
7440-39-3	Barium	557		1	62.8	500	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050
7440-43-9	Cadmium	1.07	J	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050
7439-92-1	Lead	83.3		1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:49	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 16:13	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050
7440-39-3	Barium	337	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050
7440-47-3	Chromium	9.09	J	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:51	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 16:17	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-12	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050
7440-39-3	Barium	258	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050
7440-47-3	Chromium	8.41	J	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:54	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 16:22	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-16	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050
7440-39-3	Barium	311	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050
7440-47-3	Chromium	30.7	J	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:56	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 16:26	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-20	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050
7440-39-3	Barium	317	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050
7440-47-3	Chromium	11.8	J	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:58	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 16:30	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV81	Mercury	3.69	4.0	92	90 - 110	CV	02/03/2025	15:59	LB134537

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Mercury	5.01	5.0	100	90 - 110	CV	02/03/2025	16:03	LB134537
CCV11	Mercury	5.14	5.0	103	90 - 110	CV	02/03/2025	16:33	LB134537
CCV12	Mercury	4.98	5.0	100	90 - 110	CV	02/03/2025	17:01	LB134537
CCV13	Mercury	4.99	5.0	100	90 - 110	CV	02/03/2025	17:23	LB134537

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1030	1000	104	90 - 110	P	02/10/2025	14:06	LB134659
	Barium	502	520	97	90 - 110	P	02/10/2025	14:06	LB134659
	Cadmium	514	510	101	90 - 110	P	02/10/2025	14:06	LB134659
	Chromium	541	520	104	90 - 110	P	02/10/2025	14:06	LB134659
	Lead	1010	1000	101	90 - 110	P	02/10/2025	14:06	LB134659
	Selenium	1080	1000	108	90 - 110	P	02/10/2025	14:06	LB134659
	Silver	256	250	102	90 - 110	P	02/10/2025	14:06	LB134659

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	21.0	20.0	105	80 - 120	P	02/10/2025	14:20	LB134659
	Barium	84.5	100	84	80 - 120	P	02/10/2025	14:20	LB134659
	Cadmium	5.70	6.0	95	80 - 120	P	02/10/2025	14:20	LB134659
	Chromium	9.89	10.0	99	80 - 120	P	02/10/2025	14:20	LB134659
	Lead	11.5	12.0	95	80 - 120	P	02/10/2025	14:20	LB134659
	Selenium	20.3	20.0	101	80 - 120	P	02/10/2025	14:20	LB134659
	Silver	10.3	10.0	103	80 - 120	P	02/10/2025	14:20	LB134659

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	5020	5000	100	90 - 110	P	02/10/2025	14:59	LB134659
	Barium	9910	10000	99	90 - 110	P	02/10/2025	14:59	LB134659
	Cadmium	2640	2500	106	90 - 110	P	02/10/2025	14:59	LB134659
	Chromium	998	1000	100	90 - 110	P	02/10/2025	14:59	LB134659
	Lead	4860	5000	97	90 - 110	P	02/10/2025	14:59	LB134659
	Selenium	5080	5000	102	90 - 110	P	02/10/2025	14:59	LB134659
	Silver	1240	1250	99	90 - 110	P	02/10/2025	14:59	LB134659
CCV02	Arsenic	4720	5000	94	90 - 110	P	02/10/2025	16:05	LB134659
	Barium	10500	10000	105	90 - 110	P	02/10/2025	16:05	LB134659
	Cadmium	2720	2500	109	90 - 110	P	02/10/2025	16:05	LB134659
	Chromium	929	1000	93	90 - 110	P	02/10/2025	16:05	LB134659
	Lead	4520	5000	90	90 - 110	P	02/10/2025	16:05	LB134659
	Selenium	4790	5000	96	90 - 110	P	02/10/2025	16:05	LB134659
	Silver	1150	1250	92	90 - 110	P	02/10/2025	16:05	LB134659
CCV03	Arsenic	5040	5000	101	90 - 110	P	02/10/2025	16:57	LB134659
	Barium	9210	10000	92	90 - 110	P	02/10/2025	16:57	LB134659
	Cadmium	2370	2500	95	90 - 110	P	02/10/2025	16:57	LB134659
	Chromium	991	1000	99	90 - 110	P	02/10/2025	16:57	LB134659
	Lead	4770	5000	95	90 - 110	P	02/10/2025	16:57	LB134659
	Selenium	5140	5000	103	90 - 110	P	02/10/2025	16:57	LB134659
	Silver	1220	1250	98	90 - 110	P	02/10/2025	16:57	LB134659
CCV04	Arsenic	4910	5000	98	90 - 110	P	02/10/2025	17:53	LB134659
	Barium	9210	10000	92	90 - 110	P	02/10/2025	17:53	LB134659
	Cadmium	2320	2500	93	90 - 110	P	02/10/2025	17:53	LB134659
	Chromium	972	1000	97	90 - 110	P	02/10/2025	17:53	LB134659
	Lead	4680	5000	94	90 - 110	P	02/10/2025	17:53	LB134659
	Selenium	5010	5000	100	90 - 110	P	02/10/2025	17:53	LB134659
	Silver	1210	1250	97	90 - 110	P	02/10/2025	17:53	LB134659
CCV05	Arsenic	5050	5000	101	90 - 110	P	02/10/2025	18:48	LB134659
	Barium	9470	10000	95	90 - 110	P	02/10/2025	18:48	LB134659
	Cadmium	2360	2500	94	90 - 110	P	02/10/2025	18:48	LB134659
	Chromium	969	1000	97	90 - 110	P	02/10/2025	18:48	LB134659
	Lead	4760	5000	95	90 - 110	P	02/10/2025	18:48	LB134659
	Selenium	5190	5000	104	90 - 110	P	02/10/2025	18:48	LB134659

