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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 : Q1216

ATTENTION : Rutu Manani

Laboratory Certification ID # 20012

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
JPP-18.1-012825	Q1216-01	8260D			8015D		Chemtech -SOP
JPP-18.1-012825	Q1216-02	8260D			8015D		Chemtech -SOP
JPP-18.1-012825	Q1216-03	8260D	8270E		8015D, 8081B, 8082A	6010D, 7471B	Chemtech -SOP, 9095B
JPP-18.1-012825	Q1216-04	8260D	8270E		8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.1-012825	Q1216-05	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.1-012825	Q1216-06	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.1-012825	Q1216-07	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.1-012825	Q1216-08	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.2-012825	Q1216-09	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.2-012825	Q1216-10	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.2-012825	Q1216-11	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-21.2-012825	Q1216-12	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.1-012825	Q1216-13	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.1-012825	Q1216-14	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.1-012825	Q1216-15	8260D	8270E		8151A 8015D, 8081B, 8082A,	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.1-012825	Q1216-16	8260D	8270E		8151A 8015D, 8081B, 8082A, 8151A	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
JPP-26.2-012825	Q1216-17	8260D	8270E		8015D, 8081B, 8082A, 8151A	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.2-012825	Q1216-18	8260D	8270E		8015D, 8081B, 8082A, 8151A	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.2-012825	Q1216-19	8260D	8270E		8015D, 8081B, 8082A, 8151A	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D
JPP-26.2-012825	Q1216-20	8260D	8270E		8015D, 8081B, 8082A, 8151A	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-03	SOIL	01/28/25	01/29/25	01/30/25	02/07/25
Q1216-07	SOIL	01/28/25	01/29/25	01/30/25	02/07/25
Q1216-11	SOIL	01/28/25	01/29/25	01/30/25	02/04/25
Q1216-15	SOIL	01/28/25	01/29/25	01/30/25	02/07/25
Q1216-19	SOIL	01/28/25	01/29/25	01/30/25	02/04/25

*** Details For Test :** SVOC-TCL BNA -20

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-04	TCLP	01/28/25	01/29/25	01/31/25	02/06/25
Q1216-08	TCLP	01/28/25	01/29/25	01/31/25	02/04/25
Q1216-12	TCLP	01/28/25	01/29/25	01/31/25	02/03/25
Q1216-16	TCLP	01/28/25	01/29/25	01/31/25	02/03/25
Q1216-20	TCLP	01/28/25	01/29/25	01/31/25	02/03/25

*** Details For Test :** TCLP BNA

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-02	TCLP	01/28/25	01/29/25		02/03/25
Q1216-06	TCLP	01/28/25	01/29/25		02/03/25
Q1216-10	TCLP	01/28/25	01/29/25		02/03/25
Q1216-14	TCLP	01/28/25	01/29/25		02/03/25
Q1216-18	TCLP	01/28/25	01/29/25		02/03/25

*** Details For Test :** TCLP VOA

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-01	SOIL	01/28/25	01/29/25		02/04/25
Q1216-05	SOIL	01/28/25	01/29/25		02/03/25
Q1216-09	SOIL	01/28/25	01/29/25		02/04/25
Q1216-13	SOIL	01/28/25	01/29/25		02/04/25
Q1216-17	SOIL	01/28/25	01/29/25		02/03/25

*** Details For Test :** VOCMS Group1

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-01	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-05	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-09	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-13	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-17	SOIL	01/28/25	01/29/25	01/30/25	01/30/25

*** Details For Test :** Diesel Range Organics

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-01	SOIL	01/28/25	01/29/25		01/30/25
Q1216-05	SOIL	01/28/25	01/29/25		01/30/25
Q1216-09	SOIL	01/28/25	01/29/25		01/30/25
Q1216-13	SOIL	01/28/25	01/29/25		01/30/25
Q1216-17	SOIL	01/28/25	01/29/25		01/30/25

*** Details For Test :** Gasoline Range Organics

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FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-03	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-07	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-11	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-15	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-19	SOIL	01/28/25	01/29/25	01/30/25	01/30/25

*** Details For Test :** PCB

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-03	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-07	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-11	SOIL	01/28/25	01/29/25	01/30/25	01/30/25
Q1216-15	SOIL	01/28/25	01/29/25	01/30/25	02/03/25
Q1216-19	SOIL	01/28/25	01/29/25	01/30/25	01/30/25

*** Details For Test :** Pesticide-TCL

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FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-04	TCLP	01/28/25	01/29/25	01/31/25	02/01/25
Q1216-08	TCLP	01/28/25	01/29/25	01/31/25	02/01/25
Q1216-12	TCLP	01/28/25	01/29/25	01/31/25	02/01/25
Q1216-16	TCLP	01/28/25	01/29/25	01/31/25	02/01/25
Q1216-20	TCLP	01/28/25	01/29/25	01/31/25	02/01/25

*** Details For Test :** TCLP Herbicide

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1216-04	TCLP	01/28/25	01/29/25	01/31/25	02/03/25
Q1216-08	TCLP	01/28/25	01/29/25	01/31/25	02/03/25
Q1216-12	TCLP	01/28/25	01/29/25	01/31/25	02/03/25
Q1216-16	TCLP	01/28/25	01/29/25	01/31/25	02/03/25
Q1216-20	TCLP	01/28/25	01/29/25	01/31/25	02/03/25

*** Details For Test :** TCLP Pesticide

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-01	Solid	8260D	5035		
Q1216-02	Solid	8260D	1311_ZHE		
Q1216-05	Solid	8260D	5035		
Q1216-06	Solid	8260D	1311_ZHE		
Q1216-09	Solid	8260D	5035		
Q1216-10	Solid	8260D	1311_ZHE		
Q1216-13	Solid	8260D	5035		
Q1216-14	Solid	8260D	1311_ZHE		
Q1216-17	Solid	8260D	5035		
Q1216-18	Solid	8260D	1311_ZHE		

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-03	Solid	8270E	3550		
Q1216-04	Solid	8270E			
Q1216-07	Solid	8270E	3550		
Q1216-08	Solid	8270E			
Q1216-11	Solid	8270E	3550		
Q1216-12	Solid	8270E			
Q1216-15	Solid	8270E	3550		
Q1216-16	Solid	8270E			
Q1216-19	Solid	8270E	3550		
Q1216-20	Solid	8270E			

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-01	Solid	8015D	3541		
Q1216-01	Solid	8015D	NA		
Q1216-03	Solid	8081B	3541		
Q1216-03	Solid	8082A	3541		
Q1216-04	Solid	8081B			
Q1216-04	Solid	8151A			
Q1216-05	Solid	8015D	3541		
Q1216-05	Solid	8015D	NA		
Q1216-07	Solid	8081B	3541		
Q1216-07	Solid	8082A	3541		
Q1216-08	Solid	8081B			
Q1216-08	Solid	8151A			
Q1216-09	Solid	8015D	3541		
Q1216-09	Solid	8015D	NA		
Q1216-11	Solid	8081B	3541		
Q1216-11	Solid	8082A	3541		
Q1216-12	Solid	8081B			
Q1216-12	Solid	8151A			
Q1216-13	Solid	8015D	3541		
Q1216-13	Solid	8015D	NA		
Q1216-15	Solid	8081B	3541		
Q1216-15	Solid	8082A	3541		
Q1216-16	Solid	8081B			
Q1216-16	Solid	8151A			
Q1216-17	Solid	8015D	3541		
Q1216-17	Solid	8015D	NA		
Q1216-19	Solid	8081B	3541		
Q1216-19	Solid	8082A	3541		
Q1216-20	Solid	8081B			
Q1216-20	Solid	8151A			

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-03	SOIL	Mercury	01/29/25	01/30/25	01/31/25
Q1216-07	SOIL	Mercury	01/29/25	01/30/25	01/31/25
Q1216-11	SOIL	Mercury	01/29/25	01/30/25	01/31/25
Q1216-15	SOIL	Mercury	01/29/25	01/30/25	01/31/25
Q1216-19	SOIL	Mercury	01/29/25	01/30/25	01/31/25

*** Details For Test :** Mercury

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-03	SOIL	Metals ICP-TAL	01/29/25	01/30/25	01/30/25
Q1216-07	SOIL	Metals ICP-TAL	01/29/25	01/30/25	01/30/25
Q1216-11	SOIL	Metals ICP-TAL	01/29/25	01/30/25	01/30/25
Q1216-15	SOIL	Metals ICP-TAL	01/29/25	01/30/25	01/30/25
Q1216-19	SOIL	Metals ICP-TAL	01/29/25	01/30/25	01/30/25

*** Details For Test :** Metals ICP-TAL

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-04	TCLP	TCLP ICP Metals	01/29/25	01/31/25	02/10/25
Q1216-08	TCLP	TCLP ICP Metals	01/29/25	01/31/25	02/10/25
Q1216-12	TCLP	TCLP ICP Metals	01/29/25	01/31/25	02/10/25
Q1216-16	TCLP	TCLP ICP Metals	01/29/25	01/31/25	02/10/25
Q1216-20	TCLP	TCLP ICP Metals	01/29/25	01/31/25	02/10/25

*** Details For Test :** TCLP ICP Metals

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1216-04	TCLP	TCLP Mercury	01/29/25	02/03/25	02/03/25
Q1216-08	TCLP	TCLP Mercury	01/29/25	02/03/25	02/03/25
Q1216-12	TCLP	TCLP Mercury	01/29/25	02/03/25	02/03/25
Q1216-16	TCLP	TCLP Mercury	01/29/25	02/03/25	02/03/25
Q1216-20	TCLP	TCLP Mercury	01/29/25	02/03/25	02/03/25

*** Details For Test :** TCLP Mercury

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Cover Page

Order ID : Q1216

Project ID : NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Client : RU2 Engineering, LLC

Lab Sample Number	Client Sample Number
Q1216-01	JPP-18.1-012825
Q1216-02	JPP-18.1-012825
Q1216-03	JPP-18.1-012825
Q1216-04	JPP-18.1-012825
Q1216-05	JPP-21.1-012825
Q1216-06	JPP-21.1-012825
Q1216-07	JPP-21.1-012825
Q1216-08	JPP-21.1-012825
Q1216-09	JPP-21.2-012825
Q1216-10	JPP-21.2-012825
Q1216-11	JPP-21.2-012825
Q1216-12	JPP-21.2-012825
Q1216-13	JPP-26.1-012825
Q1216-14	JPP-26.1-012825
Q1216-15	JPP-26.1-012825
Q1216-16	JPP-26.1-012825
Q1216-17	JPP-26.2-012825
Q1216-18	JPP-26.2-012825
Q1216-19	JPP-26.2-012825
Q1216-20	JPP-26.2-012825

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 # Q1216
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 except for JPP-21.1-012825 and JPP-26.2-012825,samples were Initially analyzed in sequence VY013025 but Method was failing therefore samples reanalyzed but now Internal Standard Failing so Internal standard failure run reported in Hardcopy and Initial run Provided in MISC Section.

The Retention Times were acceptable for all samples.

The RPD for {VY0203SBSD01} with File ID: VY021030.D met criteria except for 2-Butanone[22%], 2-Hexanone[25%], 4-Methyl-2-Pentanone[23%], Methyl Acetate[23%] and Tert butyl alcohol[26%] 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.

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The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:
Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.
Trip Blank was not provided with this set of samples.
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 # Q1216
Test Name: TCLP VOA

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 except for JPP-26.1-012825 [4-Bromofluorobenzene - 76%] failing marginally low now no more vials for confirmation therefore no corrective action taken.

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.

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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.
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 # Q1216
Test Name: Gasoline Range Organics

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .

The RPD for {Q1216-17MSD} with File ID: FB031402.D met criteria except for GRO[25%] due to difference in results of MS-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 .

Samples JPP-21.1-012825, JPP-21.2-012825, JPP-26.1-012825 and JPP-26.2-012825 were directly run in methanol as both low level soil vials did not purge.

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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 # Q1216
Test Name: SVOC-TCL BNA -20

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 df The analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements except for JPP-21.2-012825, due to matrix interference, and JPP-26.1-012825, The sample was reanalyzed to confirm internal standard failure, both run were reported in hard copy. reanalyzed with the required dilution.

The Retention Times were acceptable for all samples.

The MS {Q1215-03MS} with File ID: BF141573.D recoveries met the requirements for all compounds except for Atrazine[132%], Benzaldehyde[116%], due to Matrix interference therefore no corrective action was taken.

The MSD {Q1215-03MSD} with File ID: BF141574.D recoveries met the acceptable requirements except for Benzaldehyde[116%], due to Matrix interference therefore no corrective action was taken.

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The RPD met criteria .
The Blank Spike for {PB166360BS} with File ID: BF141405.D met requirements for all samples except for 3,3-Dichlorobenzidine[41%], Hexachlorocyclopentadiene[191%], The associate samples have no positive hit for these compounds therefore no corrective action was taken.

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

The Continuous Calibration File ID BF141531.D met the requirements except for Di-n-octyl phthalate, The associate samples have no positive hit for these compounds therefore no corrective action was taken.

The Tuning criteria met requirements.

Samples JPP-21.2-012825, JPP-26.2-012825 analyzed with direct 2x dilution due to dirty and viscous matrix.

Sample JPP-26.1-012825 was diluted due to high concentration.

E. Additional Comments:
The Sample JPP-21.2-012825, JPP-26.1-012825, JPP-26.1-012825DL, JPP-26.2-012825 have the concentration of target compound below method detection limits; therefore it is not reported as Hit in Form1.
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 # Q1216
Test Name: TCLP BNA

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 dfThe 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 , Associated samples does not have hit for this compound, no corrective action was required.
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 <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 # Q1216
Test Name: Pesticide-TCL

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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-26.1-012825 [Decachlorobiphenyl(2) - 169%], as per method one surrogate is allowed to failed, therefore no corrective action was 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 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 PL093919.D met the requirements except for 4,4-DDD is failing in both column but no positive hit in associated sample therefore no corrective action taken.

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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 # Q1216
Test Name: TCLP Pesticide

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 # Q1216
Test Name: PCB

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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 PO109288.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 PO109302.D met the requirements except for Aroclor-1260(Peak-04),Aroclor-1260(Peak-05),Decachlorobiphenyl is failing in 1st column but passing in 2nd column therefore no corrective action taken.

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 # Q1216
Test Name: TCLP Herbicide

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1216
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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_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 except for JPP-26.1-012825 [Tetracosane-d50 - 168%] but this sample was required dilution as well due to high concentration, therefore no further corrective action taken.

The Retention Times were acceptable for all samples.

The MS {Q1215-01MS} with File ID: FG015260.D recoveries met the requirements for all compounds except for DRO[-143%] Due to matrix interference.
The MSD {Q1215-01MSD} with File ID: FG015261.D recoveries met the acceptable requirements except for DRO[-126%] .

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-18.1-012825, JPP-21.1-012825, JPP-21.2-012825, JPP-26.1-012825 and JPP-26.2-012825 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.

Signature_____

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

CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1216
Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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-26.2-012825 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 (CHESTNUT-CONCRETEMS) analysis met criteria for all samples except for Antimony, Barium, Chromium, Cobalt, Copper, Potassium, Sodium, Vanadium, Zinc due to Chemical Interference during Digestion process.
The Matrix Spike Duplicate (CHESTNUT-CONCRETEMSD) analysis met criteria for all samples except for Antimony, Barium, Chromium, Potassium, Sodium, Vanadium, Zinc 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 criteria for all samples.

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.

Signature_____

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1216
Test Name: TCLP Mercury,TCLP ICP Metals

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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.

Signature_____

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1216
Test Name: Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/29/2025.

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-18.1-012825 of Corrosivity, for JPP-21.1-012825 of Corrosivity.for JPP-21.2-012825 of Corrosivity.for JPP-26.1-012825 of Corrosivity.for JPP-26.2-012825 of Corrosivity as these sample 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.