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1200	1250	96	90 - 110	P	02/10/2025	18:48	LB134659
CCV06	Arsenic	4890	5000	98	90 - 110	P	02/10/2025	19:40	LB134659
	Barium	9330	10000	93	90 - 110	P	02/10/2025	19:40	LB134659
	Cadmium	2290	2500	92	90 - 110	P	02/10/2025	19:40	LB134659
	Chromium	970	1000	97	90 - 110	P	02/10/2025	19:40	LB134659
	Lead	4630	5000	93	90 - 110	P	02/10/2025	19:40	LB134659
	Selenium	5000	5000	100	90 - 110	P	02/10/2025	19:40	LB134659
	Silver	1200	1250	96	90 - 110	P	02/10/2025	19:40	LB134659
CCV07	Arsenic	4890	5000	98	90 - 110	P	02/10/2025	20:36	LB134659
	Barium	9290	10000	93	90 - 110	P	02/10/2025	20:36	LB134659
	Cadmium	2290	2500	92	90 - 110	P	02/10/2025	20:36	LB134659
	Chromium	968	1000	97	90 - 110	P	02/10/2025	20:36	LB134659
	Lead	4650	5000	93	90 - 110	P	02/10/2025	20:36	LB134659
	Selenium	5010	5000	100	90 - 110	P	02/10/2025	20:36	LB134659
	Silver	1200	1250	96	90 - 110	P	02/10/2025	20:36	LB134659
CCV08	Arsenic	4920	5000	98	90 - 110	P	02/10/2025	21:02	LB134659
	Barium	9300	10000	93	90 - 110	P	02/10/2025	21:02	LB134659
	Cadmium	2320	2500	93	90 - 110	P	02/10/2025	21:02	LB134659
	Chromium	983	1000	98	90 - 110	P	02/10/2025	21:02	LB134659
	Lead	4700	5000	94	90 - 110	P	02/10/2025	21:02	LB134659
	Selenium	5010	5000	100	90 - 110	P	02/10/2025	21:02	LB134659
	Silver	1220	1250	97	90 - 110	P	02/10/2025	21:02	LB134659

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.26	0.2	130	40 - 160	CV	02/03/2025	16:08	LB134537
CRI01	Arsenic	21.7	20.0	108	40 - 160	P	02/10/2025	14:31	LB134659
	Barium	88.7	100	89	40 - 160	P	02/10/2025	14:31	LB134659
	Cadmium	5.75	6.0	96	40 - 160	P	02/10/2025	14:31	LB134659
	Chromium	10.1	10.0	101	40 - 160	P	02/10/2025	14:31	LB134659
	Lead	11.5	12.0	96	40 - 160	P	02/10/2025	14:31	LB134659
	Selenium	19.7	20.0	99	40 - 160	P	02/10/2025	14:31	LB134659
	Silver	10.6	10.0	106	40 - 160	P	02/10/2025	14:31	LB134659

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB81	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	16:01	LB134537

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB10	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	16:06	LB134537
CCB11	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	16:36	LB134537
CCB12	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	17:03	LB134537
CCB13	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	17:26	LB134537

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	14:26	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	14:26	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	14:26	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	14:26	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	14:26	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	14:26	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	14:26	LB134659

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	15:03	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	15:03	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	15:03	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	15:03	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	15:03	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	15:03	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	15:03	LB134659
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	16:08	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	16:08	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	16:08	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	16:08	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	16:08	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	16:08	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	16:08	LB134659
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	17:06	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	17:06	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	17:06	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	17:06	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	17:06	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	17:06	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	17:06	LB134659
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	18:00	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	18:00	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	18:00	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	18:00	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	18:00	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	18:00	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	18:00	LB134659
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	18:52	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	18:52	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	18:52	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	18:52	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	18:52	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	18:52	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	18:52	LB134659
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	19:45	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	19:45	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	19:45	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	19:45	LB134659

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	19:45	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	19:45	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	19:45	LB134659
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	20:41	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	20:41	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	20:41	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	20:41	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	20:41	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	20:41	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	20:41	LB134659
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	21:06	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	21:06	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	21:06	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	21:06	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	21:06	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	21:06	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	21:06	LB134659

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166356TB		**WATER**		**Batch Number:**	**PB166487**		**Prep Date:**	**02/03/2025**	
	Mercury	2.00	<2.00	U	2.00	CV	02/03/2025	17:16	LB134537

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166487BL		**WATER**		**Batch Number:**	**PB166487**		**Prep Date:**	**02/03/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	02/03/2025	16:15	LB134537

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166356TB		**WATER**		**Batch Number:**	**PB166425**		**Prep Date:**	**01/31/2025**	
	Arsenic	100	<100	U	100	P	02/10/2025	15:07	LB134659
	Barium	500	<500	U	500	P	02/10/2025	15:07	LB134659
	Cadmium	30.0	<30.0	U	30.0	P	02/10/2025	15:07	LB134659
	Chromium	50.0	<50.0	U	50.0	P	02/10/2025	15:07	LB134659
	Lead	60.0	<60.0	U	60.0	P	02/10/2025	15:07	LB134659
	Selenium	100	<100	U	100	P	02/10/2025	15:07	LB134659
	Silver	50.0	<50.0	U	50.0	P	02/10/2025	15:07	LB134659
Sample ID	**Analyte**	**Result (ug/L)**	**Acceptance Limit**	**Conc Qual**	**CRQL ug/L**	**M**	**Analysis Date**	**Analysis Time**	**Run**
PB166425BL		**WATER**		**Batch Number:**	**PB166425**		**Prep Date:**	**01/31/2025**	
	Arsenic	100	<100	U	100	P	02/10/2025	15:12	LB134659
	Barium	500	<500	U	500	P	02/10/2025	15:12	LB134659
	Cadmium	30.0	<30.0	U	30.0	P	02/10/2025	15:12	LB134659
	Chromium	10.5	<50.0	J	50.0	P	02/10/2025	15:12	LB134659
	Lead	60.0	<60.0	U	60.0	P	02/10/2025	15:12	LB134659
	Selenium	100	<100	U	100	P	02/10/2025	15:12	LB134659
	Silver	50.0	<50.0	U	50.0	P	02/10/2025	15:12	LB134659

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Metals
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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	1.27			-20	20	02/10/2025	14:35	LB134659
	Barium	1.84	6.0	31	-94	106	02/10/2025	14:35	LB134659
	Cadmium	3.51	1.0	351	-5	7	02/10/2025	14:35	LB134659
	Chromium	56.7	52.0	109	42	62	02/10/2025	14:35	LB134659
	Lead	8.37			-12	12	02/10/2025	14:35	LB134659
	Selenium	-6.12			-20	20	02/10/2025	14:35	LB134659
	Silver	2.79			-10	10	02/10/2025	14:35	LB134659
ICSAB01	Arsenic	106	104	102	88.4	120	02/10/2025	14:41	LB134659
	Barium	442	537	82	437	637	02/10/2025	14:41	LB134659
	Cadmium	963	972	99	826	1120	02/10/2025	14:41	LB134659
	Chromium	556	542	103	460	624	02/10/2025	14:41	LB134659
	Lead	55.7	49.0	114	37	61	02/10/2025	14:41	LB134659
	Selenium	44.9	46.0	98	26	66	02/10/2025	14:41	LB134659
	Silver	216	201	108	170	232	02/10/2025	14:41	LB134659