Signature_____

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Tel. 908-789-8900 Fax: 908-789-8922

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 #: Q1216

	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

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LAB CHRONICLE

OrderID:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/04/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/03/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/04/25	
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/04/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:								

0

Total Voc :

Total Concentration:

SAMPLE DATA

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.2
Sample Wt/Vol:	5.1 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
VY021053.D	1		02/04/25 13:06	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	6.00	U	2.00	6.00	ug/Kg
74-87-3	Chloromethane	6.00	U	1.40	6.00	ug/Kg
75-01-4	Vinyl Chloride	6.00	U	0.93	6.00	ug/Kg
74-83-9	Bromomethane	6.00	U	1.20	6.00	ug/Kg
75-00-3	Chloroethane	6.00	U	1.20	6.00	ug/Kg
75-69-4	Trichlorofluoromethane	6.00	U	1.10	6.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	6.00	U	1.30	6.00	ug/Kg
75-65-0	Tert butyl alcohol	30.2	U	18.8	30.2	ug/Kg
75-35-4	1,1-Dichloroethene	6.00	U	0.94	6.00	ug/Kg
67-64-1	Acetone	30.2	U	7.50	30.2	ug/Kg
75-15-0	Carbon Disulfide	6.00	U	1.50	6.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	6.00	U	0.81	6.00	ug/Kg
79-20-9	Methyl Acetate	6.00	U	2.20	6.00	ug/Kg
75-09-2	Methylene Chloride	12.1	U	4.10	12.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	6.00	U	1.00	6.00	ug/Kg
75-34-3	1,1-Dichloroethane	6.00	U	0.76	6.00	ug/Kg
110-82-7	Cyclohexane	6.00	U	0.83	6.00	ug/Kg
78-93-3	2-Butanone	30.2	U	6.90	30.2	ug/Kg
56-23-5	Carbon Tetrachloride	6.00	U	1.10	6.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	6.00	U	0.74	6.00	ug/Kg
74-97-5	Bromochloromethane	6.00	U	2.90	6.00	ug/Kg
67-66-3	Chloroform	6.00	U	0.81	6.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	6.00	U	0.94	6.00	ug/Kg
108-87-2	Methylcyclohexane	6.00	U	1.10	6.00	ug/Kg
71-43-2	Benzene	6.00	U	0.87	6.00	ug/Kg
107-06-2	1,2-Dichloroethane	6.00	U	0.74	6.00	ug/Kg
79-01-6	Trichloroethene	6.00	U	0.91	6.00	ug/Kg
78-87-5	1,2-Dichloropropane	6.00	U	0.80	6.00	ug/Kg
75-27-4	Bromodichloromethane	6.00	U	0.68	6.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	30.2	U	5.30	30.2	ug/Kg

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.2
Sample Wt/Vol:	5.1 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
VY021053.D	1		02/04/25 13:06	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	6.00	U	0.81	6.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	6.00	U	0.72	6.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	6.00	U	0.69	6.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	6.00	U	1.00	6.00	ug/Kg
591-78-6	2-Hexanone	30.2	U	5.80	30.2	ug/Kg
124-48-1	Dibromochloromethane	6.00	U	0.78	6.00	ug/Kg
106-93-4	1,2-Dibromoethane	6.00	U	0.95	6.00	ug/Kg
127-18-4	Tetrachloroethene	6.00	U	1.10	6.00	ug/Kg
108-90-7	Chlorobenzene	6.00	U	0.89	6.00	ug/Kg
100-41-4	Ethyl Benzene	6.00	U	0.75	6.00	ug/Kg
179601-23-1	m/p-Xylenes	12.1	U	1.60	12.1	ug/Kg
95-47-6	o-Xylene	6.00	U	0.85	6.00	ug/Kg
100-42-5	Styrene	6.00	U	0.72	6.00	ug/Kg
75-25-2	Bromoform	6.00	U	0.98	6.00	ug/Kg
98-82-8	Isopropylbenzene	6.00	U	0.81	6.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	6.00	U	1.30	6.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	6.00	U	0.89	6.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	6.00	U	0.97	6.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	6.00	U	0.71	6.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	6.00	U	1.90	6.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	6.00	U	0.95	6.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	6.00	U	0.94	6.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.4		50 - 163	111%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	49.7		58 - 134	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.6		29 - 146	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	91500	7.707			
540-36-3	1,4-Difluorobenzene	159000	8.616			
3114-55-4	Chlorobenzene-d5	140000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	53600	13.346			

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.2
Sample Wt/Vol:	5.1 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
VY021053.D	1		02/04/25 13:06	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.4
Sample Wt/Vol:	5.07 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
VY021035.D	1		02/03/25 17:24	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.40	U	1.80	5.40	ug/Kg
74-87-3	Chloromethane	5.40	U	1.30	5.40	ug/Kg
75-01-4	Vinyl Chloride	5.40	U	0.83	5.40	ug/Kg
74-83-9	Bromomethane	5.40	U	1.10	5.40	ug/Kg
75-00-3	Chloroethane	5.40	U	1.10	5.40	ug/Kg
75-69-4	Trichlorofluoromethane	5.40	U	0.98	5.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.40	U	1.20	5.40	ug/Kg
75-65-0	Tert butyl alcohol	27.0	U	16.8	27.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.40	U	0.84	5.40	ug/Kg
67-64-1	Acetone	27.0	U	6.70	27.0	ug/Kg
75-15-0	Carbon Disulfide	5.40	U	1.40	5.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.40	U	0.72	5.40	ug/Kg
79-20-9	Methyl Acetate	5.40	U	1.90	5.40	ug/Kg
75-09-2	Methylene Chloride	10.8	U	3.70	10.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.40	U	0.91	5.40	ug/Kg
75-34-3	1,1-Dichloroethane	5.40	U	0.68	5.40	ug/Kg
110-82-7	Cyclohexane	5.40	U	0.74	5.40	ug/Kg
78-93-3	2-Butanone	27.0	U	6.10	27.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.40	U	0.94	5.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.40	U	0.66	5.40	ug/Kg
74-97-5	Bromochloromethane	5.40	U	2.60	5.40	ug/Kg
67-66-3	Chloroform	5.40	U	0.72	5.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.40	U	0.84	5.40	ug/Kg
108-87-2	Methylcyclohexane	5.40	U	0.94	5.40	ug/Kg
71-43-2	Benzene	5.40	U	0.78	5.40	ug/Kg
107-06-2	1,2-Dichloroethane	5.40	U	0.66	5.40	ug/Kg
79-01-6	Trichloroethene	5.40	U	0.81	5.40	ug/Kg
78-87-5	1,2-Dichloropropane	5.40	U	0.71	5.40	ug/Kg
75-27-4	Bromodichloromethane	5.40	U	0.60	5.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	27.0	U	4.70	27.0	ug/Kg

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.4
Sample Wt/Vol:	5.07 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
VY021035.D	1		02/03/25 17:24	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.40	U	0.72	5.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.40	U	0.65	5.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.40	U	0.62	5.40	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.40	U	0.91	5.40	ug/Kg
591-78-6	2-Hexanone	27.0	U	5.20	27.0	ug/Kg
124-48-1	Dibromochloromethane	5.40	U	0.70	5.40	ug/Kg
106-93-4	1,2-Dibromoethane	5.40	U	0.85	5.40	ug/Kg
127-18-4	Tetrachloroethene	5.40	U	0.96	5.40	ug/Kg
108-90-7	Chlorobenzene	5.40	U	0.80	5.40	ug/Kg
100-41-4	Ethyl Benzene	5.40	U	0.67	5.40	ug/Kg
179601-23-1	m/p-Xylenes	10.8	U	1.50	10.8	ug/Kg
95-47-6	o-Xylene	5.40	U	0.76	5.40	ug/Kg
100-42-5	Styrene	5.40	U	0.65	5.40	ug/Kg
75-25-2	Bromoform	5.40	U	0.87	5.40	ug/Kg
98-82-8	Isopropylbenzene	5.40	U	0.72	5.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.40	U	1.20	5.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.40	U	0.80	5.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.40	U	0.86	5.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.40	U	0.64	5.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.40	U	1.70	5.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.40	U	0.85	5.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.40	U	0.84	5.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	60.7		50 - 163	121%	SPK: 50
1868-53-7	Dibromofluoromethane	60.2		54 - 147	120%	SPK: 50
2037-26-5	Toluene-d8	43.5		58 - 134	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	16.3		29 - 146	33%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	5140	7.707			
540-36-3	1,4-Difluorobenzene	8010	8.616			
3114-55-4	Chlorobenzene-d5	5640	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	744	13.346			

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.4
Sample Wt/Vol:	5.07 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
VY021035.D	1		02/03/25 17:24	VY020325

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	84.3
Sample Wt/Vol:	5.02 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
VY021070.D	1		02/04/25 19:44	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.90	U	1.90	5.90	ug/Kg
74-87-3	Chloromethane	5.90	U	1.40	5.90	ug/Kg
75-01-4	Vinyl Chloride	5.90	U	0.91	5.90	ug/Kg
74-83-9	Bromomethane	5.90	U	1.20	5.90	ug/Kg
75-00-3	Chloroethane	5.90	U	1.20	5.90	ug/Kg
75-69-4	Trichlorofluoromethane	5.90	U	1.10	5.90	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.90	U	1.30	5.90	ug/Kg
75-65-0	Tert butyl alcohol	29.5	U	18.4	29.5	ug/Kg
75-35-4	1,1-Dichloroethene	5.90	U	0.92	5.90	ug/Kg
67-64-1	Acetone	29.5	U	7.40	29.5	ug/Kg
75-15-0	Carbon Disulfide	5.90	U	1.50	5.90	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.90	U	0.79	5.90	ug/Kg
79-20-9	Methyl Acetate	5.90	U	2.10	5.90	ug/Kg
75-09-2	Methylene Chloride	11.8	U	4.00	11.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.90	U	0.99	5.90	ug/Kg
75-34-3	1,1-Dichloroethane	5.90	U	0.74	5.90	ug/Kg
110-82-7	Cyclohexane	5.90	U	0.82	5.90	ug/Kg
78-93-3	2-Butanone	29.5	U	6.70	29.5	ug/Kg
56-23-5	Carbon Tetrachloride	5.90	U	1.00	5.90	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.90	U	0.72	5.90	ug/Kg
74-97-5	Bromochloromethane	5.90	U	2.90	5.90	ug/Kg
67-66-3	Chloroform	5.90	U	0.79	5.90	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.90	U	0.92	5.90	ug/Kg
108-87-2	Methylcyclohexane	5.90	U	1.00	5.90	ug/Kg
71-43-2	Benzene	5.90	U	0.85	5.90	ug/Kg
107-06-2	1,2-Dichloroethane	5.90	U	0.72	5.90	ug/Kg
79-01-6	Trichloroethene	5.90	U	0.89	5.90	ug/Kg
78-87-5	1,2-Dichloropropane	5.90	U	0.78	5.90	ug/Kg
75-27-4	Bromodichloromethane	5.90	U	0.66	5.90	ug/Kg
108-10-1	4-Methyl-2-Pentanone	29.5	U	5.10	29.5	ug/Kg

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	84.3
Sample Wt/Vol:	5.02 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
VY021070.D	1		02/04/25 19:44	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.90	U	0.79	5.90	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.90	U	0.71	5.90	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.90	U	0.67	5.90	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.90	U	0.99	5.90	ug/Kg
591-78-6	2-Hexanone	29.5	U	5.70	29.5	ug/Kg
124-48-1	Dibromochloromethane	5.90	U	0.77	5.90	ug/Kg
106-93-4	1,2-Dibromoethane	5.90	U	0.93	5.90	ug/Kg
127-18-4	Tetrachloroethene	5.90	U	1.10	5.90	ug/Kg
108-90-7	Chlorobenzene	5.90	U	0.87	5.90	ug/Kg
100-41-4	Ethyl Benzene	5.90	U	0.73	5.90	ug/Kg
179601-23-1	m/p-Xylenes	11.8	U	1.60	11.8	ug/Kg
95-47-6	o-Xylene	5.90	U	0.83	5.90	ug/Kg
100-42-5	Styrene	5.90	U	0.71	5.90	ug/Kg
75-25-2	Bromoform	5.90	U	0.96	5.90	ug/Kg
98-82-8	Isopropylbenzene	5.90	U	0.79	5.90	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.90	U	1.30	5.90	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.90	U	0.87	5.90	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.90	U	0.95	5.90	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.90	U	0.70	5.90	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.90	U	1.80	5.90	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.90	U	0.93	5.90	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.90	U	0.92	5.90	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.1		50 - 163	116%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		54 - 147	104%	SPK: 50
2037-26-5	Toluene-d8	50.5		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.0		29 - 146	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	158000	7.707			
540-36-3	1,4-Difluorobenzene	293000	8.616			
3114-55-4	Chlorobenzene-d5	275000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.347			

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	84.3
Sample Wt/Vol:	5.02 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
VY021070.D	1		02/04/25 19:44	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	79
Sample Wt/Vol:	5.06 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
VY021071.D	1		02/04/25 20:07	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	6.30	U	2.10	6.30	ug/Kg
74-87-3	Chloromethane	6.30	U	1.50	6.30	ug/Kg
75-01-4	Vinyl Chloride	6.30	U	0.96	6.30	ug/Kg
74-83-9	Bromomethane	6.30	U	1.30	6.30	ug/Kg
75-00-3	Chloroethane	6.30	U	1.30	6.30	ug/Kg
75-69-4	Trichlorofluoromethane	6.30	U	1.10	6.30	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	6.30	U	1.30	6.30	ug/Kg
75-65-0	Tert butyl alcohol	31.3	U	19.5	31.3	ug/Kg
75-35-4	1,1-Dichloroethene	6.30	U	0.98	6.30	ug/Kg
67-64-1	Acetone	31.3	U	7.80	31.3	ug/Kg
75-15-0	Carbon Disulfide	6.30	U	1.60	6.30	ug/Kg
1634-04-4	Methyl tert-butyl Ether	6.30	U	0.84	6.30	ug/Kg
79-20-9	Methyl Acetate	6.30	U	2.30	6.30	ug/Kg
75-09-2	Methylene Chloride	12.5	U	4.30	12.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	6.30	U	1.10	6.30	ug/Kg
75-34-3	1,1-Dichloroethane	6.30	U	0.79	6.30	ug/Kg
110-82-7	Cyclohexane	6.30	U	0.86	6.30	ug/Kg
78-93-3	2-Butanone	31.3	U	7.10	31.3	ug/Kg
56-23-5	Carbon Tetrachloride	6.30	U	1.10	6.30	ug/Kg
156-59-2	cis-1,2-Dichloroethene	6.30	U	0.76	6.30	ug/Kg
74-97-5	Bromochloromethane	6.30	U	3.00	6.30	ug/Kg
67-66-3	Chloroform	6.30	U	0.84	6.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	6.30	U	0.98	6.30	ug/Kg
108-87-2	Methylcyclohexane	6.30	U	1.10	6.30	ug/Kg
71-43-2	Benzene	6.30	U	0.90	6.30	ug/Kg
107-06-2	1,2-Dichloroethane	6.30	U	0.76	6.30	ug/Kg
79-01-6	Trichloroethene	6.30	U	0.94	6.30	ug/Kg
78-87-5	1,2-Dichloropropane	6.30	U	0.83	6.30	ug/Kg
75-27-4	Bromodichloromethane	6.30	U	0.70	6.30	ug/Kg
108-10-1	4-Methyl-2-Pentanone	31.3	U	5.40	31.3	ug/Kg

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	79
Sample Wt/Vol:	5.06 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
VY021071.D	1		02/04/25 20:07	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	6.30	U	0.84	6.30	ug/Kg
10061-02-6	t-1,3-Dichloropropene	6.30	U	0.75	6.30	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	6.30	U	0.71	6.30	ug/Kg
79-00-5	1,1,2-Trichloroethane	6.30	U	1.10	6.30	ug/Kg
591-78-6	2-Hexanone	31.3	U	6.00	31.3	ug/Kg
124-48-1	Dibromochloromethane	6.30	U	0.81	6.30	ug/Kg
106-93-4	1,2-Dibromoethane	6.30	U	0.99	6.30	ug/Kg
127-18-4	Tetrachloroethene	6.30	U	1.10	6.30	ug/Kg
108-90-7	Chlorobenzene	6.30	U	0.93	6.30	ug/Kg
100-41-4	Ethyl Benzene	6.30	U	0.78	6.30	ug/Kg
179601-23-1	m/p-Xylenes	12.5	U	1.70	12.5	ug/Kg
95-47-6	o-Xylene	6.30	U	0.88	6.30	ug/Kg
100-42-5	Styrene	6.30	U	0.75	6.30	ug/Kg
75-25-2	Bromoform	6.30	U	1.00	6.30	ug/Kg
98-82-8	Isopropylbenzene	6.30	U	0.84	6.30	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	6.30	U	1.40	6.30	ug/Kg
541-73-1	1,3-Dichlorobenzene	6.30	U	0.93	6.30	ug/Kg
106-46-7	1,4-Dichlorobenzene	6.30	U	1.00	6.30	ug/Kg
95-50-1	1,2-Dichlorobenzene	6.30	U	0.74	6.30	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	6.30	U	2.00	6.30	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	6.30	U	0.99	6.30	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	6.30	U	0.98	6.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.3		50 - 163	113%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	50.3		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		29 - 146	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	159000	7.713			
540-36-3	1,4-Difluorobenzene	292000	8.615			
3114-55-4	Chlorobenzene-d5	271000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	111000	13.346			

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	79
Sample Wt/Vol:	5.06 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
VY021071.D	1		02/04/25 20:07	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.08 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
VY021038.D	1		02/03/25 18:34	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.80	U	1.90	5.80	ug/Kg
74-87-3	Chloromethane	5.80	U	1.30	5.80	ug/Kg
75-01-4	Vinyl Chloride	5.80	U	0.89	5.80	ug/Kg
74-83-9	Bromomethane	5.80	U	1.20	5.80	ug/Kg
75-00-3	Chloroethane	5.80	U	1.20	5.80	ug/Kg
75-69-4	Trichlorofluoromethane	5.80	U	1.10	5.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.80	U	1.20	5.80	ug/Kg
75-65-0	Tert butyl alcohol	28.8	U	18.0	28.8	ug/Kg
75-35-4	1,1-Dichloroethene	5.80	U	0.90	5.80	ug/Kg
67-64-1	Acetone	28.8	U	7.20	28.8	ug/Kg
75-15-0	Carbon Disulfide	5.80	U	1.50	5.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.80	U	0.77	5.80	ug/Kg
79-20-9	Methyl Acetate	5.80	U	2.10	5.80	ug/Kg
75-09-2	Methylene Chloride	11.5	U	3.90	11.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.80	U	0.97	5.80	ug/Kg
75-34-3	1,1-Dichloroethane	5.80	U	0.73	5.80	ug/Kg
110-82-7	Cyclohexane	5.80	U	0.80	5.80	ug/Kg
78-93-3	2-Butanone	28.8	U	6.60	28.8	ug/Kg
56-23-5	Carbon Tetrachloride	5.80	U	1.00	5.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.80	U	0.70	5.80	ug/Kg
74-97-5	Bromochloromethane	5.80	U	2.80	5.80	ug/Kg
67-66-3	Chloroform	5.80	U	0.77	5.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.80	U	0.90	5.80	ug/Kg
108-87-2	Methylcyclohexane	5.80	U	1.00	5.80	ug/Kg
71-43-2	Benzene	5.80	U	0.83	5.80	ug/Kg
107-06-2	1,2-Dichloroethane	5.80	U	0.70	5.80	ug/Kg
79-01-6	Trichloroethene	5.80	U	0.87	5.80	ug/Kg
78-87-5	1,2-Dichloropropane	5.80	U	0.76	5.80	ug/Kg
75-27-4	Bromodichloromethane	5.80	U	0.65	5.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	28.8	U	5.00	28.8	ug/Kg

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.08 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
VY021038.D	1		02/03/25 18:34	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.80	U	0.77	5.80	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.80	U	0.69	5.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.80	U	0.66	5.80	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.80	U	0.97	5.80	ug/Kg
591-78-6	2-Hexanone	28.8	U	5.50	28.8	ug/Kg
124-48-1	Dibromochloromethane	5.80	U	0.75	5.80	ug/Kg
106-93-4	1,2-Dibromoethane	5.80	U	0.91	5.80	ug/Kg
127-18-4	Tetrachloroethene	5.80	U	1.00	5.80	ug/Kg
108-90-7	Chlorobenzene	5.80	U	0.85	5.80	ug/Kg
100-41-4	Ethyl Benzene	5.80	U	0.72	5.80	ug/Kg
179601-23-1	m/p-Xylenes	11.5	U	1.60	11.5	ug/Kg
95-47-6	o-Xylene	5.80	U	0.81	5.80	ug/Kg
100-42-5	Styrene	5.80	U	0.69	5.80	ug/Kg
75-25-2	Bromoform	5.80	U	0.93	5.80	ug/Kg
98-82-8	Isopropylbenzene	5.80	U	0.77	5.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.80	U	1.30	5.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.80	U	0.85	5.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.80	U	0.92	5.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.80	U	0.68	5.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.80	U	1.80	5.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.80	U	0.91	5.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.80	U	0.90	5.80	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.7		50 - 163	113%	SPK: 50
1868-53-7	Dibromofluoromethane	58.1		54 - 147	116%	SPK: 50
2037-26-5	Toluene-d8	48.3		58 - 134	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	35.7		29 - 146	71%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	27000	7.707			
540-36-3	1,4-Difluorobenzene	44600	8.616			
3114-55-4	Chlorobenzene-d5	36800	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	10800	13.346			