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1232

contract: RUTW01 **lab code:** CHEM **case no.:** Q1232 **sas no.:** Q1232

matrix: Water **sample id:** Q1235-08 **client id:** JPP-16.1-012925MS

Percent Solids for Sample: NA **Spiked ID:** Q1235-08MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3990		100	U	4000	100		P
Barium	ug/L	75 - 125	1220		333	J	1000	88		P
Cadmium	ug/L	75 - 125	916		30.0	U	1000	92		P
Chromium	ug/L	75 - 125	1920		9.60	J	2000	95		P
Lead	ug/L	75 - 125	4380		60.0	U	5000	88		P
Mercury	ug/L	75 - 125	44.2		2.00	U	40.0	110		CV
Selenium	ug/L	75 - 125	9960		100	U	10000	100		P
Silver	ug/L	75 - 125	363		50.0	U	380	96		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1232

contract: RUTW01 **lab code:** CHEM **case no.:** Q1232 **sas no.:** Q1232

matrix: Water **sample id:** Q1235-08 **client id:** JPP-16.1-012925MSD

Percent Solids for Sample: NA **Spiked ID:** Q1235-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3880		100	U	4000	97		P
Barium	ug/L	75 - 125	1260		333	J	1000	93		P
Cadmium	ug/L	75 - 125	904		30.0	U	1000	90		P
Chromium	ug/L	75 - 125	1920		9.60	J	2000	96		P
Lead	ug/L	75 - 125	4340		60.0	U	5000	87		P
Mercury	ug/L	75 - 125	41.2		2.00	U	40.0	103		CV
Selenium	ug/L	75 - 125	9640		100	U	10000	96		P
Silver	ug/L	75 - 125	360		50.0	U	380	95		P

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Metals
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Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Matrix: Water **Sample ID:** Q1235-08 **Client ID:** JPP-16.1-012925DUP

Percent Solids for Sample: NA **Duplicate ID** Q1235-08DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	333	J	330	J	1		P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	9.60	J	11.0	J	13		P
Lead	ug/L	20	60.0	U	60.0	U			P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Matrix: Water **Sample ID:** Q1235-08MS **Client ID:** JPP-16.1-012925MSD

Percent Solids for Sample: NA **Duplicate ID** Q1235-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	3990		3880		3		P
Barium	ug/L	20	1220		1260		3		P
Cadmium	ug/L	20	916		904		1		P
Chromium	ug/L	20	1920		1920		0		P
Lead	ug/L	20	4380		4340		1		P
Mercury	ug/L	20	44.2		41.2		7		CV
Selenium	ug/L	20	9960		9640		3		P
Silver	ug/L	20	363		360		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166425BS							
Arsenic	ug/L	4000	3710		93	80 - 120	P
Barium	ug/L	1000	885		88	80 - 120	P
Cadmium	ug/L	1000	964		96	80 - 120	P
Chromium	ug/L	2000	2000		100	80 - 120	P
Lead	ug/L	5000	4420		88	80 - 120	P
Selenium	ug/L	10000	9040		90	80 - 120	P
Silver	ug/L	380	350		92	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166487BS							
Mercury	ug/L	4.0	4.10		102	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-16.1-012925L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134659 **Lab Sample ID :** Q1235-08L **SDG No.:** Q1232

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	100	U	500	U			P
Barium	333	J	2500	U	100.0		P
Cadmium	30.0	U	150	U			P
Chromium	9.60	J	62.4	J	550		P
Lead	60.0	U	300	U			P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1232 **SAS No.:** Q1232

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1232 **SAS No.:** Q1232

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166425**						
PB166356TB	PB166356TB	MB	WATER	01/31/2025	5.0	25.0	
PB166425BL	PB166425BL	MB	WATER	01/31/2025	5.0	25.0	
PB166425BS	PB166425BS	LCS	WATER	01/31/2025	5.0	25.0	
Q1232-04	JPP-46.2-012925	SAM	WATER	01/31/2025	5.0	25.0	
Q1232-08	JPP-46.1-012925	SAM	WATER	01/31/2025	5.0	25.0	
Q1232-12	JPP-42.1-012925	SAM	WATER	01/31/2025	5.0	25.0	
Q1232-16	JPP-42.2-012925	SAM	WATER	01/31/2025	5.0	25.0	
Q1232-20	JPP-51.1-012925	SAM	WATER	01/31/2025	5.0	25.0	
Q1235-08DUP	JPP-16.1-012925DUP	DUP	WATER	01/31/2025	5.0	25.0	
Q1235-08MS	JPP-16.1-012925MS	MS	WATER	01/31/2025	5.0	25.0	
Q1235-08MSD	JPP-16.1-012925MSD	MSD	WATER	01/31/2025	5.0	25.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1232 **SAS No.:** Q1232

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166487**						
PB166356TB	PB166356TB	MB	WATER	02/03/2025	3.0	30.0	
PB166487BL	PB166487BL	MB	WATER	02/03/2025	30.0	30.0	
PB166487BS	PB166487BS	LCS	WATER	02/03/2025	30.0	30.0	
Q1232-04	JPP-46.2-012925	SAM	WATER	02/03/2025	3.0	30.0	
Q1232-08	JPP-46.1-012925	SAM	WATER	02/03/2025	3.0	30.0	
Q1232-12	JPP-42.1-012925	SAM	WATER	02/03/2025	3.0	30.0	
Q1232-16	JPP-42.2-012925	SAM	WATER	02/03/2025	3.0	30.0	
Q1232-20	JPP-51.1-012925	SAM	WATER	02/03/2025	3.0	30.0	
Q1235-08DUP	JPP-16.1-012925DUP	DUP	WATER	02/03/2025	3.0	30.0	
Q1235-08MS	JPP-16.1-012925MS	MS	WATER	02/03/2025	3.0	30.0	
Q1235-08MSD	JPP-16.1-012925MSD	MSD	WATER	02/03/2025	3.0	30.0	

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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1232 **Sas no.:** Q1232 **Sdg no.:** Q1232

Instrument id number: **Method:** **Run number:** LB134537

Start date: 02/03/2025 **End date:** 02/03/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1535	HG
S0.2	S0.2	1	1537	HG
S2.5	S2.5	1	1541	HG
S5	S5	1	1543	HG
S7.5	S7.5	1	1546	HG
S10	S10	1	1554	HG
ICV81	ICV81	1	1559	HG
ICB81	ICB81	1	1601	HG
CCV10	CCV10	1	1603	HG
CCB10	CCB10	1	1606	HG
CRA	CRA	1	1608	HG
PB166487BL	PB166487BL	1	1615	HG
PB166487BS	PB166487BS	1	1620	HG
CCV11	CCV11	1	1633	HG
CCB11	CCB11	1	1636	HG
Q1232-04	JPP-46.2-012925	1	1649	HG
Q1232-08	JPP-46.1-012925	1	1651	HG
Q1232-12	JPP-42.1-012925	1	1654	HG
Q1232-16	JPP-42.2-012925	1	1656	HG
Q1232-20	JPP-51.1-012925	1	1658	HG
CCV12	CCV12	1	1701	HG
CCB12	CCB12	1	1703	HG
Q1235-08DUP	JPP-16.1-012925DUP	1	1710	HG
Q1235-08MS	JPP-16.1-012925MS	1	1712	HG
Q1235-08MSD	JPP-16.1-012925MSD	1	1714	HG
PB166356TB	PB166356TB	1	1716	HG
Q1235-08L	JPP-16.1-012925L	5	1719	HG
CCV13	CCV13	1	1723	HG
CCB13	CCB13	1	1726	HG

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1232 **Sas no.:** Q1232 **Sdg no.:** Q1232

Instrument id number: **Method:** **Run number:** LB134659

Start date: 02/10/2025 **End date:** 02/10/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1328	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1332	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1336	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1340	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1344	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1349	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1406	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1420	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1426	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1431	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1435	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1441	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1459	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1503	Ag,As,Ba,Cd,Cr,Pb,Se
PB166356TB	PB166356TB	1	1507	Ag,As,Ba,Cd,Cr,Pb,Se
PB166425BL	PB166425BL	1	1512	Ag,As,Ba,Cd,Cr,Pb,Se
PB166425BS	PB166425BS	1	1516	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1605	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1608	Ag,As,Ba,Cd,Cr,Pb,Se
Q1232-04	JPP-46.2-012925	1	1613	Ag,As,Ba,Cd,Cr,Pb,Se
Q1232-08	JPP-46.1-012925	1	1617	Ag,As,Ba,Cd,Cr,Pb,Se
Q1232-12	JPP-42.1-012925	1	1622	Ag,As,Ba,Cd,Cr,Pb,Se
Q1232-16	JPP-42.2-012925	1	1626	Ag,As,Ba,Cd,Cr,Pb,Se
Q1232-20	JPP-51.1-012925	1	1630	Ag,As,Ba,Cd,Cr,Pb,Se
Q1235-08DUP	JPP-16.1-012925DUP	1	1644	Ag,As,Ba,Cd,Cr,Pb,Se
Q1235-08L	JPP-16.1-012925L	5	1648	Ag,As,Ba,Cd,Cr,Pb,Se
Q1235-08MS	JPP-16.1-012925MS	1	1652	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1657	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1706	Ag,As,Ba,Cd,Cr,Pb,Se
Q1235-08MSD	JPP-16.1-012925MSD	1	1711	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1753	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1800	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1848	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1852	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1940	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1945	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	2036	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	2041	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	2102	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	2106	Ag,As,Ba,Cd,Cr,Pb,Se