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.08 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
VY021038.D	1		02/03/25 18:34	VY020325

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.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1216-01	JPP-18.1-012825	1,2-Dichloroethane-d4	50	55.4	111	50	163
		Dibromofluoromethane	50	53.4	107	54	147
		Toluene-d8	50	49.7	99	58	134
		4-Bromofluorobenzene	50	44.6	89	29	146
Q1216-05	JPP-21.1-012825	1,2-Dichloroethane-d4	50	60.7	121	50	163
		Dibromofluoromethane	50	60.1	120	54	147
		Toluene-d8	50	43.5	87	58	134
		4-Bromofluorobenzene	50	16.4	33	29	146
Q1216-09	JPP-21.2-012825	1,2-Dichloroethane-d4	50	58.1	116	50	163
		Dibromofluoromethane	50	51.8	104	54	147
		Toluene-d8	50	50.5	101	58	134
		4-Bromofluorobenzene	50	48.0	96	29	146
Q1216-13	JPP-26.1-012825	1,2-Dichloroethane-d4	50	56.3	113	50	163
		Dibromofluoromethane	50	51.5	103	54	147
		Toluene-d8	50	50.3	101	58	134
		4-Bromofluorobenzene	50	48.3	97	29	146
Q1216-17	JPP-26.2-012825	1,2-Dichloroethane-d4	50	56.7	113	50	163
		Dibromofluoromethane	50	58.0	116	54	147
		Toluene-d8	50	48.3	97	58	134
		4-Bromofluorobenzene	50	35.7	71	29	146
VY0203SBL01	VY0203SBL01	1,2-Dichloroethane-d4	50	50.6	101	50	163
		Dibromofluoromethane	50	49.4	99	54	147
		Toluene-d8	50	47.8	96	58	134
		4-Bromofluorobenzene	50	43.4	87	29	146
VY0203SBS01	VY0203SBS01	1,2-Dichloroethane-d4	50	45.9	92	50	163
		Dibromofluoromethane	50	48.8	98	54	147
		Toluene-d8	50	50.2	100	58	134
		4-Bromofluorobenzene	50	49.7	99	29	146
VY0203SBSD01	VY0203SBSD01	1,2-Dichloroethane-d4	50	49.0	98	50	163
		Dibromofluoromethane	50	48.3	97	54	147
		Toluene-d8	50	50.2	100	58	134
		4-Bromofluorobenzene	50	49.7	99	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

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021029.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBS01	Dichlorodifluoromethane	20	18.1	ug/Kg	91			64	136	
	Chloromethane	20	18.2	ug/Kg	91			70	130	
	Vinyl chloride	20	17.8	ug/Kg	89			72	129	
	Bromomethane	20	18.3	ug/Kg	92			58	141	
	Chloroethane	20	17.5	ug/Kg	88			69	130	
	Trichlorofluoromethane	20	18.1	ug/Kg	91			69	134	
	1,1,2-Trichlorotrifluoroethane	20	18.5	ug/Kg	93			81	123	
	Tert butyl alcohol	100	91.7	ug/Kg	92			24	175	
	1,1-Dichloroethene	20	18.0	ug/Kg	90			79	121	
	Acetone	100	83.7	ug/Kg	84			60	131	
	Carbon disulfide	20	17.7	ug/Kg	89			45	154	
	Methyl tert-butyl Ether	20	16.1	ug/Kg	81			77	129	
	Methyl Acetate	20	15.4	ug/Kg	77			69	149	
	Methylene Chloride	20	17.1	ug/Kg	86			56	174	
	trans-1,2-Dichloroethene	20	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	20	17.6	ug/Kg	88			82	123	
	Cyclohexane	20	17.8	ug/Kg	89			76	122	
	2-Butanone	100	78.6	ug/Kg	79			69	131	
	Carbon Tetrachloride	20	18.0	ug/Kg	90			76	129	
	cis-1,2-Dichloroethene	20	17.4	ug/Kg	87			82	123	
	Bromochloromethane	20	16.4	ug/Kg	82			80	127	
	Chloroform	20	17.5	ug/Kg	88			82	125	
	1,1,1-Trichloroethane	20	18.1	ug/Kg	91			80	126	
	Methylcyclohexane	20	18.5	ug/Kg	93			77	123	
	Benzene	20	18.1	ug/Kg	91			84	121	
	1,2-Dichloroethane	20	16.9	ug/Kg	85			81	126	
	Trichloroethene	20	18.1	ug/Kg	91			83	122	
	1,2-Dichloropropane	20	17.6	ug/Kg	88			83	122	
	Bromodichloromethane	20	17.2	ug/Kg	86			82	123	
	4-Methyl-2-Pentanone	100	79.4	ug/Kg	79			70	135	
	Toluene	20	18.1	ug/Kg	91			83	122	
	t-1,3-Dichloropropene	20	17.1	ug/Kg	86			78	124	
	cis-1,3-Dichloropropene	20	17.5	ug/Kg	88			81	122	
	1,1,2-Trichloroethane	20	16.7	ug/Kg	84			82	125	
	2-Hexanone	100	76.7	ug/Kg	77			66	138	
	Dibromochloromethane	20	16.5	ug/Kg	83			79	125	
	1,2-Dibromoethane	20	16.7	ug/Kg	84			80	125	
	Tetrachloroethene	20	18.7	ug/Kg	94			83	125	
	Chlorobenzene	20	17.7	ug/Kg	89			84	122	
	Ethyl Benzene	20	18.5	ug/Kg	93			82	124	
	m/p-Xylenes	40	37.2	ug/Kg	93			83	124	
	o-Xylene	20	18.2	ug/Kg	91			83	123	
	Styrene	20	18.2	ug/Kg	91			82	124	
	Bromoform	20	17.0	ug/Kg	85			75	127	
	Isopropylbenzene	20	18.7	ug/Kg	94			82	124	
	1,1,2,2-Tetrachloroethane	20	16.4	ug/Kg	82			77	127	
	1,3-Dichlorobenzene	20	18.2	ug/Kg	91			83	122	
	1,4-Dichlorobenzene	20	17.9	ug/Kg	90			84	121	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021029.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBS01	1,2-Dichlorobenzene	20	17.5	ug/Kg	88			83	124	
	1,2-Dibromo-3-Chloropropane	20	16.6	ug/Kg	83			66	134	
	1,2,4-Trichlorobenzene	20	17.5	ug/Kg	88			78	127	
	1,2,3-Trichlorobenzene	20	17.3	ug/Kg	86			70	137	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021030.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBSD01	Dichlorodifluoromethane	20	19.5	ug/Kg	98	7		64	136	20
	Chloromethane	20	19.0	ug/Kg	95	4		70	130	20
	Vinyl chloride	20	18.7	ug/Kg	94	5		72	129	20
	Bromomethane	20	19.2	ug/Kg	96	4		58	141	20
	Chloroethane	20	18.9	ug/Kg	95	8		69	130	20
	Trichlorofluoromethane	20	19.3	ug/Kg	97	6		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	19.7	ug/Kg	99	6		81	123	20
	Tert butyl alcohol	100	120	ug/Kg	120	26	*	24	175	20
	1,1-Dichloroethene	20	19.6	ug/Kg	98	9		79	121	20
	Acetone	100	97.7	ug/Kg	98	15		60	131	20
	Carbon disulfide	20	18.9	ug/Kg	95	7		45	154	20
	Methyl tert-butyl Ether	20	19.6	ug/Kg	98	19		77	129	20
	Methyl Acetate	20	19.3	ug/Kg	97	23	*	69	149	20
	Methylene Chloride	20	19.3	ug/Kg	97	12		56	174	20
	trans-1,2-Dichloroethene	20	18.9	ug/Kg	95	5		80	123	20
	1,1-Dichloroethane	20	18.7	ug/Kg	94	7		82	123	20
	Cyclohexane	20	19.5	ug/Kg	98	10		76	122	20
	2-Butanone	100	99.3	ug/Kg	99	22	*	69	131	20
	Carbon Tetrachloride	20	19.2	ug/Kg	96	6		76	129	20
	cis-1,2-Dichloroethene	20	19.0	ug/Kg	95	9		82	123	20
	Bromochloromethane	20	18.1	ug/Kg	91	10		80	127	20
	Chloroform	20	19.2	ug/Kg	96	9		82	125	20
	1,1,1-Trichloroethane	20	19.4	ug/Kg	97	6		80	126	20
	Methylcyclohexane	20	19.7	ug/Kg	99	6		77	123	20
	Benzene	20	19.4	ug/Kg	97	6		84	121	20
	1,2-Dichloroethane	20	19.3	ug/Kg	97	13		81	126	20
	Trichloroethene	20	19.3	ug/Kg	97	6		83	122	20
	1,2-Dichloropropane	20	19.5	ug/Kg	98	11		83	122	20
	Bromodichloromethane	20	18.9	ug/Kg	95	10		82	123	20
	4-Methyl-2-Pentanone	100	99.9	ug/Kg	100	23	*	70	135	20
	Toluene	20	19.8	ug/Kg	99	8		83	122	20
	t-1,3-Dichloropropene	20	19.5	ug/Kg	98	13		78	124	20
	cis-1,3-Dichloropropene	20	19.2	ug/Kg	96	9		81	122	20
	1,1,2-Trichloroethane	20	19.3	ug/Kg	97	14		82	125	20
	2-Hexanone	100	99.3	ug/Kg	99	25	*	66	138	20
	Dibromochloromethane	20	19.2	ug/Kg	96	15		79	125	20
	1,2-Dibromoethane	20	19.0	ug/Kg	95	12		80	125	20
	Tetrachloroethene	20	19.9	ug/Kg	100	6		83	125	20
	Chlorobenzene	20	19.7	ug/Kg	99	11		84	122	20
	Ethyl Benzene	20	19.9	ug/Kg	100	7		82	124	20
	m/p-Xylenes	40	40.2	ug/Kg	101	8		83	124	20
	o-Xylene	20	19.8	ug/Kg	99	8		83	123	20
	Styrene	20	20.1	ug/Kg	101	10		82	124	20
	Bromoform	20	20.0	ug/Kg	100	16		75	127	20
	Isopropylbenzene	20	19.5	ug/Kg	98	4		82	124	20
	1,1,2,2-Tetrachloroethane	20	19.2	ug/Kg	96	16		77	127	20
	1,3-Dichlorobenzene	20	19.5	ug/Kg	98	7		83	122	20
	1,4-Dichlorobenzene	20	19.3	ug/Kg	97	7		84	121	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021030.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBSD01	1,2-Dichlorobenzene	20	19.3	ug/Kg	97	10		83	124	20
	1,2-Dibromo-3-Chloropropane	20	18.9	ug/Kg	95	13		66	134	20
	1,2,4-Trichlorobenzene	20	18.9	ug/Kg	95	8		78	127	20
	1,2,3-Trichlorobenzene	20	19.3	ug/Kg	97	12		70	137	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

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.: Q1216

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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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0203SBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: VY021028.D Lab Sample ID: VY0203SBL01

Date Analyzed: 02/03/2025 Time Analyzed: 14:13

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
VY0203SBS01	VY0203SBS01	VY021029.D	02/03/2025
VY0203SBSD01	VY0203SBSD01	VY021030.D	02/03/2025
JPP-21.1-012825	Q1216-05	VY021035.D	02/03/2025
JPP-26.2-012825	Q1216-17	VY021038.D	02/03/2025

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0204SBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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
JPP-18.1-012825	Q1216-01	VY021053.D	02/04/2025
JPP-21.2-012825	Q1216-09	VY021070.D	02/04/2025
JPP-26.1-012825	Q1216-13	VY021071.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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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
VY0203SBL01	VY0203SBL01	VY021028.D	02/03/2025	14:13
VY0203SBS01	VY0203SBS01	VY021029.D	02/03/2025	14:55
VY0203SBSD01	VY0203SBSD01	VY021030.D	02/03/2025	15:17
JPP-21.1-012825	Q1216-05	VY021035.D	02/03/2025	17:24
JPP-26.2-012825	Q1216-17	VY021038.D	02/03/2025	18:34

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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
JPP-18.1-012825	Q1216-01	VY021053.D	02/04/2025	13:06
JPP-21.2-012825	Q1216-09	VY021070.D	02/04/2025	19:44
JPP-26.1-012825	Q1216-13	VY021071.D	02/04/2025	20:07

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: VY021023.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_Y Time Analyzed: 11:43

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	185055	7.71	285755	8.62	250150	11.42
UPPER LIMIT	370110	8.213	571510	9.122	500300	11.92
LOWER LIMIT	92527.5	7.213	142878	8.122	125075	10.92
EPA SAMPLE NO.						
JPP-21.1-012825	5141 *	7.71	8013 *	8.62	5636 *	11.42
JPP-26.2-012825	27029 *	7.71	44615 *	8.62	36780 *	11.42
VY0203SBL01	159750	7.71	285727	8.62	240190	11.42
VY0203SBS01	208053	7.71	315310	8.62	265413	11.42
VY0203SBSD01	203811	7.71	313701	8.62	262239	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: VY021023.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_Y Time Analyzed: 11:43

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

	IS4 AREA #		RT #				
12 HOUR STD	121069		13.353				
UPPER LIMIT	242138		13.853				
LOWER LIMIT	60534.5		12.853				
EPA SAMPLE NO.							
JPP-21.1-012825	744	*	13.35				
JPP-26.2-012825	10812	*	13.35				
VY0203SBL01	89793		13.35				
VY0203SBS01	127785		13.35				
VY0203SBSD01	128240		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.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	91498	7.71	158532	8.62	140199	11.42
JPP-21.2-012825	157599	7.71	293437	8.62	274614	11.41
JPP-26.1-012825	158642	7.71	291874	8.62	271395	11.42
VY0204SBL01	173019	7.71	321305	8.62	292351	11.42
VY0204SBS01	159738	7.71	247448	8.62	212473	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	53582	13.35				
JPP-21.2-012825	112399	13.35				
JPP-26.1-012825	110517	13.35				
VY0204SBL01	114535	13.35				
VY0204SBS01	108974	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

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:	VY0203SBL01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBL01	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
VY021028.D	1		02/03/25 14:13	VY020325

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

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:	VY0203SBL01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBL01	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
VY021028.D	1		02/03/25 14:13	VY020325

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	50.6		50 - 163	101%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		54 - 147	99%	SPK: 50
2037-26-5	Toluene-d8	47.8		58 - 134	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.4		29 - 146	87%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.713			
540-36-3	1,4-Difluorobenzene	286000	8.622			
3114-55-4	Chlorobenzene-d5	240000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	89800	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:	VY0203SBL01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBL01	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
VY021028.D	1		02/03/25 14:13	VY020325

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:	VY0204SBL01	SDG No.:	Q1216
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.:	Q1216
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.:	Q1216
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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBS01	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
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.1		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.2		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.8		0.77	5.00	ug/Kg
74-83-9	Bromomethane	18.3		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.5		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	18.5		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	91.7		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.0		0.78	5.00	ug/Kg
67-64-1	Acetone	83.7		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	16.1		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	15.4		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	17.1		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	17.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	17.8		0.69	5.00	ug/Kg
78-93-3	2-Butanone	78.6		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.0		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	17.4		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	16.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	17.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.1		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	18.1		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	16.9		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.1		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	17.6		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	17.2		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	79.4		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:	VY0203SBS01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBS01	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
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	17.1		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	17.5		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	16.7		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	76.7		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	16.5		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	16.7		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.7		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	17.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.5		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.2		0.70	5.00	ug/Kg
100-42-5	Styrene	18.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	17.0		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	16.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	18.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	17.9		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	17.5		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.6		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	17.5		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.3		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.9		50 - 163	92%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		54 - 147	98%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	208000	7.713			
540-36-3	1,4-Difluorobenzene	315000	8.622			
3114-55-4	Chlorobenzene-d5	265000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.352			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBS01	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
VY021029.D	1		02/03/25 14:55	VY020325

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:	VY0204SBS01	SDG No.:	Q1216
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.:	Q1216
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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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1216
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:	VY0203SBSD01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBSD01	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
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.5		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.0		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.7		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	18.9		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	19.3		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.7		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	19.6		0.78	5.00	ug/Kg
67-64-1	Acetone	97.7		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.9		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.6		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	19.3		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	19.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	18.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.7		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	19.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	99.3		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.2		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	18.1		2.40	5.00	ug/Kg
67-66-3	Chloroform	19.2		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.4		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	19.7		0.87	5.00	ug/Kg
71-43-2	Benzene	19.4		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	19.3		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.3		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.5		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.9		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	99.9		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:	VY0203SBSD01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBSD01	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
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	19.8		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.5		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.2		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	19.3		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	99.3		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.2		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	19.0		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.9		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	40.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	19.8		0.70	5.00	ug/Kg
100-42-5	Styrene	20.1		0.60	5.00	ug/Kg
75-25-2	Bromoform	20.0		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	19.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.2		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.5		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.3		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18.9		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.9		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	19.3		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		50 - 163	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	204000	7.713			
540-36-3	1,4-Difluorobenzene	314000	8.616			
3114-55-4	Chlorobenzene-d5	262000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.352			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBSD01	SDG No.:	Q1216
Lab Sample ID:	VY0203SBSD01	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
VY021030.D	1		02/03/25 15:17	VY020325

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

Alliance TECHNICAL GROUP
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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/04/25	
Q1216-02	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP VOA	8260D			02/03/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/03/25	
Q1216-06	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP VOA	8260D			02/03/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/04/25	
Q1216-10	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP VOA	8260D			02/03/25	
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/04/25	
Q1216-14	**JPP-26.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP VOA	8260D			02/03/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			VOCMS Group1	8260D			02/03/25	
Q1216-18	**JPP-26.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP VOA	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**JPP-26.1-012825**							
Q1216-14	JPP-26.1-012825	TCLP	Chloroform	1.20	J	0.26	5.00	ug/L
			Total Voc :	1.20				
			Total Concentration:	1.20				

SAMPLE DATA

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-02	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:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044809.D	1		02/03/25 12:41	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	48.5		74 - 125	97%	SPK: 50
1868-53-7	Dibromofluoromethane	50.0		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	53.5		86 - 113	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	123000	5.544			
540-36-3	1,4-Difluorobenzene	250000	6.757			
3114-55-4	Chlorobenzene-d5	219000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	93800	12.018			