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LAB CHRONICLE

OrderID:	Q1232	**OrderDate:**	1/30/2025 11:55:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1232-03	**JPP-46.2-012925**	**SOIL**			**01/29/25 09:05**			**01/30/25**
			Paint Filter	9095B			02/04/25 08:25	
Q1232-04	**JPP-46.2-012925**	**SOIL**			**01/29/25 09:05**			**01/30/25**
			Corrosivity	9045D			01/30/25 15:20	
			Ignitability	1030			01/31/25 11:15	
			Reactive Cyanide	9012B		02/03/25	02/03/25 11:01	
			Reactive Sulfide	9034		01/31/25	01/31/25 14:48	
Q1232-07	**JPP-46.1-012925**	**SOIL**			**01/29/25 10:18**			**01/30/25**
			Paint Filter	9095B			02/04/25 08:40	
Q1232-08	**JPP-46.1-012925**	**SOIL**			**01/29/25 10:18**			**01/30/25**
			Corrosivity	9045D			01/30/25 15:25	
			Ignitability	1030			01/31/25 11:22	
			Reactive Cyanide	9012B		02/03/25	02/03/25 11:08	
			Reactive Sulfide	9034		01/31/25	01/31/25 14:52	

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LAB CHRONICLE

Q1232-11	**JPP-42.1-012925**	**SOIL**			**01/29/25 11:30**		**01/30/25**
			Paint Filter	9095B		02/04/25 08:47	
Q1232-12	**JPP-42.1-012925**	**SOIL**			**01/29/25 11:30**		**01/30/25**
			Corrosivity	9045D		01/30/25 15:30	
			Ignitability	1030		01/31/25 11:30	
			Reactive Cyanide	9012B	02/03/25	02/03/25 11:08	
			Reactive Sulfide	9034	01/31/25	01/31/25 14:55	
Q1232-15	**JPP-42.2-012925**	**SOIL**			**01/29/25 12:30**		**01/30/25**
			Paint Filter	9095B		02/04/25 08:55	
Q1232-16	**JPP-42.2-012925**	**SOIL**			**01/29/25 12:30**		**01/30/25**
			Corrosivity	9045D		01/30/25 15:37	
			Ignitability	1030		01/31/25 11:38	
			Reactive Cyanide	9012B	02/03/25	02/03/25 11:08	
			Reactive Sulfide	9034	01/31/25	01/31/25 14:57	
Q1232-19	**JPP-51.1-012925**	**SOIL**			**01/29/25 14:20**		**01/30/25**
			Paint Filter	9095B		02/04/25 09:02	
Q1232-20	**JPP-51.1-012925**	**SOIL**			**01/29/25 14:20**		**01/30/25**
			Corrosivity	9045D		01/30/25 15:40	

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LAB CHRONICLE

Ignitability	1030		01/31/25 11:45
Reactive Cyanide	9012B	02/03/25	02/03/25 11:08
Reactive Sulfide	9034	01/31/25	01/31/25 15:00

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 09:05
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-03	Matrix:	SOIL
		% Solid:	89.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 08:25	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 09:05
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-04	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	7.12	H	1	0	0	pH		01/30/25 15:20	9045D
Ignitability	NO		1	0	0	oC		01/31/25 11:15	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:01	9012B
Reactive Sulfide	1.58	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 14:48	9034

Comments: pH result reported at temperature 20.3 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 10:18
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-07	Matrix:	SOIL
		% Solid:	94

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 08:40	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 10:18
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-08	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	10.5	H	1	0	0	pH		01/30/25 15:25	9045D
Ignitability	NO		1	0	0	oC		01/31/25 11:22	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:08	9012B
Reactive Sulfide	6.35	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 14:52	9034