U = Not Detected
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
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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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-06	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
VX044810.D	1		02/03/25 13:04	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	47.5		74 - 125	95%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	54.8		86 - 113	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		77 - 121	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	123000	5.544			
540-36-3	1,4-Difluorobenzene	247000	6.757			
3114-55-4	Chlorobenzene-d5	223000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	96300	12.018			

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-10	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:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044811.D	1		02/03/25 13:27	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	48.9		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		75 - 124	99%	SPK: 50
2037-26-5	Toluene-d8	53.1		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		77 - 121	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	114000	5.55			
540-36-3	1,4-Difluorobenzene	234000	6.757			
3114-55-4	Chlorobenzene-d5	201000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	77400	12.018			

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-14	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:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085632.D	1		02/03/25 19:13	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	1.20	J	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	52.9		74 - 125	106%	SPK: 50
1868-53-7	Dibromofluoromethane	45.8		75 - 124	92%	SPK: 50
2037-26-5	Toluene-d8	46.3		86 - 113	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.8	*	77 - 121	76%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	161000	8.224			
540-36-3	1,4-Difluorobenzene	340000	9.1			
3114-55-4	Chlorobenzene-d5	288000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	94800	13.788			

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-18	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:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085635.D	1		02/03/25 20:25	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	54.0		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		75 - 124	98%	SPK: 50
2037-26-5	Toluene-d8	50.5		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.7		77 - 121	87%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	168000	8.224			
540-36-3	1,4-Difluorobenzene	352000	9.1			
3114-55-4	Chlorobenzene-d5	330000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	117000	13.788			

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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.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
Q1216-02	JPP-18.1-012825	1,2-Dichloroethane-d4	50	48.5	97		74	125
		Dibromofluoromethane	50	50.0	100		75	124
		Toluene-d8	50	53.5	107		86	113
		4-Bromofluorobenzene	50	48.9	98		77	121
Q1216-06	JPP-21.1-012825	1,2-Dichloroethane-d4	50	47.5	95		74	125
		Dibromofluoromethane	50	49.8	100		75	124
		Toluene-d8	50	54.8	110		86	113
		4-Bromofluorobenzene	50	50.9	102		77	121
Q1216-10	JPP-21.2-012825	1,2-Dichloroethane-d4	50	48.9	98		74	125
		Dibromofluoromethane	50	49.4	99		75	124
		Toluene-d8	50	53.1	106		86	113
		4-Bromofluorobenzene	50	46.6	93		77	121
Q1216-14	JPP-26.1-012825	1,2-Dichloroethane-d4	50	52.9	106		74	125
		Dibromofluoromethane	50	45.8	92		75	124
		Toluene-d8	50	46.3	93		86	113
		4-Bromofluorobenzene	50	37.8	76	*	77	121
Q1216-18	JPP-26.2-012825	1,2-Dichloroethane-d4	50	54.0	108		74	125
		Dibromofluoromethane	50	48.8	98		75	124
		Toluene-d8	50	50.5	101		86	113
		4-Bromofluorobenzene	50	43.7	87		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.: Q1216

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.: Q1216

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.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825	Q1216-14	VN085632.D	02/03/2025
JPP-26.2-012825	Q1216-18	VN085635.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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	Q1216-02	VX044809.D	02/03/2025
JPP-21.1-012825	Q1216-06	VX044810.D	02/03/2025
JPP-21.2-012825	Q1216-10	VX044811.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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825	Q1216-14	VN085632.D	02/03/2025	19:13
JPP-26.2-012825	Q1216-18	VN085635.D	02/03/2025	20:25

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	Q1216-02	VX044809.D	02/03/2025	12:41
JPP-21.1-012825	Q1216-06	VX044810.D	02/03/2025	13:04
JPP-21.2-012825	Q1216-10	VX044811.D	02/03/2025	13:27

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825	160642	8.22	339935	9.10	288192	11.87
JPP-26.2-012825	167923	8.22	351942	9.10	329985	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825	94832	13.79				
JPP-26.2-012825	117064	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	123160	5.54	250036	6.76	218940	10.05
JPP-21.1-012825	123220	5.54	247340	6.76	223027	10.05
JPP-21.2-012825	113728	5.55	233647	6.76	200547	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	93786	12.02				
JPP-21.1-012825	96275	12.02				
JPP-21.2-012825	77414	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.:	Q1216
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
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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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.:	Q1216
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			

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:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBS01	SDG No.:	Q1216
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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() = 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:	VX0203WBS01	SDG No.:	Q1216
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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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:	VN0203WBSD01	SDG No.:	Q1216
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			

U = Not Detected
LOQ = Limit of Quantitation
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CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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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Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**

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LAB CHRONICLE

PCB	8082A	01/30/25	01/30/25

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-01	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	81.2 Decanted:
Sample Wt/Vol:	5.01 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
FB031386.D	1	01/30/25 12:00	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	55.0	U	9.00	55.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	11.4		50 - 150	57%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-05	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	91.4 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
FB031405.D	50	01/30/25 21:46	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	552	J	422	2460	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-09	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	84.3 Decanted:
Sample Wt/Vol:	5.09 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
FB031406.D	50	01/30/25 22:13	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	520	J	450	2620	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.4		50 - 150	97%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-13	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	79 Decanted:
Sample Wt/Vol:	5.06 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
FB031407.D	50	01/30/25 22:39	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	678	J	483	2810	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.2		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
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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-17	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	85.3 Decanted:
Sample Wt/Vol:	5.01 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
FB031400.D	50	01/30/25 18:39	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	680	J	452	2630	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	23.0		50 - 150	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.
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QC SUMMARY

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SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBF0130S1	106				0
VBF0130S2	93				0
BSF0130S1	85				0
JPP-18.1-012825	57				0
JPP-26.2-012825	115				0
JPP-26.2-012825MS	95				0
JPP-26.2-012825MSD	81				0
JPP-21.1-012825	98				0
JPP-21.2-012825	97				0
JPP-26.1-012825	91				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 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: CHEM **Cas No:** Q1216 **SAS No :** Q1216 **SDG No:** Q1216

Client SampleID : JPP-26.2-012825MS **Datafile:** FB031401.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
GRO	10551	680	10176	90%		50-150

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SOIL GASOLINE RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: CHEM **Cas No:** Q1216 **SAS No :** Q1216 **SDG No:** Q1216

Client SampleID : JPP-26.2-012825MSD **Datafile:** FB031402.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
GRO	10426	680	7924	70%		50-150

MS/MSD % Recovery RPD : 25

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

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

Lab Code: CHEM **Cas No:** Q1216 **SAS No :** Q1216 **SDG No:** Q1216

Matrix Spike - EPA Sample No : BSF0130S1 **Datafile:** FB031384.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	180	100	50-150

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METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0130S2

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: FB031383.D Lab Sample ID: VBF0130S2

Date Analyzed: 01/30/25 Time Analyzed: 10:13

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
JPP-26.2-012825	Q1216-17	FB031400.D	01/30/25
JPP-26.2-012825MS	Q1216-17MS	FB031401.D	01/30/25
JPP-26.2-012825MSD	Q1216-17MSD	FB031402.D	01/30/25
JPP-21.1-012825	Q1216-05	FB031405.D	01/30/25
JPP-21.2-012825	Q1216-09	FB031406.D	01/30/25
JPP-26.1-012825	Q1216-13	FB031407.D	01/30/25

COMMENTS:

Alliance TECHNICAL GROUP
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METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBF0130S1

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: FB031382.D Lab Sample ID: VBF0130S1

Date Analyzed: 01/30/25 Time Analyzed: 9:47

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
BSF0130S1	BSF0130S1	FB031384.D	01/30/25
JPP-18.1-012825	Q1216-01	FB031386.D	01/30/25

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:	VBF0130S1	SDG No.:	Q1216
Lab Sample ID:	VBF0130S1	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
FB031382.D	1	01/30/25 9:47	FB013025

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	21.1		50 - 150	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:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VBF0130S2	SDG No.:	Q1216
Lab Sample ID:	VBF0130S2	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
FB031383.D	50	01/30/25 10:13	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	2250	U	386	2250	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.6		50 - 150	93%	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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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0130S1	SDG No.:	Q1216
Lab Sample ID:	BSF0130S1	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
FB031384.D	1	01/30/25 10:40	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	180		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	17.1		50 - 150	85%	SPK: 20

Comments:

U = Not Detected
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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

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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-26.2-012825MS	SDG No.:	Q1216
Lab Sample ID:	Q1216-17MS	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	85.3 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
FB031401.D	50	01/30/25 19:06	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	10200		453	2640	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.9		50 - 150	95%	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

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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-26.2-012825MSD	SDG No.:	Q1216
Lab Sample ID:	Q1216-17MSD	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	85.3 Decanted:
Sample Wt/Vol:	5.06 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
FB031402.D	50	01/30/25 19:32	FB013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	7920		447	2610	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	16.1		50 - 150	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
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() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FB031381.D Analyst Name: YP/AJ Analyst Date: 01-30-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5826920	32372	35852	9.707

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FB031392.D Analyst Name: YP/AJ Analyst Date: 01-30-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5382208	29901	35852	16.599

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FB031403.D Analyst Name: YP/AJ Analyst Date: 01-30-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6227984	34600	35852	3.492

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FB031411.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5862983	32572	35852	9.149

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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	30 Jan 2025 9:08	FB031381.D	8.784	
VBF0130S1	VBF0130S1	30 Jan 2025 9:47	FB031382.D	8.786	
VBF0130S2	VBF0130S2	30 Jan 2025 10:13	FB031383.D	8.790	
BSF0130S1	BSF0130S1	30 Jan 2025 10:40	FB031384.D	8.790	
JPP-18.1-012825	Q1216-01	30 Jan 2025 12:00	FB031386.D	8.790	
20 PPB GRO STD	20 PPB GRO STD	30 Jan 2025 14:40	FB031392.D	8.790	
JPP-26.2-012825	Q1216-17	30 Jan 2025 18:39	FB031400.D	8.787	
JPP-26.2-012825MS	Q1216-17MS	30 Jan 2025 19:06	FB031401.D	8.788	
JPP-26.2-012825MSD	Q1216-17MSD	30 Jan 2025 19:32	FB031402.D	8.790	
20 PPB GRO STD	20 PPB GRO STD	30 Jan 2025 19:59	FB031403.D	8.790	
JPP-21.1-012825	Q1216-05	30 Jan 2025 21:46	FB031405.D	8.789	
JPP-21.2-012825	Q1216-09	30 Jan 2025 22:13	FB031406.D	8.790	
JPP-26.1-012825	Q1216-13	30 Jan 2025 22:39	FB031407.D	8.790	
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 00:26	FB031411.D	8.790	

 # 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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			SVOC-TCL BNA -20	8270E		01/30/25	02/07/25	
Q1216-04	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/06/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			SVOC-TCL BNA -20	8270E		01/30/25	02/07/25	
Q1216-08	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/04/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			SVOC-TCL BNA -20	8270E		01/30/25	02/04/25	
Q1216-12	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			SVOC-TCL BNA -20	8270E		01/30/25	02/07/25	
Q1216-15DL	**JPP-26.1-012825DL**	**SOIL**			**01/28/25**			**01/29/25**
			SVOC-TCL BNA -20	8270E		01/30/25	02/10/25	
Q1216-16	**JPP-26.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			SVOC-TCL BNA -20	8270E		01/30/25	02/04/25	
Q1216-20	**JPP-26.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/03/25	

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**JPP-18.1-012825**								
Q1216-03	JPP-18.1-012825	SOIL	Acenaphthene		250.000		97.1	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Dibenzofuran		100.000	J	100	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Fluorene		220.000		100	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Phenanthrene		2,600.000		100	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Anthracene		620.000		100	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Carbazole		100.000	J	96.1	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Fluoranthene		2,800.000		97.8	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Pyrene		2,900.000		99.4	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzo(a)anthracene		1,500.000		96.6	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Chrysene		1,300.000		95.2	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Bis(2-ethylhexyl)phthalate		110.000	J	110	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzo(b)fluoranthene		1,300.000		97.1	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzo(k)fluoranthene		650.000		98.9	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzo(a)pyrene		1,300.000		110	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Indeno(1,2,3-cd)pyrene		560.000		93.5	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Dibenzo(a,h)anthracene		180.000	J	97.2	200	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzo(g,h,i)perylene		650.000		95.9	200	ug/Kg
			Total Svoc :		**17,140.00**				
Q1216-03	JPP-18.1-012825	SOIL	11H-Benzo[a]fluoren-11-one	*	99.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	1-Isopropenylnaphthalene	*	90.600	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	2-Isopropyl-10-methylphenanthre	*	150.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzaldehyde, 3,5-dichloro-2-hyd	*	230.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzo[e]pyrene	*	920.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Benzophenone	*	220.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Naphthalene, 2,3-dimethyl-	*	100.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Octane, 2,4,6-trimethyl-	*	90.600	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Pyrene, 1-methyl-	*	150.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Pyrene, 4-methyl-	*	150.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Phenanthrene, 1-methyl-	*	250.000	J	0	0	ug/Kg
Q1216-03	JPP-18.1-012825	SOIL	Phenanthrene, 2-methyl-	*	99.800	J	0	0	ug/Kg
			Total Tics :		**2,550.00**				
			Total Concentration:		**19,690.00**				
Client ID :	**JPP-21.1-012825**								
Q1216-07	JPP-21.1-012825	SOIL	Acenaphthene		93.400	J	89.5	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Phenanthrene		1,100.000		92.7	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Anthracene		290.000		93.2	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Fluoranthene		2,200.000		90.2	190	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1216-07	JPP-21.1-012825	SOIL	Pyrene		2,200.000		91.6	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzo(a)anthracene		1,300.000		89.1	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Chrysene		1,100.000		87.8	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzo(b)fluoranthene		1,400.000		89.5	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzo(k)fluoranthene		560.000		91.2	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzo(a)pyrene		1,300.000		100	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Indeno(1,2,3-cd)pyrene		590.000		86.2	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Dibenzo(a,h)anthracene		190.000		89.6	190	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzo(g,h,i)perylene		690.000		88.4	190	ug/Kg
			Total Svoc :		**13,013.40**				
Q1216-07	JPP-21.1-012825	SOIL	1,1-Biphenyl, 2-azido-	*	140.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	1H-Cyclopropa[l]phenanthrene,1a	*	140.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	9,10-Anthracenedione	*	80.600	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzaldehyde, 3,5-dichloro-2-hyd	*	540.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzo[e]pyrene	*	960.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Benzophenone	*	170.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Cyclopenta(def)phenanthrenone	*	170.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Fluoranthene, 2-methyl-	*	140.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Pyrene, 1-methyl-	*	120.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Pyrene, 2-methyl-	*	110.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	unknown11.175	*	83.500	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	unknown12.404	*	150.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Naphthalene, 1-phenyl-	*	82.400	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Naphthalene, 2-phenyl-	*	230.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Naphtho[2,1-b]thiophene	*	75.100	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Phenanthrene, 1-methyl-	*	200.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Phenanthrene, 2,5-dimethyl-	*	190.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Phenanthrene, 2-methyl-	*	450.000	J	0	0	ug/Kg
Q1216-07	JPP-21.1-012825	SOIL	Phenanthrene, 4,5-dimethyl-	*	74.700	J	0	0	ug/Kg
			Total Tics :		**4,106.30**				
			Total Concentration:		**17,119.70**				
Client ID :	**JPP-21.2-012825**								
Q1216-11	JPP-21.2-012825	SOIL	Phenanthrene		2,000.000		200	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Anthracene		570.000		200	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Carbazole		220.000	J	190	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Fluoranthene		3,000.000		190	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Pyrene		1,900.000		200	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Benzo(a)anthracene		1,200.000		190	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Chrysene		1,100.000		190	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Benzo(b)fluoranthene		1,500.000		190	400	ug/Kg

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Hit Summary Sheet
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SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1216-11	JPP-21.2-012825	SOIL	Benzo(k)fluoranthene		530.000		200	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Benzo(a)pyrene		1,200.000		220	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Indeno(1,2,3-cd)pyrene		530.000		190	400	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Benzo(g,h,i)perylene		600.000		190	400	ug/Kg
			Total Svoc :		**14,350.00**				
Q1216-11	JPP-21.2-012825	SOIL	Pyrene, 1-methyl-	*	160.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Pyrene, 4-methyl-	*	190.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	11H-Benzo[b]fluorene	*	170.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	1H-Indene, 2-phenyl-	*	550.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	4H-Cyclopenta[def]phenanthrene	*	520.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	5,16[1,2]:8,13[1,2]-Dibenzen	*	170.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Benzo[e]pyrene	*	870.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Benzophenone	*	170.000	J	0	0	ug/Kg
Q1216-11	JPP-21.2-012825	SOIL	Phenanthrene, 1-methyl-	*	200.000	J	0	0	ug/Kg
			Total Tics :		**3,000.00**				
			Total Concentration:		**17,350.00**				
Client ID :	**JPP-26.1-012825**								
Q1216-15	JPP-26.1-012825	SOIL	Acenaphthene		520.000		97.8	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Dibenzofuran		160.000	J	100	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Fluorene		360.000		100	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Phenanthrene		6,500.000	E	100	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Anthracene		2,000.000		100	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Carbazole		200.000		96.8	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Fluoranthene		13,500.000	E	98.5	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Pyrene		15,500.000	E	100	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzo(a)anthracene		9,700.000	E	97.3	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Chrysene		7,400.000	E	95.9	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Bis(2-ethylhexyl)phthalate		150.000	J	110	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzo(b)fluoranthene		9,200.000	E	97.8	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzo(k)fluoranthene		3,600.000	E	99.6	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzo(a)pyrene		8,300.000	E	110	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Indeno(1,2,3-cd)pyrene		4,000.000	E	94.2	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Dibenzo(a,h)anthracene		1,200.000		97.9	200	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzo(g,h,i)perylene		4,500.000	E	96.6	200	ug/Kg
			Total Svoc :		**86,790.00**				
Q1216-15	JPP-26.1-012825	SOIL	Benzene, [1-(2,4-cyclopentadien-1	*	270.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	11H-Benzo[a]fluoren-11-one	*	130.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	4H-Cyclopenta[def]phenanthrene	*	380.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	9,10[1,2]-Benzenoanthracene, 9,1	*	1,200.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzo[b]naphtho[2,1-d]thiophene	*	130.000	J	0	0	ug/Kg

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Hit Summary Sheet
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SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1216-15	JPP-26.1-012825	SOIL	Benzo[e]pyrene	*	2,000.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Benzophenone	*	440.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Cyclopenta(def)phenanthrenone	*	130.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Cyclopenta[cd]pyrene	*	130.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Naphthalene, 2,3,6-trimethyl-	*	230.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Naphthalene, 2,3-dimethyl-	*	160.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Naphthalene, 2-phenyl-	*	110.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Perylene	*	7,300.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Phenanthrene, 1-methyl-	*	200.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Phenanthrene, 2,5-dimethyl-	*	140.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Phenanthrene, 2-methyl-	*	140.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Pyrene, 1-methyl-	*	190.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Pyrene, 2-methyl-	*	240.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	unknown13.745	*	120.000	J	0	0	ug/Kg
Q1216-15	JPP-26.1-012825	SOIL	Fluoranthene, 2-methyl-	*	270.000	J	0	0	ug/Kg
			Total Tics :		**13,910.00**				
			Total Concentration:		**100,700.00**				
Client ID :	**JPP-26.1-012825DL**								
Q1216-15DL	JPP-26.1-012825DL	SOIL	Phenanthrene		6,800.000	D	510	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Anthracene		1,900.000	D	510	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Fluoranthene		15,100.000	D	490	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Pyrene		12,000.000	D	500	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Benzo(a)anthracene		9,200.000	D	490	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Chrysene		7,100.000	D	480	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Benzo(b)fluoranthene		9,500.000	D	490	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Benzo(k)fluoranthene		4,300.000	D	500	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Benzo(a)pyrene		8,400.000	D	560	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Indeno(1,2,3-cd)pyrene		3,500.000	D	470	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Dibenzo(a,h)anthracene		970.000	JD	490	1000	ug/Kg
Q1216-15DL	JPP-26.1-012825DL	SOIL	Benzo(g,h,i)perylene		3,700.000	D	480	1000	ug/Kg
			Total Svoc :		**82,470.00**				
			Total Concentration:		**82,470.00**				
Client ID :	**JPP-26.2-012825**								
Q1216-19	JPP-26.2-012825	SOIL	Phenanthrene		1,900.000		200	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Anthracene		470.000		200	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Fluoranthene		3,100.000		190	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Pyrene		2,000.000		190	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Benzo(a)anthracene		1,300.000		190	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Chrysene		1,200.000		180	400	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1216-19	JPP-26.2-012825	SOIL	Benzo(b)fluoranthene		1,600.000		190	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Benzo(k)fluoranthene		560.000		190	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Benzo(a)pyrene		1,400.000		220	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Indeno(1,2,3-cd)pyrene		550.000		180	400	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Benzo(g,h,i)perylene		650.000		190	400	ug/Kg
			Total Svoc :		**14,730.00**				
Q1216-19	JPP-26.2-012825	SOIL	Pyrene, 1-methyl-	*	160.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Pyrene, 2-methyl-	*	320.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Naphthalene, 2-phenyl-	*	210.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Phenanthrene, 2-methyl-	*	470.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	4b,8-Dimethyl-2-isopropylphenan	*	220.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	4H-Cyclopenta[def]phenanthrene	*	550.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Anthracene, 9-methyl-	*	220.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Benzo[e]pyrene	*	1,100.000	J	0	0	ug/Kg
Q1216-19	JPP-26.2-012825	SOIL	Benzophenone	*	190.000	J	0	0	ug/Kg
			Total Tics :		**3,440.00**				
			Total Concentration:		**18,170.00**				

SAMPLE DATA

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	83.3
Sample Wt/Vol:	30.08 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
BF141517.D	1	01/30/25 09:15	02/07/25 19:28	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	400	U	220	400	ug/Kg
108-95-2	Phenol	200	U	99.3	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	200	U	100	200	ug/Kg
95-57-8	2-Chlorophenol	200	U	100	200	ug/Kg
95-48-7	2-Methylphenol	200	U	96.5	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	200	U	110	200	ug/Kg
98-86-2	Acetophenone	200	U	100	200	ug/Kg
65794-96-9	3+4-Methylphenols	400	U	95.5	400	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	95.8	U	48.3	95.8	ug/Kg
67-72-1	Hexachloroethane	200	U	99.4	200	ug/Kg
98-95-3	Nitrobenzene	200	U	110	200	ug/Kg
78-59-1	Isophorone	200	U	100	200	ug/Kg
88-75-5	2-Nitrophenol	200	U	110	200	ug/Kg
105-67-9	2,4-Dimethylphenol	200	U	110	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	200	U	100	200	ug/Kg
120-83-2	2,4-Dichlorophenol	200	U	90.4	200	ug/Kg
91-20-3	Naphthalene	200	U	98.9	200	ug/Kg
106-47-8	4-Chloroaniline	200	U	98.9	200	ug/Kg
87-68-3	Hexachlorobutadiene	200	U	99.7	200	ug/Kg
105-60-2	Caprolactam	400	U	100	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	200	U	92.8	200	ug/Kg
91-57-6	2-Methylnaphthalene	200	U	98.8	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	400	UQ	190	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	200	U	85.5	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	200	U	88.6	200	ug/Kg
92-52-4	1,1-Biphenyl	200	U	100	200	ug/Kg
91-58-7	2-Chloronaphthalene	200	U	99.7	200	ug/Kg
88-74-4	2-Nitroaniline	200	U	110	200	ug/Kg
131-11-3	Dimethylphthalate	200	U	97.8	200	ug/Kg

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	83.3
Sample Wt/Vol:	30.08 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
BF141517.D	1	01/30/25 09:15	02/07/25 19:28	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	200	U	100	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	200	U	99.6	200	ug/Kg
99-09-2	3-Nitroaniline	200	U	110	200	ug/Kg
83-32-9	Acenaphthene	250		97.1	200	ug/Kg
51-28-5	2,4-Dinitrophenol	400	U	290	400	ug/Kg
100-02-7	4-Nitrophenol	400	U	140	400	ug/Kg
132-64-9	Dibenzofuran	100	J	100	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	200	U	100	200	ug/Kg
84-66-2	Diethylphthalate	200	U	95.9	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	200	U	100	200	ug/Kg
86-73-7	Fluorene	220		100	200	ug/Kg
100-01-6	4-Nitroaniline	200	U	130	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	400	U	140	400	ug/Kg
86-30-6	n-Nitrosodiphenylamine	200	U	97.7	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	200	U	94.5	200	ug/Kg
118-74-1	Hexachlorobenzene	200	U	100	200	ug/Kg
1912-24-9	Atrazine	200	U	110	200	ug/Kg
87-86-5	Pentachlorophenol	400	U	92.6	400	ug/Kg
85-01-8	Phenanthrene	2600		100	200	ug/Kg
120-12-7	Anthracene	620		100	200	ug/Kg
86-74-8	Carbazole	100	J	96.1	200	ug/Kg
84-74-2	Di-n-butylphthalate	200	U	100	200	ug/Kg
206-44-0	Fluoranthene	2800		97.8	200	ug/Kg
129-00-0	Pyrene	2900		99.4	200	ug/Kg
85-68-7	Butylbenzylphthalate	200	U	120	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	400	UQ	120	400	ug/Kg
56-55-3	Benzo(a)anthracene	1500		96.6	200	ug/Kg
218-01-9	Chrysene	1300		95.2	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	110	J	110	200	ug/Kg
117-84-0	Di-n-octyl phthalate	400	U	130	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	1300		97.1	200	ug/Kg

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	83.3
Sample Wt/Vol:	30.08 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
BF141517.D	1	01/30/25 09:15	02/07/25 19:28	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	650		98.9	200	ug/Kg
50-32-8	Benzo(a)pyrene	1300		110	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	560		93.5	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	180	J	97.2	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	650		95.9	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U	100	200	ug/Kg
123-91-1	1,4-Dioxane	200	U	130	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	200	U	89.4	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	114		18 - 112	76%	SPK: 150
13127-88-3	Phenol-d6	112		15 - 107	74%	SPK: 150
4165-60-0	Nitrobenzene-d5	79.6		18 - 107	80%	SPK: 100
321-60-8	2-Fluorobiphenyl	77.9		20 - 109	78%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 116	67%	SPK: 150
1718-51-0	Terphenyl-d14	73.5		10 - 105	73%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82200	6.792			
1146-65-2	Naphthalene-d8	319000	8.075			
15067-26-2	Acenaphthene-d10	157000	9.828			
1517-22-2	Phenanthrene-d10	230000	11.316			
1719-03-5	Chrysene-d12	151000	13.963			
1520-96-3	Perylene-d12	115000	15.427			
TENTATIVE IDENTIFIED COMPOUNDS						
062016-37-9	Octane, 2,4,6-trimethyl-	90.6	J		9.23	ug/Kg
000581-40-8	Naphthalene, 2,3-dimethyl-	100	J		9.49	ug/Kg
001855-47-6	1-Isopropenylnaphthalene	90.6	J		10.4	ug/Kg
000119-61-9	Benzophenone	220	J		10.5	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	99.8	J		11.8	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	250	J		11.8	ug/Kg
000090-60-8	Benzaldehyde, 3,5-dichloro-2-hydro	230	J		11.9	ug/Kg

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	83.3
Sample Wt/Vol:	30.08 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
BF141517.D	1	01/30/25 09:15	02/07/25 19:28	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
002381-21-7	Pyrene, 1-methyl-	150	J		13.0	ug/Kg
066552-97-4	2-Isopropyl-10-methylphenanthrene	150	J		13.0	ug/Kg
003353-12-6	Pyrene, 4-methyl-	150	J		13.2	ug/Kg
000479-79-8	11H-Benzo[a]fluoren-11-one	99.0	J		13.8	ug/Kg
000192-97-2	Benzo[e]pyrene	920	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	90.4
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
BF141516.D	1	01/30/25 09:15	02/07/25 19:02	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	360	U	200	360	ug/Kg
108-95-2	Phenol	190	U	91.5	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	190	U	92.4	190	ug/Kg
95-57-8	2-Chlorophenol	190	U	92.2	190	ug/Kg
95-48-7	2-Methylphenol	190	U	89.0	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	190	U	100	190	ug/Kg
98-86-2	Acetophenone	190	U	95.9	190	ug/Kg
65794-96-9	3+4-Methylphenols	360	U	88.1	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	88.3	U	44.5	88.3	ug/Kg
67-72-1	Hexachloroethane	190	U	91.6	190	ug/Kg
98-95-3	Nitrobenzene	190	U	100	190	ug/Kg
78-59-1	Isophorone	190	U	93.4	190	ug/Kg
88-75-5	2-Nitrophenol	190	U	100	190	ug/Kg
105-67-9	2,4-Dimethylphenol	190	U	100	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	190	U	94.7	190	ug/Kg
120-83-2	2,4-Dichlorophenol	190	U	83.4	190	ug/Kg
91-20-3	Naphthalene	190	U	91.2	190	ug/Kg
106-47-8	4-Chloroaniline	190	U	91.2	190	ug/Kg
87-68-3	Hexachlorobutadiene	190	U	92.0	190	ug/Kg
105-60-2	Caprolactam	360	U	95.8	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	190	U	85.6	190	ug/Kg
91-57-6	2-Methylnaphthalene	190	U	91.1	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	360	UQ	170	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	190	U	78.8	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	190	U	81.7	190	ug/Kg
92-52-4	1,1-Biphenyl	190	U	96.5	190	ug/Kg
91-58-7	2-Chloronaphthalene	190	U	92.0	190	ug/Kg
88-74-4	2-Nitroaniline	190	U	100	190	ug/Kg
131-11-3	Dimethylphthalate	190	U	90.2	190	ug/Kg

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	90.4
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
BF141516.D	1	01/30/25 09:15	02/07/25 19:02	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	190	U	95.5	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	190	U	91.9	190	ug/Kg
99-09-2	3-Nitroaniline	190	U	98.5	190	ug/Kg
83-32-9	Acenaphthene	93.4	J	89.5	190	ug/Kg
51-28-5	2,4-Dinitrophenol	360	U	270	360	ug/Kg
100-02-7	4-Nitrophenol	360	U	130	360	ug/Kg
132-64-9	Dibenzofuran	190	U	93.2	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	190	U	95.2	190	ug/Kg
84-66-2	Diethylphthalate	190	U	88.4	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	190	U	94.5	190	ug/Kg
86-73-7	Fluorene	190	U	94.4	190	ug/Kg
100-01-6	4-Nitroaniline	190	U	120	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	360	U	130	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	190	U	90.1	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	190	U	87.1	190	ug/Kg
118-74-1	Hexachlorobenzene	190	U	93.8	190	ug/Kg
1912-24-9	Atrazine	190	U	100	190	ug/Kg
87-86-5	Pentachlorophenol	360	U	85.3	360	ug/Kg
85-01-8	Phenanthrene	1100		92.7	190	ug/Kg
120-12-7	Anthracene	290		93.2	190	ug/Kg
86-74-8	Carbazole	190	U	88.7	190	ug/Kg
84-74-2	Di-n-butylphthalate	190	U	93.1	190	ug/Kg
206-44-0	Fluoranthene	2200		90.2	190	ug/Kg
129-00-0	Pyrene	2200		91.6	190	ug/Kg
85-68-7	Butylbenzylphthalate	190	U	110	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	360	UQ	110	360	ug/Kg
56-55-3	Benzo(a)anthracene	1300		89.1	190	ug/Kg
218-01-9	Chrysene	1100		87.8	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	190	U	100	190	ug/Kg
117-84-0	Di-n-octyl phthalate	360	U	120	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		89.5	190	ug/Kg

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	90.4
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
BF141516.D	1	01/30/25 09:15	02/07/25 19:02	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	560		91.2	190	ug/Kg
50-32-8	Benzo(a)pyrene	1300		100	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	590		86.2	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	190		89.6	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	690		88.4	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	190	U	95.8	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	82.5	190	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	72.7		18 - 112	48%	SPK: 150
13127-88-3	Phenol-d6	69.9		15 - 107	47%	SPK: 150
4165-60-0	Nitrobenzene-d5	49.8		18 - 107	50%	SPK: 100
321-60-8	2-Fluorobiphenyl	51.8		20 - 109	52%	SPK: 100
118-79-6	2,4,6-Tribromophenol	62.4		10 - 116	42%	SPK: 150
1718-51-0	Terphenyl-d14	46.3		10 - 105	46%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	86300	6.792			
1146-65-2	Naphthalene-d8	330000	8.069			
15067-26-2	Acenaphthene-d10	157000	9.828			
1517-22-2	Phenanthrene-d10	229000	11.316			
1719-03-5	Chrysene-d12	157000	13.963			
1520-96-3	Perylene-d12	121000	15.427			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	170	J		10.5	ug/Kg
	unknown11.175	83.5	J		11.2	ug/Kg
000233-02-3	Naphtho[2,1-b]thiophene	75.1	J		11.2	ug/Kg
007599-23-7	1,1-Biphenyl, 2-azido-	140	J		11.6	ug/Kg
000605-02-7	Naphthalene, 1-phenyl-	82.4	J		11.6	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	200	J		11.8	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	450	J		11.8	ug/Kg

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	90.4
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
BF141516.D	1	01/30/25 09:15	02/07/25 19:02	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000949-41-7	1H-Cyclopropa[l]phenanthrene,1a,9b	140	J		11.9	ug/Kg
000090-60-8	Benzaldehyde, 3,5-dichloro-2-hydro	540	J		11.9	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	230	J		12.1	ug/Kg
000084-65-1	9,10-Anthracenedione	80.6	J		12.1	ug/Kg
003674-69-9	Phenanthrene, 4,5-dimethyl-	74.7	J		12.3	ug/Kg
003674-66-6	Phenanthrene, 2,5-dimethyl-	190	J		12.4	ug/Kg
	unknown12.404	150	J		12.4	ug/Kg
005737-13-3	Cyclopenta(def)phenanthrenone	170	J		12.5	ug/Kg
002381-21-7	Pyrene, 1-methyl-	120	J		13.0	ug/Kg
033543-31-6	Fluoranthene, 2-methyl-	140	J		13.1	ug/Kg
003442-78-2	Pyrene, 2-methyl-	110	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	960	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.3
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
BF141392.D	2	01/30/25 09:15	02/04/25 01:42	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	780	U	430	780	ug/Kg
108-95-2	Phenol	400	U	200	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	400	U	200	400	ug/Kg
95-57-8	2-Chlorophenol	400	U	200	400	ug/Kg
95-48-7	2-Methylphenol	400	U	190	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	400	U	220	400	ug/Kg
98-86-2	Acetophenone	400	U	210	400	ug/Kg
65794-96-9	3+4-Methylphenols	780	U	190	780	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	190	U	95.5	190	ug/Kg
67-72-1	Hexachloroethane	400	U	200	400	ug/Kg
98-95-3	Nitrobenzene	400	U	220	400	ug/Kg
78-59-1	Isophorone	400	U	200	400	ug/Kg
88-75-5	2-Nitrophenol	400	U	220	400	ug/Kg
105-67-9	2,4-Dimethylphenol	400	U	220	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	400	U	200	400	ug/Kg
120-83-2	2,4-Dichlorophenol	400	U	180	400	ug/Kg
91-20-3	Naphthalene	400	U	200	400	ug/Kg
106-47-8	4-Chloroaniline	400	U	200	400	ug/Kg
87-68-3	Hexachlorobutadiene	400	U	200	400	ug/Kg
105-60-2	Caprolactam	780	U	210	780	ug/Kg
59-50-7	4-Chloro-3-methylphenol	400	U	180	400	ug/Kg
91-57-6	2-Methylnaphthalene	400	U	200	400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	780	UQ	370	780	ug/Kg
88-06-2	2,4,6-Trichlorophenol	400	U	170	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	400	U	180	400	ug/Kg
92-52-4	1,1-Biphenyl	400	U	210	400	ug/Kg
91-58-7	2-Chloronaphthalene	400	U	200	400	ug/Kg
88-74-4	2-Nitroaniline	400	U	230	400	ug/Kg
131-11-3	Dimethylphthalate	400	U	190	400	ug/Kg