Comments: pH result reported at temperature 20.5 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 11:30
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-11	Matrix:	SOIL
		% Solid:	88.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 08:47	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 11:30
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-12	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	11.3	H	1	0	0	pH		01/30/25 15:30	9045D
Ignitability	NO		1	0	0	oC		01/31/25 11:30	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:08	9012B
Reactive Sulfide	3.19	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 14:55	9034

Comments: pH result reported at temperature 20.4 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 12:30
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-15	Matrix:	SOIL
		% Solid:	93.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 08:55	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 12:30
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-42.2-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-16	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	10.9	H	1	0	0	pH		01/30/25 15:37	9045D
Ignitability	NO		1	0	0	oC		01/31/25 11:38	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:08	9012B
Reactive Sulfide	3.17	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 14:57	9034

Comments: pH result reported at temperature 20.3 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 14:20
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-19	Matrix:	SOIL
		% Solid:	95.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:02	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25 14:20
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.1-012925	SDG No.:	Q1232
Lab Sample ID:	Q1232-20	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	9.11	H	1	0	0	pH		01/30/25 15:40	9045D
Ignitability	NO		1	0	0	oC		01/31/25 11:45	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:08	9012B
Reactive Sulfide	6.35	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:00	9034

Comments: pH result reported at temperature 20.5 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **RunNo.:** LB134491

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Corrosivity		pH	7.01	7	100	90-110	01/30/2025
Sample ID:	CCV1						
Corrosivity		pH	2.01	2.00	101	90-110	01/30/2025
Sample ID:	CCV2						
Corrosivity		pH	12.02	12.00	100	90-110	01/30/2025
Sample ID:	CCV3						
Corrosivity		pH	2.01	2.00	101	90-110	01/30/2025
Sample ID:	CCV4						
Corrosivity		pH	12.02	12.00	100	90-110	01/30/2025

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Initial and Continuing Calibration Verification

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1232
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134524

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.097	0.099	98	85-115	02/03/2025
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	02/03/2025
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	02/03/2025
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	02/03/2025

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Initial and Continuing Calibration Blank Summary

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1232
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134524

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025

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Preparation Blank Summary

Client: RU2 Engineering, LLC **SDG No.:** Q1232

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB166422BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	01/31/2025
Sample ID: PB166486BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	02/03/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1232
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1215-04
Client ID: JPP-29.1-012825DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Corrosivity	pH	+/-20	8.23		8.24		1	0.12		01/30/2025
Ignitability	oC	+/-20	NO		NO		1	0		01/31/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1232
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1232-03
Client ID: JPP-46.2-012925DUP
Percent Solids for Spike Sample: 89.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		02/04/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1232
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1232-04
Client ID: JPP-46.2-012925DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Reactive Sulfide	mg/Kg	+/-20	1.58	J	1.58	J	1	0		01/31/2025
Reactive Cyanide	mg/Kg	+/-20	0.0087	U	0.0088	U	1	0		02/03/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1232
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1239-11
Client ID: 357DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Corrosivity	pH	+/-20	8.03		8.04		1	0.12		01/30/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1232
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1242-04
Client ID: JPP-6.2-013025DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		01/31/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1232
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1281-01
Client ID: OR-02--2-03-2025DUP
Percent Solids for Spike Sample: 86.7

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		02/04/2025

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Q1232
QUOTE NO.
COC Number 2041691

18
18.1

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: RU2 Engineering LLC
ADDRESS: 2 Melinda Drive
Monroe Twp, NJ 08831
CITY: STATE: ZIP:
ATTENTION: Ruty Manani
PHONE: 609-409-4564 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: SANDTWOBR BMCR Project
PROJECT NO.: LOCATION: Brooklyn, NYC
PROJECT MANAGER: Ruty Manani
e-mail: Rmanani@Ru2eng.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Same as company address PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard 10 days DAYS*
HARDCOPY (DATA PACKAGE): Standard 10 days DAYS*
EDD: Standard 10 days DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced
- ☐ NYS ASP A
- ☒ NYS ASP B
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1 TCL VOC+TICs MTBE/TBA
2 TCL VOCs
3 TPH GRO-DRO
4 TCL SVOCs+TICs
5 TAL Metals
6 Pesticides, PCBs
7 RCRA characteristics
8 Paint filter
9 full TCLP