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.3
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
BF141392.D	2	01/30/25 09:15	02/04/25 01:42	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	400	U	210	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	400	U	200	400	ug/Kg
99-09-2	3-Nitroaniline	400	U	210	400	ug/Kg
83-32-9	Acenaphthene	400	U	190	400	ug/Kg
51-28-5	2,4-Dinitrophenol	780	U	580	780	ug/Kg
100-02-7	4-Nitrophenol	780	U	280	780	ug/Kg
132-64-9	Dibenzofuran	400	U	200	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	400	U	200	400	ug/Kg
84-66-2	Diethylphthalate	400	U	190	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	400	U	200	400	ug/Kg
86-73-7	Fluorene	400	U	200	400	ug/Kg
100-01-6	4-Nitroaniline	400	U	250	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	780	U	280	780	ug/Kg
86-30-6	n-Nitrosodiphenylamine	400	U	190	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	400	U	190	400	ug/Kg
118-74-1	Hexachlorobenzene	400	U	200	400	ug/Kg
1912-24-9	Atrazine	400	U	220	400	ug/Kg
87-86-5	Pentachlorophenol	780	U	180	780	ug/Kg
85-01-8	Phenanthrene	2000		200	400	ug/Kg
120-12-7	Anthracene	570		200	400	ug/Kg
86-74-8	Carbazole	220	J	190	400	ug/Kg
84-74-2	Di-n-butylphthalate	400	U	200	400	ug/Kg
206-44-0	Fluoranthene	3000		190	400	ug/Kg
129-00-0	Pyrene	1900		200	400	ug/Kg
85-68-7	Butylbenzylphthalate	400	U	230	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	780	UQ	230	780	ug/Kg
56-55-3	Benzo(a)anthracene	1200		190	400	ug/Kg
218-01-9	Chrysene	1100		190	400	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	400	U	220	400	ug/Kg
117-84-0	Di-n-octyl phthalate	780	U	260	780	ug/Kg
205-99-2	Benzo(b)fluoranthene	1500		190	400	ug/Kg

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.3
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
BF141392.D	2	01/30/25 09:15	02/04/25 01:42	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	530		200	400	ug/Kg
50-32-8	Benzo(a)pyrene	1200		220	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	530		190	400	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	400	U	190	400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	600		190	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	400	U	210	400	ug/Kg
123-91-1	1,4-Dioxane	400	U	260	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	400	U	180	400	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	84.5		18 - 112	56%	SPK: 150
13127-88-3	Phenol-d6	79.6		15 - 107	53%	SPK: 150
4165-60-0	Nitrobenzene-d5	59.9		18 - 107	60%	SPK: 100
321-60-8	2-Fluorobiphenyl	61.5		20 - 109	61%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.0		10 - 116	53%	SPK: 150
1718-51-0	Terphenyl-d14	46.3		10 - 105	46%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	78100	6.792			
1146-65-2	Naphthalene-d8	291000	8.075			
15067-26-2	Acenaphthene-d10	134000	9.828			
1517-22-2	Phenanthrene-d10	196000	11.316			
1719-03-5	Chrysene-d12	150000	13.957			
1520-96-3	Perylene-d12	108000	15.404			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	170	J		10.5	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	200	J		11.8	ug/Kg
004505-48-0	1H-Indene, 2-phenyl-	550	J		11.8	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	520	J		11.9	ug/Kg
005672-97-9	5,16[1,2]:8,13[1,2]-Dibenzen	170	J		12.1	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	170	J		13.0	ug/Kg
002381-21-7	Pyrene, 1-methyl-	160	J		13.1	ug/Kg

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.3
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
BF141392.D	2	01/30/25 09:15	02/04/25 01:42	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
003353-12-6	Pyrene, 4-methyl-	190	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	870	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141520.D	1	01/30/25 09:15	02/07/25 20:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	400	U	220	400	ug/Kg
108-95-2	Phenol	200	U	100	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	200	U	100	200	ug/Kg
95-57-8	2-Chlorophenol	200	U	100	200	ug/Kg
95-48-7	2-Methylphenol	200	U	97.2	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	200	U	110	200	ug/Kg
98-86-2	Acetophenone	200	U	100	200	ug/Kg
65794-96-9	3+4-Methylphenols	400	U	96.2	400	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	96.5	U	48.6	96.5	ug/Kg
67-72-1	Hexachloroethane	200	U	100	200	ug/Kg
98-95-3	Nitrobenzene	200	U	110	200	ug/Kg
78-59-1	Isophorone	200	U	100	200	ug/Kg
88-75-5	2-Nitrophenol	200	U	110	200	ug/Kg
105-67-9	2,4-Dimethylphenol	200	U	110	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	200	U	100	200	ug/Kg
120-83-2	2,4-Dichlorophenol	200	U	91.0	200	ug/Kg
91-20-3	Naphthalene	200	U	99.6	200	ug/Kg
106-47-8	4-Chloroaniline	200	U	99.6	200	ug/Kg
87-68-3	Hexachlorobutadiene	200	U	100	200	ug/Kg
105-60-2	Caprolactam	400	U	100	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	200	U	93.4	200	ug/Kg
91-57-6	2-Methylnaphthalene	200	U	99.5	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	400	UQ	190	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	200	U	86.1	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	200	U	89.2	200	ug/Kg
92-52-4	1,1-Biphenyl	200	U	110	200	ug/Kg
91-58-7	2-Chloronaphthalene	200	U	100	200	ug/Kg
88-74-4	2-Nitroaniline	200	U	110	200	ug/Kg
131-11-3	Dimethylphthalate	200	U	98.5	200	ug/Kg

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141520.D	1	01/30/25 09:15	02/07/25 20:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	200	U	100	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	200	U	100	200	ug/Kg
99-09-2	3-Nitroaniline	200	U	110	200	ug/Kg
83-32-9	Acenaphthene	520		97.8	200	ug/Kg
51-28-5	2,4-Dinitrophenol	400	U	290	400	ug/Kg
100-02-7	4-Nitrophenol	400	U	140	400	ug/Kg
132-64-9	Dibenzofuran	160	J	100	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	200	U	100	200	ug/Kg
84-66-2	Diethylphthalate	200	U	96.6	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	200	U	100	200	ug/Kg
86-73-7	Fluorene	360		100	200	ug/Kg
100-01-6	4-Nitroaniline	200	U	130	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	400	U	140	400	ug/Kg
86-30-6	n-Nitrosodiphenylamine	200	U	98.4	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	200	U	95.1	200	ug/Kg
118-74-1	Hexachlorobenzene	200	U	100	200	ug/Kg
1912-24-9	Atrazine	200	U	110	200	ug/Kg
87-86-5	Pentachlorophenol	400	U	93.2	400	ug/Kg
85-01-8	Phenanthrene	6500	E	100	200	ug/Kg
120-12-7	Anthracene	2000		100	200	ug/Kg
86-74-8	Carbazole	200		96.8	200	ug/Kg
84-74-2	Di-n-butylphthalate	200	U	100	200	ug/Kg
206-44-0	Fluoranthene	13500	E	98.5	200	ug/Kg
129-00-0	Pyrene	15500	E	100	200	ug/Kg
85-68-7	Butylbenzylphthalate	200	U	120	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	400	UQ	120	400	ug/Kg
56-55-3	Benzo(a)anthracene	9700	E	97.3	200	ug/Kg
218-01-9	Chrysene	7400	E	95.9	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	150	J	110	200	ug/Kg
117-84-0	Di-n-octyl phthalate	400	U	130	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	9200	E	97.8	200	ug/Kg

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141520.D	1	01/30/25 09:15	02/07/25 20:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	3600	E	99.6	200	ug/Kg
50-32-8	Benzo(a)pyrene	8300	E	110	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	4000	E	94.2	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1200		97.9	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	4500	E	96.6	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U	100	200	ug/Kg
123-91-1	1,4-Dioxane	200	U	130	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	200	U	90.1	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	99.3		18 - 112	66%	SPK: 150
13127-88-3	Phenol-d6	97.3		15 - 107	65%	SPK: 150
4165-60-0	Nitrobenzene-d5	69.1		18 - 107	69%	SPK: 100
321-60-8	2-Fluorobiphenyl	65.1		20 - 109	65%	SPK: 100
118-79-6	2,4,6-Tribromophenol	86.5		10 - 116	58%	SPK: 150
1718-51-0	Terphenyl-d14	64.6		10 - 105	65%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	71000	6.792			
1146-65-2	Naphthalene-d8	270000	8.075			
15067-26-2	Acenaphthene-d10	131000	9.828			
1517-22-2	Phenanthrene-d10	198000	11.316			
1719-03-5	Chrysene-d12	118000	13.974			
1520-96-3	Perylene-d12	102000	15.433			
TENTATIVE IDENTIFIED COMPOUNDS						
000581-40-8	Naphthalene, 2,3-dimethyl-	160	J		9.49	ug/Kg
000829-26-5	Naphthalene, 2,3,6-trimethyl-	230	J		10.2	ug/Kg
002320-32-3	Benzene, [1-(2,4-cyclopentadien-1-	270	J		10.4	ug/Kg
000119-61-9	Benzophenone	440	J		10.5	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	140	J		11.8	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	200	J		11.9	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	380	J		11.9	ug/Kg

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141520.D	1	01/30/25 09:15	02/07/25 20:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000612-94-2	Naphthalene, 2-phenyl-	110	J		12.1	ug/Kg
003674-66-6	Phenanthrene, 2,5-dimethyl-	140	J		12.4	ug/Kg
005737-13-3	Cyclopenta(def)phenanthrenone	130	J		12.5	ug/Kg
002381-21-7	Pyrene, 1-methyl-	190	J		13.0	ug/Kg
033543-31-6	Fluoranthene, 2-methyl-	270	J		13.1	ug/Kg
003442-78-2	Pyrene, 2-methyl-	240	J		13.2	ug/Kg
000479-79-8	11H-Benzo[a]fluoren-11-one	130	J		13.6	ug/Kg
000239-35-0	Benzo[b]naphtho[2,1-d]thiophene	130	J		13.7	ug/Kg
	unknown13.745	120	J		13.7	ug/Kg
027208-37-3	Cyclopenta[cd]pyrene	130	J		13.8	ug/Kg
000477-75-8	9,10[1,2]-Benzenoanthracene, 9,1	1200	J		14.8	ug/Kg
000192-97-2	Benzo[e]pyrene	2000	J		15.1	ug/Kg
000198-55-0	Perylene	7300	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825DL	SDG No.:	Q1216
Lab Sample ID:	Q1216-15DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141548.D	5	01/30/25 09:15	02/10/25 21:12	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	2000	UD	1100	2000	ug/Kg
108-95-2	Phenol	1000	UD	500	1000	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1000	UD	500	1000	ug/Kg
95-57-8	2-Chlorophenol	1000	UD	500	1000	ug/Kg
95-48-7	2-Methylphenol	1000	UD	490	1000	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1000	UD	550	1000	ug/Kg
98-86-2	Acetophenone	1000	UD	520	1000	ug/Kg
65794-96-9	3+4-Methylphenols	2000	UD	480	2000	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	480	UD	240	480	ug/Kg
67-72-1	Hexachloroethane	1000	UD	500	1000	ug/Kg
98-95-3	Nitrobenzene	1000	UD	550	1000	ug/Kg
78-59-1	Isophorone	1000	UD	510	1000	ug/Kg
88-75-5	2-Nitrophenol	1000	UD	570	1000	ug/Kg
105-67-9	2,4-Dimethylphenol	1000	UD	560	1000	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1000	UD	520	1000	ug/Kg
120-83-2	2,4-Dichlorophenol	1000	UD	460	1000	ug/Kg
91-20-3	Naphthalene	1000	UD	500	1000	ug/Kg
106-47-8	4-Chloroaniline	1000	UD	500	1000	ug/Kg
87-68-3	Hexachlorobutadiene	1000	UD	500	1000	ug/Kg
105-60-2	Caprolactam	2000	UD	520	2000	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1000	UD	470	1000	ug/Kg
91-57-6	2-Methylnaphthalene	1000	UD	500	1000	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2000	UDQ	940	2000	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1000	UD	430	1000	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1000	UD	450	1000	ug/Kg
92-52-4	1,1-Biphenyl	1000	UD	530	1000	ug/Kg
91-58-7	2-Chloronaphthalene	1000	UD	500	1000	ug/Kg
88-74-4	2-Nitroaniline	1000	UD	570	1000	ug/Kg
131-11-3	Dimethylphthalate	1000	UD	490	1000	ug/Kg

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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-26.1-012825DL	SDG No.:	Q1216
Lab Sample ID:	Q1216-15DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141548.D	5	01/30/25 09:15	02/10/25 21:12	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1000	UD	520	1000	ug/Kg
606-20-2	2,6-Dinitrotoluene	1000	UD	500	1000	ug/Kg
99-09-2	3-Nitroaniline	1000	UD	540	1000	ug/Kg
83-32-9	Acenaphthene	1000	UD	490	1000	ug/Kg
51-28-5	2,4-Dinitrophenol	2000	UD	1500	2000	ug/Kg
100-02-7	4-Nitrophenol	2000	UD	700	2000	ug/Kg
132-64-9	Dibenzofuran	1000	UD	510	1000	ug/Kg
121-14-2	2,4-Dinitrotoluene	1000	UD	520	1000	ug/Kg
84-66-2	Diethylphthalate	1000	UD	480	1000	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1000	UD	520	1000	ug/Kg
86-73-7	Fluorene	1000	UD	520	1000	ug/Kg
100-01-6	4-Nitroaniline	1000	UD	650	1000	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	2000	UD	710	2000	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1000	UD	490	1000	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000	UD	480	1000	ug/Kg
118-74-1	Hexachlorobenzene	1000	UD	510	1000	ug/Kg
1912-24-9	Atrazine	1000	UD	550	1000	ug/Kg
87-86-5	Pentachlorophenol	2000	UD	470	2000	ug/Kg
85-01-8	Phenanthrene	6800	D	510	1000	ug/Kg
120-12-7	Anthracene	1900	D	510	1000	ug/Kg
86-74-8	Carbazole	1000	UD	480	1000	ug/Kg
84-74-2	Di-n-butylphthalate	1000	UD	510	1000	ug/Kg
206-44-0	Fluoranthene	15100	D	490	1000	ug/Kg
129-00-0	Pyrene	12000	D	500	1000	ug/Kg
85-68-7	Butylbenzylphthalate	1000	UD	580	1000	ug/Kg
91-94-1	3,3-Dichlorobenzidine	2000	UDQ	590	2000	ug/Kg
56-55-3	Benzo(a)anthracene	9200	D	490	1000	ug/Kg
218-01-9	Chrysene	7100	D	480	1000	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1000	UD	550	1000	ug/Kg
117-84-0	Di-n-octyl phthalate	2000	UD	660	2000	ug/Kg
205-99-2	Benzo(b)fluoranthene	9500	D	490	1000	ug/Kg

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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-26.1-012825DL	SDG No.:	Q1216
Lab Sample ID:	Q1216-15DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	82.8
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
BF141548.D	5	01/30/25 09:15	02/10/25 21:12	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	4300	D	500	1000	ug/Kg
50-32-8	Benzo(a)pyrene	8400	D	560	1000	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	3500	D	470	1000	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	970	JD	490	1000	ug/Kg
191-24-2	Benzo(g,h,i)perylene	3700	D	480	1000	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1000	UD	520	1000	ug/Kg
123-91-1	1,4-Dioxane	1000	UD	660	1000	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1000	UD	450	1000	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	94.1		18 - 112	63%	SPK: 150
13127-88-3	Phenol-d6	92.0		15 - 107	61%	SPK: 150
4165-60-0	Nitrobenzene-d5	64.0		18 - 107	64%	SPK: 100
321-60-8	2-Fluorobiphenyl	62.7		20 - 109	63%	SPK: 100
118-79-6	2,4,6-Tribromophenol	70.0		10 - 116	47%	SPK: 150
1718-51-0	Terphenyl-d14	41.9		10 - 105	42%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	74000	6.786			
1146-65-2	Naphthalene-d8	290000	8.069			
15067-26-2	Acenaphthene-d10	145000	9.822			
1517-22-2	Phenanthrene-d10	197000	11.31			
1719-03-5	Chrysene-d12	175000	13.951			
1520-96-3	Perylene-d12	154000	15.409			

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.8
Sample Wt/Vol:	30.07 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
BF141391.D	2	01/30/25 09:15	02/04/25 01:16	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	770	U	420	770	ug/Kg
108-95-2	Phenol	400	U	190	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	400	U	190	400	ug/Kg
95-57-8	2-Chlorophenol	400	U	190	400	ug/Kg
95-48-7	2-Methylphenol	400	U	190	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	400	U	210	400	ug/Kg
98-86-2	Acetophenone	400	U	200	400	ug/Kg
65794-96-9	3+4-Methylphenols	770	U	190	770	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	190	U	93.7	190	ug/Kg
67-72-1	Hexachloroethane	400	U	190	400	ug/Kg
98-95-3	Nitrobenzene	400	U	210	400	ug/Kg
78-59-1	Isophorone	400	U	200	400	ug/Kg
88-75-5	2-Nitrophenol	400	U	220	400	ug/Kg
105-67-9	2,4-Dimethylphenol	400	U	220	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	400	U	200	400	ug/Kg
120-83-2	2,4-Dichlorophenol	400	U	180	400	ug/Kg
91-20-3	Naphthalene	400	U	190	400	ug/Kg
106-47-8	4-Chloroaniline	400	U	190	400	ug/Kg
87-68-3	Hexachlorobutadiene	400	U	190	400	ug/Kg
105-60-2	Caprolactam	770	U	200	770	ug/Kg
59-50-7	4-Chloro-3-methylphenol	400	U	180	400	ug/Kg
91-57-6	2-Methylnaphthalene	400	U	190	400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	770	UQ	360	770	ug/Kg
88-06-2	2,4,6-Trichlorophenol	400	U	170	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	400	U	170	400	ug/Kg
92-52-4	1,1-Biphenyl	400	U	200	400	ug/Kg
91-58-7	2-Chloronaphthalene	400	U	190	400	ug/Kg
88-74-4	2-Nitroaniline	400	U	220	400	ug/Kg
131-11-3	Dimethylphthalate	400	U	190	400	ug/Kg