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9
1.	JPP-46.2-012925	Soil		G	01/29/25	9:00	3	X	X	X						
2.	JPP-46.2-012925	Soil	C		1/29/25	9:05	8			X	X	X	X	X	X	X
3.	JPP-46.1-012925	Soil		G	1/29/25	10:10	3	X	X	X						
4.	JPP-46.1-012925	Soil	C		1/29/25	10:18	8			X	X	X	X	X	X	X
5.	JPP-42.1-012925	Soil		G	1/29/25	11:24	3	X	X	X						
6.	JPP-42.1-012925	Soil	C		1/29/25	11:30	8			X	X	X	X	X	X	X
7.	JPP-42.2-012925	Soil		G	1/29/25	12:24	3	X	X	X						
8.	JPP-42.2-012925	Soil	C		1/29/25	12:30	8			X	X	X	X	X	X	X
9.	JPP-51.1-012925	Soil		G	1/29/25	14:14	3	X	X	X						
10.	JPP-51.1-012925	Soil	C		1/29/25	14:20	8			X	X	X	X	X	X	X

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

	DATE/TIME	RECEIVED BY
1. RELINQUISHED BY SAMPLER: RA	1/30/2025	1. 1045 1-30-25
2. RELINQUISHED BY SAMPLER:	DATE/TIME:	2. RECEIVED BY:
3. RELINQUISHED BY SAMPLER:	DATE/TIME: 1152 1-30-25	3. RECEIVED BY:

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.1 °C
Comments: Preserve extra Sample Jar if additional analysis is required.

Page 1 of 2

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO

Copyright © 2025

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1232 RUTW01
Client Name : RU2 Engineering, LLC
Client Contact : Rutu Manani
Invoice Name : RU2 Engineering, LLC
Invoice Contact : Rutu Manani

Order Date : 1/30/2025 11:55:00 AM
Project Name : NYCDDC SANTWOBR Bi
Receive DateTime : 1/30/2025 11:52:00 AM
Purchase Order :

Project Mgr : Kiran
Report Type : NYS ASP B
EDD Type : Excel NY
Hard Copy Date :
Date Signoff : 1/30/2025 1:25:39 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1232-01	JPP-46.2-012925	Solid	01/29/2025	09:00					
					VOCMS Group1		8260D		10 Bus. Days
Q1232-05	JPP-46.1-012925	Solid	01/29/2025	10:10					
					VOCMS Group1		8260D		10 Bus. Days
Q1232-09	JPP-42.1-012925	Solid	01/29/2025	11:24					
					VOCMS Group1		8260D		10 Bus. Days
Q1232-13	JPP-42.2-012925	Solid	01/29/2025	12:24					
					VOCMS Group1		8260D		10 Bus. Days
Q1232-17	JPP-51.1-012925	Solid	01/29/2025	14:14					
					VOCMS Group1		8260D		10 Bus. Days

Relinguished By :
Date / Time : 1130 25 1700

Received By :
Date / Time : 1.30.25 17:00

Storage Area : VOA Refridgerator Room

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1232 RUTW01
Client Name : RU2 Engineering, LLC
Client Contact : Rutu Manani
Invoice Name : RU2 Engineering, LLC
Invoice Contact : Rutu Manani

Order Date : 1/30/2025 11:55:00 AM
Project Name : NYCDDC SANTWOBR Bı
Receive DateTime : 1/30/2025 11:52:00 AM
Purchase Order :

Project Mgr : Kiran
Report Type : NYS ASP B
EDD Type : Excel NY
Hard Copy Date :
Date Signoff : 1/30/2025 1:25:39 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1232-01	JPP-46.2-012925	Solid	01/29/2025	09:00					
					Gasoline Range Organics		8015D		10 Bus. Days
Q1232-05	JPP-46.1-012925	Solid	01/29/2025	10:10					
					Gasoline Range Organics		8015D		10 Bus. Days
Q1232-09	JPP-42.1-012925	Solid	01/29/2025	11:24					
					Gasoline Range Organics		8015D		10 Bus. Days
Q1232-13	JPP-42.2-012925	Solid	01/29/2025	12:24					
					Gasoline Range Organics		8015D		10 Bus. Days
Q1232-17	JPP-51.1-012925	Solid	01/29/2025	14:14					
					Gasoline Range Organics		8015D		10 Bus. Days

Relinguished By :
Date / Time : 1/30/25 1700

Received By :
Date / Time : 1-30-25 17:00

Storage Area : VOA Refridgerator Room