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.8
Sample Wt/Vol:	30.07 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
BF141391.D	2	01/30/25 09:15	02/04/25 01:16	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	400	U	200	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	400	U	190	400	ug/Kg
99-09-2	3-Nitroaniline	400	U	210	400	ug/Kg
83-32-9	Acenaphthene	400	U	190	400	ug/Kg
51-28-5	2,4-Dinitrophenol	770	U	570	770	ug/Kg
100-02-7	4-Nitrophenol	770	U	270	770	ug/Kg
132-64-9	Dibenzofuran	400	U	200	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	400	U	200	400	ug/Kg
84-66-2	Diethylphthalate	400	U	190	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	400	U	200	400	ug/Kg
86-73-7	Fluorene	400	U	200	400	ug/Kg
100-01-6	4-Nitroaniline	400	U	250	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	770	U	270	770	ug/Kg
86-30-6	n-Nitrosodiphenylamine	400	U	190	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	400	U	180	400	ug/Kg
118-74-1	Hexachlorobenzene	400	U	200	400	ug/Kg
1912-24-9	Atrazine	400	U	210	400	ug/Kg
87-86-5	Pentachlorophenol	770	U	180	770	ug/Kg
85-01-8	Phenanthrene	1900		200	400	ug/Kg
120-12-7	Anthracene	470		200	400	ug/Kg
86-74-8	Carbazole	400	U	190	400	ug/Kg
84-74-2	Di-n-butylphthalate	400	U	200	400	ug/Kg
206-44-0	Fluoranthene	3100		190	400	ug/Kg
129-00-0	Pyrene	2000		190	400	ug/Kg
85-68-7	Butylbenzylphthalate	400	U	230	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	770	UQ	230	770	ug/Kg
56-55-3	Benzo(a)anthracene	1300		190	400	ug/Kg
218-01-9	Chrysene	1200		180	400	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	400	U	210	400	ug/Kg
117-84-0	Di-n-octyl phthalate	770	U	260	770	ug/Kg
205-99-2	Benzo(b)fluoranthene	1600		190	400	ug/Kg

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.8
Sample Wt/Vol:	30.07 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
BF141391.D	2	01/30/25 09:15	02/04/25 01:16	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	560		190	400	ug/Kg
50-32-8	Benzo(a)pyrene	1400		220	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	550		180	400	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	400	U	190	400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	650		190	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	400	U	200	400	ug/Kg
123-91-1	1,4-Dioxane	400	U	260	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	400	U	170	400	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	81.6		18 - 112	54%	SPK: 150
13127-88-3	Phenol-d6	78.7		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	60.3		18 - 107	60%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.5		20 - 109	66%	SPK: 100
118-79-6	2,4,6-Tribromophenol	57.9		10 - 116	39%	SPK: 150
1718-51-0	Terphenyl-d14	45.1		10 - 105	45%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	84000	6.792			
1146-65-2	Naphthalene-d8	310000	8.075			
15067-26-2	Acenaphthene-d10	144000	9.828			
1517-22-2	Phenanthrene-d10	204000	11.316			
1719-03-5	Chrysene-d12	172000	13.957			
1520-96-3	Perylene-d12	128000	15.404			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	190	J		10.5	ug/Kg
000779-02-2	Anthracene, 9-methyl-	220	J		11.8	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	470	J		11.8	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	550	J		11.9	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	210	J		12.1	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	220	J		12.3	ug/Kg
002381-21-7	Pyrene, 1-methyl-	160	J		13.0	ug/Kg

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.8
Sample Wt/Vol:	30.07 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
BF141391.D	2	01/30/25 09:15	02/04/25 01:16	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
003442-78-2	Pyrene, 2-methyl-	320	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	1100	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

Alliance TECHNICAL GROUP
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Surrogate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
PB166360BL	PB166360BL	2-Fluorophenol	150	147	98		18	112
		Phenol-d6	150	142	95		15	107
		Nitrobenzene-d5	100	101	101		18	107
		2-Fluorobiphenyl	100	100.0	100		20	109
		2,4,6-Tribromophenol	150	158	105		10	116
		Terphenyl-d14	100	93.3	93		10	105
PB166360BS	PB166360BS	2-Fluorophenol	150	134	89		18	112
		Phenol-d6	150	128	85		15	107
		Nitrobenzene-d5	100	92.7	93		18	107
		2-Fluorobiphenyl	100	94.8	95		20	109
		2,4,6-Tribromophenol	150	154	103		10	116
		Terphenyl-d14	100	85.1	85		10	105
Q1215-03MS	JPP-29.1-012825MS	2-Fluorophenol	150	96.4	64		18	112
		Phenol-d6	150	92.7	62		15	107
		Nitrobenzene-d5	100	72.2	72		18	107
		2-Fluorobiphenyl	100	73.2	73		20	109
		2,4,6-Tribromophenol	150	90.2	60		10	116
		Terphenyl-d14	100	59.0	59		10	105
Q1215-03MSD	JPP-29.1-012825MSD	2-Fluorophenol	150	94.8	63		18	112
		Phenol-d6	150	92.1	61		15	107
		Nitrobenzene-d5	100	68.4	68		18	107
		2-Fluorobiphenyl	100	70.6	71		20	109
		2,4,6-Tribromophenol	150	82.2	55		10	116
		Terphenyl-d14	100	56.0	56		10	105
Q1216-03	JPP-18.1-012825	2-Fluorophenol	150	114	76		18	112
		Phenol-d6	150	112	74		15	107
		Nitrobenzene-d5	100	79.6	80		18	107
		2-Fluorobiphenyl	100	77.9	78		20	109
		2,4,6-Tribromophenol	150	100	67		10	116
		Terphenyl-d14	100	73.5	73		10	105
Q1216-07	JPP-21.1-012825	2-Fluorophenol	150	72.7	48		18	112
		Phenol-d6	150	69.9	47		15	107
		Nitrobenzene-d5	100	49.8	50		18	107
		2-Fluorobiphenyl	100	51.8	52		20	109
		2,4,6-Tribromophenol	150	62.4	42		10	116
		Terphenyl-d14	100	46.3	46		10	105
Q1216-11	JPP-21.2-012825	2-Fluorophenol	150	84.5	56		18	112
		Phenol-d6	150	79.6	53		15	107
		Nitrobenzene-d5	100	59.9	60		18	107
		2-Fluorobiphenyl	100	61.5	61		20	109
		2,4,6-Tribromophenol	150	80.0	53		10	116
		Terphenyl-d14	100	46.3	46		10	105
Q1216-15	JPP-26.1-012825	2-Fluorophenol	150	99.3	66		18	112
		Phenol-d6	150	97.3	65		15	107
		Nitrobenzene-d5	100	69.1	69		18	107
		2-Fluorobiphenyl	100	65.1	65		20	109
		2,4,6-Tribromophenol	150	86.5	58		10	116
		Terphenyl-d14	100	64.6	65		10	105
Q1216-15DL	JPP-26.1-012825DL	2-Fluorophenol	150	94.1	63		18	112
		Phenol-d6	150	92.0	61		15	107
		Nitrobenzene-d5	100	64.0	64		18	107

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Surrogate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q1216-15DL	JPP-26.1-012825DL	2-Fluorobiphenyl	100	62.7	63		20	109
		2,4,6-Tribromophenol	150	70.0	47		10	116
		Terphenyl-d14	100	41.9	42		10	105
Q1216-19	JPP-26.2-012825	2-Fluorophenol	150	81.6	54		18	112
		Phenol-d6	150	78.7	52		15	107
		Nitrobenzene-d5	100	60.3	60		18	107
		2-Fluorobiphenyl	100	66.5	66		20	109
		2,4,6-Tribromophenol	150	57.9	39		10	116
		Terphenyl-d14	100	45.1	45		10	105

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

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: Q1215-03MS		**Client Sample ID: JPP-29.1-012825MS**						**DataFile: BF141573.D**			
Benzaldehyde	1900	0	2200	ug/Kg	116	*			10	86	
Phenol	1900	0	1700	ug/Kg	89				67	126	
bis(2-Chloroethyl)ether	1900	0	1800	ug/Kg	95				54	125	
2-Chlorophenol	1900	0	1700	ug/Kg	89				79	107	
2-Methylphenol	1900	0	1700	ug/Kg	89				66	122	
2,2-oxybis(1-Chloropropane)	1900	0	1700	ug/Kg	89				65	110	
Acetophenone	1900	0	2000	ug/Kg	105				75	111	
3+4-Methylphenols	1900	0	1700	ug/Kg	89				66	104	
N-Nitroso-di-n-propylamine	1900	0	1700	ug/Kg	89				59	119	
Hexachloroethane	1900	0	1700	ug/Kg	89				65	117	
Nitrobenzene	1900	0	1700	ug/Kg	89				70	119	
Isophorone	1900	0	1900	ug/Kg	100				76	122	
2-Nitrophenol	1900	0	1800	ug/Kg	95				54	145	
2,4-Dimethylphenol	1900	0	2200	ug/Kg	116				44	135	
bis(2-Chloroethoxy)methane	1900	0	1800	ug/Kg	95				68	112	
2,4-Dichlorophenol	1900	0	1700	ug/Kg	89				72	118	
Naphthalene	1900	0	1800	ug/Kg	95				72	110	
4-Chloroaniline	1900	0	380	ug/Kg	20				10	91	
Hexachlorobutadiene	1900	0	1900	ug/Kg	100				66	114	
Caprolactam	1900	0	1900	ug/Kg	100				51	134	
4-Chloro-3-methylphenol	1900	0	1600	ug/Kg	84				57	132	
2-Methylnaphthalene	1900	0	1700	ug/Kg	89				59	123	
Hexachlorocyclopentadiene	3700	0	2100	ug/Kg	57				10	175	
2,4,6-Trichlorophenol	1900	0	1800	ug/Kg	95				72	117	
2,4,5-Trichlorophenol	1900	0	1700	ug/Kg	89				72	117	
1,1-Biphenyl	1900	0	2000	ug/Kg	105				75	113	
2-Chloronaphthalene	1900	0	1800	ug/Kg	95				67	118	
2-Nitroaniline	1900	0	1800	ug/Kg	95				69	127	
Dimethylphthalate	1900	0	1800	ug/Kg	95				70	113	
Acenaphthylene	1900	0	1800	ug/Kg	95				79	118	
2,6-Dinitrotoluene	1900	0	1800	ug/Kg	95				70	125	
3-Nitroaniline	1900	0	820	ug/Kg	43				30	99	
Acenaphthene	1900	110	1800	ug/Kg	89				70	121	
2,4-Dinitrophenol	3700	0	1900	ug/Kg	51				10	155	
4-Nitrophenol	3700	0	3200	ug/Kg	86				45	133	
Dibenzofuran	1900	0	1700	ug/Kg	89				72	110	
2,4-Dinitrotoluene	1900	0	1700	ug/Kg	89				55	128	
Diethylphthalate	1900	0	1700	ug/Kg	89				70	112	
4-Chlorophenyl-phenylether	1900	0	1700	ug/Kg	89				71	108	
Fluorene	1900	0	1700	ug/Kg	89				68	116	
4-Nitroaniline	1900	0	1300	ug/Kg	68				55	120	
4,6-Dinitro-2-methylphenol	1900	0	1200	ug/Kg	63				10	160	
N-Nitrosodiphenylamine	1900	0	2000	ug/Kg	105				73	118	
4-Bromophenyl-phenylether	1900	0	1900	ug/Kg	100				65	121	
Hexachlorobenzene	1900	0	1900	ug/Kg	100				67	118	
Atrazine	1900	0	2500	ug/Kg	132	*			79	127	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

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	3700	0	3100	ug/Kg	84				47	128	
Phenanthrene	1900	1100	2700	ug/Kg	84				52	128	
Anthracene	1900	260	2000	ug/Kg	92				62	124	
Carbazole	1900	0	1800	ug/Kg	95				59	119	
Di-n-butylphthalate	1900	0	1900	ug/Kg	100				69	118	
Fluoranthene	1900	2100	3300	ug/Kg	63				44	125	
Pyrene	1900	1700	2900	ug/Kg	63				26	142	
Butylbenzylphthalate	1900	0	1900	ug/Kg	100				64	126	
3,3-Dichlorobenzidine	1900	0	1200	ug/Kg	63				33	116	
Benzo(a)anthracene	1900	1200	2800	ug/Kg	84				71	114	
Chrysene	1900	1000	2600	ug/Kg	84				57	121	
bis(2-Ethylhexyl)phthalate	1900	0	2200	ug/Kg	116				42	169	
Di-n-octyl phthalate	1900	0	2700	ug/Kg	142				23	175	
Benzo(b)fluoranthene	1900	1400	2900	ug/Kg	79				67	121	
Benzo(k)fluoranthene	1900	530	2200	ug/Kg	88				57	134	
Benzo(a)pyrene	1900	1300	2800	ug/Kg	79				70	142	
Indeno(1,2,3-cd)pyrene	1900	550	1900	ug/Kg	71				40	129	
Dibenz(a,h)anthracene	1900	180	1600	ug/Kg	75				43	123	
Benzo(g,h,i)perylene	1900	620	1800	ug/Kg	62				24	125	
1,2,4,5-Tetrachlorobenzene	1900	0	2000	ug/Kg	105				69	124	
1,4-Dioxane	1900	0	1800	ug/Kg	95				46	112	
2,3,4,6-Tetrachlorophenol	1900	0	1600	ug/Kg	84				69	112	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

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: Q1215-03MSD		**Client Sample ID: JPP-29.1-012825MSD**						**DataFile: BF141574.D**			
Benzaldehyde	1900	0	2200	ug/Kg	116	*	0		10	86	20
Phenol	1900	0	1600	ug/Kg	84		6		67	126	20
bis(2-Chloroethyl)ether	1900	0	1800	ug/Kg	95		0		54	125	20
2-Chlorophenol	1900	0	1700	ug/Kg	89		0		79	107	20
2-Methylphenol	1900	0	1600	ug/Kg	84		6		66	122	20
2,2-oxybis(1-Chloropropane)	1900	0	1700	ug/Kg	89		0		65	110	20
Acetophenone	1900	0	1800	ug/Kg	95		10		75	111	20
3+4-Methylphenols	1900	0	1600	ug/Kg	84		6		66	104	20
N-Nitroso-di-n-propylamine	1900	0	1700	ug/Kg	89		0		59	119	20
Hexachloroethane	1900	0	1700	ug/Kg	89		0		65	117	20
Nitrobenzene	1900	0	1700	ug/Kg	89		0		70	119	20
Isophorone	1900	0	1700	ug/Kg	89		12		76	122	20
2-Nitrophenol	1900	0	1700	ug/Kg	89		7		54	145	20
2,4-Dimethylphenol	1900	0	2100	ug/Kg	111		4		44	135	20
bis(2-Chloroethoxy)methane	1900	0	1700	ug/Kg	89		7		68	112	20
2,4-Dichlorophenol	1900	0	1600	ug/Kg	84		6		72	118	20
Naphthalene	1900	0	1700	ug/Kg	89		7		72	110	20
4-Chloroaniline	1900	0	350	ug/Kg	18		11		10	91	20
Hexachlorobutadiene	1900	0	1700	ug/Kg	89		12		66	114	20
Caprolactam	1900	0	1800	ug/Kg	95		5		51	134	20
4-Chloro-3-methylphenol	1900	0	1500	ug/Kg	79		6		57	132	20
2-Methylnaphthalene	1900	0	1600	ug/Kg	84		6		59	123	20
Hexachlorocyclopentadiene	3700	0	1800	ug/Kg	49		15		10	175	20
2,4,6-Trichlorophenol	1900	0	1700	ug/Kg	89		7		72	117	20
2,4,5-Trichlorophenol	1900	0	1600	ug/Kg	84		6		72	117	20
1,1-Biphenyl	1900	0	1900	ug/Kg	100		5		75	113	20
2-Chloronaphthalene	1900	0	1700	ug/Kg	89		7		67	118	20
2-Nitroaniline	1900	0	1700	ug/Kg	89		7		69	127	20
Dimethylphthalate	1900	0	1700	ug/Kg	89		7		70	113	20
Acenaphthylene	1900	0	1700	ug/Kg	89		7		79	118	20
2,6-Dinitrotoluene	1900	0	1600	ug/Kg	84		12		70	125	20
3-Nitroaniline	1900	0	800	ug/Kg	42		2		30	99	20
Acenaphthene	1900	110	1700	ug/Kg	84		6		70	121	20
2,4-Dinitrophenol	3700	0	1600	ug/Kg	43		17		10	155	20
4-Nitrophenol	3700	0	3000	ug/Kg	81		6		45	133	20
Dibenzofuran	1900	0	1600	ug/Kg	84		6		72	110	20
2,4-Dinitrotoluene	1900	0	1600	ug/Kg	84		6		55	128	20
Diethylphthalate	1900	0	1600	ug/Kg	84		6		70	112	20
4-Chlorophenyl-phenylether	1900	0	1600	ug/Kg	84		6		71	108	20
Fluorene	1900	0	1600	ug/Kg	84		6		68	116	20
4-Nitroaniline	1900	0	1200	ug/Kg	63		8		55	120	20
4,6-Dinitro-2-methylphenol	1900	0	1000	ug/Kg	53		17		10	160	20
N-Nitrosodiphenylamine	1900	0	1900	ug/Kg	100		5		73	118	20
4-Bromophenyl-phenylether	1900	0	1800	ug/Kg	95		5		65	121	20
Hexachlorobenzene	1900	0	1700	ug/Kg	89		12		67	118	20
Atrazine	1900	0	2300	ug/Kg	121		9		79	127	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

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	3700	0	3000	ug/Kg	81		4		47	128	20
Phenanthrene	1900	1100	2500	ug/Kg	74		13		52	128	20
Anthracene	1900	260	1900	ug/Kg	86		7		62	124	20
Carbazole	1900	0	1700	ug/Kg	89		7		59	119	20
Di-n-butylphthalate	1900	0	1800	ug/Kg	95		5		69	118	20
Fluoranthene	1900	2100	3100	ug/Kg	53		17		44	125	20
Pyrene	1900	1700	2700	ug/Kg	53		17		26	142	20
Butylbenzylphthalate	1900	0	1700	ug/Kg	89		12		64	126	20
3,3-Dichlorobenzidine	1900	0	1300	ug/Kg	68		8		33	116	20
Benzo(a)anthracene	1900	1200	2700	ug/Kg	79		6		71	114	20
Chrysene	1900	1000	2500	ug/Kg	79		6		57	121	20
bis(2-Ethylhexyl)phthalate	1900	0	2100	ug/Kg	111		4		42	169	20
Di-n-octyl phthalate	1900	0	2500	ug/Kg	132		7		23	175	20
Benzo(b)fluoranthene	1900	1400	2800	ug/Kg	74		7		67	121	20
Benzo(k)fluoranthene	1900	530	1900	ug/Kg	72		20		57	134	20
Benzo(a)pyrene	1900	1300	2700	ug/Kg	74		7		70	142	20
Indeno(1,2,3-cd)pyrene	1900	550	1800	ug/Kg	66		7		40	129	20
Dibenz(a,h)anthracene	1900	180	1500	ug/Kg	69		8		43	123	20
Benzo(g,h,i)perylene	1900	620	1700	ug/Kg	57		8		24	125	20
1,2,4,5-Tetrachlorobenzene	1900	0	1900	ug/Kg	100		5		69	124	20
1,4-Dioxane	1900	0	1900	ug/Kg	100		5		46	112	20
2,3,4,6-Tetrachlorophenol	1900	0	1500	ug/Kg	79		6		69	112	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141405.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166360BS	Benzaldehyde	1700	1600	ug/Kg	94				10	133	
	Phenol	1700	1300	ug/Kg	76				62	112	
	bis(2-Chloroethyl)ether	1700	1300	ug/Kg	76				60	101	
	2-Chlorophenol	1700	1400	ug/Kg	82				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	1600	ug/Kg	94				66	98	
	3+4-Methylphenols	1700	1400	ug/Kg	82				58	111	
	N-Nitroso-di-n-propylamine	1700	1400	ug/Kg	82				63	95	
	Hexachloroethane	1700	1400	ug/Kg	82				72	108	
	Nitrobenzene	1700	1300	ug/Kg	76				57	101	
	Isophorone	1700	1400	ug/Kg	82				59	99	
	2-Nitrophenol	1700	1400	ug/Kg	82				61	111	
	2,4-Dimethylphenol	1700	1700	ug/Kg	100				46	141	
	bis(2-Chloroethoxy)methane	1700	1300	ug/Kg	76				66	97	
	2,4-Dichlorophenol	1700	1400	ug/Kg	82				62	107	
	Naphthalene	1700	1400	ug/Kg	82				62	100	
	4-Chloroaniline	1700	610	ug/Kg	36				16	100	
	Hexachlorobutadiene	1700	1400	ug/Kg	82				53	98	
	Caprolactam	1700	1500	ug/Kg	88				67	110	
	4-Chloro-3-methylphenol	1700	1500	ug/Kg	88				58	112	
	2-Methylnaphthalene	1700	1300	ug/Kg	76				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	1400	ug/Kg	82				61	99	
	Acenaphthylene	1700	1500	ug/Kg	88				63	101	
	2,6-Dinitrotoluene	1700	1400	ug/Kg	82				61	104	
	3-Nitroaniline	1700	770	ug/Kg	45				28	100	
	Acenaphthene	1700	1600	ug/Kg	94				57	104	
	2,4-Dinitrophenol	3300	3700	ug/Kg	112				37	128	
	4-Nitrophenol	3300	3300	ug/Kg	100				48	119	
	Dibenzofuran	1700	1400	ug/Kg	82				63	99	
	2,4-Dinitrotoluene	1700	1500	ug/Kg	88				60	106	
	Diethylphthalate	1700	1400	ug/Kg	82				60	101	
	4-Chlorophenyl-phenylether	1700	1400	ug/Kg	82				58	98	
	Fluorene	1700	1500	ug/Kg	88				61	101	
	4-Nitroaniline	1700	1400	ug/Kg	82				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	1400	ug/Kg	82				66	102	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141405.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB166360BS	Hexachlorobenzene	1700	1400	ug/Kg	82				64	98	
	Atrazine	1700	1700	ug/Kg	100				47	152	
	Pentachlorophenol	3300	3200	ug/Kg	97				67	105	
	Phenanthrene	1700	1500	ug/Kg	88				59	103	
	Anthracene	1700	1600	ug/Kg	94				61	105	
	Carbazole	1700	1500	ug/Kg	88				61	99	
	Di-n-butylphthalate	1700	1500	ug/Kg	88				58	104	
	Fluoranthene	1700	1600	ug/Kg	94				57	107	
	Pyrene	1700	1200	ug/Kg	71				59	103	
	Butylbenzylphthalate	1700	1400	ug/Kg	82				55	103	
	3,3-Dichlorobenzidine	1700	690	ug/Kg	41		*		42	91	
	Benzo(a)anthracene	1700	1300	ug/Kg	76				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	1500	ug/Kg	88				52	137	
	Benzo(b)fluoranthene	1700	1500	ug/Kg	88				62	109	
	Benzo(k)fluoranthene	1700	1500	ug/Kg	88				62	109	
	Benzo(a)pyrene	1700	1600	ug/Kg	94				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1400	ug/Kg	82				63	101	
	Dibenz(a,h)anthracene	1700	1400	ug/Kg	82				61	112	
	Benzo(g,h,i)perylene	1700	1300	ug/Kg	76				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.

PB166360BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: BF141404.D Lab Sample ID: PB166360BL

Instrument ID: BNA_F Date Extracted: 01/30/2025

Matrix: (soil/water) SOIL Date Analyzed: 02/04/2025

Level: (low/med) LOW Time Analyzed: 13:21

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166360BS	PB166360BS	BF141405.D	02/04/2025
JPP-21.1-012825	Q1216-07	BF141516.D	02/07/2025
JPP-18.1-012825	Q1216-03	BF141517.D	02/07/2025
JPP-26.1-012825	Q1216-15	BF141520.D	02/07/2025
JPP-29.1-012825MS	Q1215-03MS	BF141573.D	02/11/2025
JPP-29.1-012825MSD	Q1215-03MSD	BF141574.D	02/11/2025
JPP-21.2-012825	Q1216-11	BF141392.D	02/04/2025
JPP-26.2-012825	Q1216-19	BF141391.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.: Q1216 SDG NO.: Q1216

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.: Q1216 SDG NO.: Q1216

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-26.2-012825	Q1216-19	BF141391.D	02/04/2025	01:16
JPP-21.2-012825	Q1216-11	BF141392.D	02/04/2025	01:42

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

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
PB166360BL	PB166360BL	BF141404.D	02/04/2025	13:21
PB166360BS	PB166360BS	BF141405.D	02/04/2025	13:47

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

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.: Q1216 SDG NO.: Q1216

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-21.1-012825	Q1216-07	BF141516.D	02/07/2025	19:02
JPP-18.1-012825	Q1216-03	BF141517.D	02/07/2025	19:28
JPP-26.1-012825	Q1216-15	BF141520.D	02/07/2025	20:47

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825DL	Q1216-15DL	BF141548.D	02/10/2025	21:12

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: BF141550.D DFTPP Injection Date: 02/11/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:02

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	0.7 (1.9) 1
69	Mass 69 relative abundance	36.4
70	Less than 2.0% of mass 69	0.2 (0.7) 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	6.7
275	10.0 - 60.0% of mass 198	28.2
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	13.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.6 (19.1) 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	BF141551.D	02/11/2025	10:28
JPP-29.1-012825MS	Q1215-03MS	BF141573.D	02/11/2025	20:11
JPP-29.1-012825MSD	Q1215-03MSD	BF141574.D	02/11/2025	20:38

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.2-012825	78116	6.79	291369	8.08	134383	9.83
02	JPP-26.2-012825	83992	6.79	310163	8.08	143586	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.2-012825	196403	11.32	149766	13.96	108070	*	15.40
02	JPP-26.2-012825	203961	11.32	171871	13.96	127914		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

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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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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	PB166360BL	87808	6.79	356027	8.07	197186	9.83
02	PB166360BS	88432	6.79	354444	8.08	192238	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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	PB166360BL	341529	11.32	264448	13.96	208461	15.41
02	PB166360BS	331523	11.32	256577	13.96	210910	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	82228	6.79	318645	8.08	157303	9.83
02	JPP-21.1-012825	86290	6.79	329638	8.07	156807	9.83
03	JPP-26.1-012825	71035	6.79	270006	8.08	131111	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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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	230152	11.32	150696		13.96	115335	15.43
02	JPP-21.1-012825	228703	11.32	157412		13.96	120991	15.43
03	JPP-26.1-012825	197575	11.32	117908	*	13.97	102212	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

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

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825DL	74035	6.79	289660	8.07	144714	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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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-26.1-012825DL	197252	11.31	174653	13.95	154420	15.41

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/11/2025

Lab File ID: BF141551.D Time Analyzed: 10:28

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	100982	6.793	399334	8.08	220290	9.83
	UPPER LIMIT	201964	7.293	798668	8.575	440580	10.328
	LOWER LIMIT	50491	6.293	199667	7.575	110145	9.328
	EPA SAMPLE NO.						
01	JPP-29.1-012825MS	77607	6.79	287166	8.07	145781	9.82
02	JPP-29.1-012825MSD	77684	6.79	297197	8.07	147170	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/11/2025

Lab File ID: BF141551.D Time Analyzed: 10:28

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	380364	11.31	221485	13.957	189149	15.41
	UPPER LIMIT	760728	11.81	442970	14.457	378298	15.91
	LOWER LIMIT	190182	10.81	110743	13.457	94574.5	14.91
	EPA SAMPLE NO.						
01	JPP-29.1-012825MS	213944	11.31	166810	13.96	163116	15.40
02	JPP-29.1-012825MSD	213794	11.31	172116	13.96	164980	15.41

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:	PB166360BL	SDG No.:	Q1216
Lab Sample ID:	PB166360BL	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
BF141404.D	1	01/30/25 09:15	02/04/25 13:21	PB166360

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:	PB166360BL	SDG No.:	Q1216
Lab Sample ID:	PB166360BL	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
BF141404.D	1	01/30/25 09:15	02/04/25 13:21	PB166360

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:	PB166360BL	SDG No.:	Q1216
Lab Sample ID:	PB166360BL	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
BF141404.D	1	01/30/25 09:15	02/04/25 13:21	PB166360

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	147		18 - 112	98%	SPK: 150
13127-88-3	Phenol-d6	142		15 - 107	95%	SPK: 150
4165-60-0	Nitrobenzene-d5	101		18 - 107	101%	SPK: 100
321-60-8	2-Fluorobiphenyl	100.0		20 - 109	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	158		10 - 116	105%	SPK: 150
1718-51-0	Terphenyl-d14	93.3		10 - 105	93%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	87800	6.786			
1146-65-2	Naphthalene-d8	356000	8.069			
15067-26-2	Acenaphthene-d10	197000	9.827			
1517-22-2	Phenanthrene-d10	342000	11.316			
1719-03-5	Chrysene-d12	264000	13.957			
1520-96-3	Perylene-d12	208000	15.409			
TENTATIVE IDENTIFIED COMPOUNDS						
004744-10-9	Propane, 1,1-dimethoxy-	170	J		2.16	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	83.9	A		5.01	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:	PB166360BL			SDG No.:	Q1216
Lab Sample ID:	PB166360BL			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
BF141404.D	1	01/30/25 09:15	02/04/25 13:21	PB166360

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:	PB166360BS	SDG No.:	Q1216
Lab Sample ID:	PB166360BS	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
BF141405.D	1	01/30/25 09:15	02/04/25 13:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1600		180	330	ug/Kg
108-95-2	Phenol	1300		82.9	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1300		83.7	170	ug/Kg
95-57-8	2-Chlorophenol	1400		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	1600		86.9	170	ug/Kg
65794-96-9	3+4-Methylphenols	1400		79.8	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1400		40.3	80.0	ug/Kg
67-72-1	Hexachloroethane	1400		83.0	170	ug/Kg
98-95-3	Nitrobenzene	1300		90.8	170	ug/Kg
78-59-1	Isophorone	1400		84.6	170	ug/Kg
88-75-5	2-Nitrophenol	1400		94.5	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1700		93.2	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1300		85.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1400		75.5	170	ug/Kg
91-20-3	Naphthalene	1400		82.6	170	ug/Kg
106-47-8	4-Chloroaniline	610		82.6	170	ug/Kg
87-68-3	Hexachlorobutadiene	1400		83.3	170	ug/Kg
105-60-2	Caprolactam	1500		86.8	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		77.5	170	ug/Kg
91-57-6	2-Methylnaphthalene	1300		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	1400		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:	PB166360BS	SDG No.:	Q1216
Lab Sample ID:	PB166360BS	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
BF141405.D	1	01/30/25 09:15	02/04/25 13:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1500		86.5	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1400		83.2	170	ug/Kg
99-09-2	3-Nitroaniline	770		89.2	170	ug/Kg
83-32-9	Acenaphthene	1600		81.1	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3700	E	240	330	ug/Kg
100-02-7	4-Nitrophenol	3300	E	120	330	ug/Kg
132-64-9	Dibenzofuran	1400		84.4	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		86.2	170	ug/Kg
84-66-2	Diethylphthalate	1400		80.1	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1400		85.6	170	ug/Kg
86-73-7	Fluorene	1500		85.5	170	ug/Kg
100-01-6	4-Nitroaniline	1400		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	1400		78.9	170	ug/Kg
118-74-1	Hexachlorobenzene	1400		85.0	170	ug/Kg
1912-24-9	Atrazine	1700		91.4	170	ug/Kg
87-86-5	Pentachlorophenol	3200	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	1500		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	1200		83.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1400		96.8	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	690		98.6	330	ug/Kg
56-55-3	Benzo(a)anthracene	1300		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	1500		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1500		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:	PB166360BS	SDG No.:	Q1216
Lab Sample ID:	PB166360BS	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
BF141405.D	1	01/30/25 09:15	02/04/25 13:47	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1500		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	1400		78.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1400		81.2	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1300		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	134		18 - 112	89%	SPK: 150
13127-88-3	Phenol-d6	128		15 - 107	85%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.7		18 - 107	93%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.8		20 - 109	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	154		10 - 116	103%	SPK: 150
1718-51-0	Terphenyl-d14	85.1		10 - 105	85%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	88400	6.787			
1146-65-2	Naphthalene-d8	354000	8.075			
15067-26-2	Acenaphthene-d10	192000	9.828			
1517-22-2	Phenanthrene-d10	332000	11.316			
1719-03-5	Chrysene-d12	257000	13.963			
1520-96-3	Perylene-d12	211000	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

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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.:	Q1216
Lab Sample ID:	Q1215-03MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.8
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
BF141573.D	1	01/30/25 09:15	02/11/25 20:11	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	2200		200	370	ug/Kg
108-95-2	Phenol	1700		93.2	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1800		94.1	190	ug/Kg
95-57-8	2-Chlorophenol	1700		93.8	190	ug/Kg
95-48-7	2-Methylphenol	1700		90.6	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1700		100	190	ug/Kg
98-86-2	Acetophenone	2000		97.7	190	ug/Kg
65794-96-9	3+4-Methylphenols	1700		89.7	370	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1700		45.3	89.9	ug/Kg
67-72-1	Hexachloroethane	1700		93.3	190	ug/Kg
98-95-3	Nitrobenzene	1700		100	190	ug/Kg
78-59-1	Isophorone	1900		95.1	190	ug/Kg
88-75-5	2-Nitrophenol	1800		110	190	ug/Kg
105-67-9	2,4-Dimethylphenol	2200		100	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1800		96.4	190	ug/Kg
120-83-2	2,4-Dichlorophenol	1700		84.9	190	ug/Kg
91-20-3	Naphthalene	1800		92.8	190	ug/Kg
106-47-8	4-Chloroaniline	380		92.8	190	ug/Kg
87-68-3	Hexachlorobutadiene	1900		93.6	190	ug/Kg
105-60-2	Caprolactam	1900		97.6	370	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1600		87.1	190	ug/Kg
91-57-6	2-Methylnaphthalene	1700		92.7	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2100		180	370	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1800		80.2	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1700		83.2	190	ug/Kg
92-52-4	1,1-Biphenyl	2000		98.2	190	ug/Kg
91-58-7	2-Chloronaphthalene	1800		93.6	190	ug/Kg
88-74-4	2-Nitroaniline	1800		110	190	ug/Kg
131-11-3	Dimethylphthalate	1800		91.8	190	ug/Kg

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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.:	Q1216
Lab Sample ID:	Q1215-03MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.8
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
BF141573.D	1	01/30/25 09:15	02/11/25 20:11	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1800		97.2	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	1800		93.5	190	ug/Kg
99-09-2	3-Nitroaniline	820		100	190	ug/Kg
83-32-9	Acenaphthene	1800		91.1	190	ug/Kg
51-28-5	2,4-Dinitrophenol	1900		270	370	ug/Kg
100-02-7	4-Nitrophenol	3200	E	130	370	ug/Kg
132-64-9	Dibenzofuran	1700		94.9	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	1700		96.9	190	ug/Kg
84-66-2	Diethylphthalate	1700		90.0	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1700		96.2	190	ug/Kg
86-73-7	Fluorene	1700		96.1	190	ug/Kg
100-01-6	4-Nitroaniline	1300		120	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200		130	370	ug/Kg
86-30-6	n-Nitrosodiphenylamine	2000		91.7	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1900		88.7	190	ug/Kg
118-74-1	Hexachlorobenzene	1900		95.5	190	ug/Kg
1912-24-9	Atrazine	2500		100	190	ug/Kg
87-86-5	Pentachlorophenol	3100	E	86.9	370	ug/Kg
85-01-8	Phenanthrene	2700		94.4	190	ug/Kg
120-12-7	Anthracene	2000		94.9	190	ug/Kg
86-74-8	Carbazole	1800		90.2	190	ug/Kg
84-74-2	Di-n-butylphthalate	1900		94.7	190	ug/Kg
206-44-0	Fluoranthene	3300	E	91.8	190	ug/Kg
129-00-0	Pyrene	2900		93.3	190	ug/Kg
85-68-7	Butylbenzylphthalate	1900		110	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1200		110	370	ug/Kg
56-55-3	Benzo(a)anthracene	2800		90.7	190	ug/Kg
218-01-9	Chrysene	2600		89.3	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	2200		100	190	ug/Kg
117-84-0	Di-n-octyl phthalate	2700		120	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	2900		91.1	190	ug/Kg

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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.:	Q1216
Lab Sample ID:	Q1215-03MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.8
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
BF141573.D	1	01/30/25 09:15	02/11/25 20:11	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	2200		92.8	190	ug/Kg
50-32-8	Benzo(a)pyrene	2800		100	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1900		87.8	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1600		91.3	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1800		90.0	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	2000		97.6	190	ug/Kg
123-91-1	1,4-Dioxane	1800		120	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1600		84.0	190	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	96.4		18 - 112	64%	SPK: 150
13127-88-3	Phenol-d6	92.7		15 - 107	62%	SPK: 150
4165-60-0	Nitrobenzene-d5	72.2		18 - 107	72%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.2		20 - 109	73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	90.2		10 - 116	60%	SPK: 150
1718-51-0	Terphenyl-d14	59.0		10 - 105	59%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	77600	6.787			
1146-65-2	Naphthalene-d8	287000	8.069			
15067-26-2	Acenaphthene-d10	146000	9.822			
1517-22-2	Phenanthrene-d10	214000	11.31			
1719-03-5	Chrysene-d12	167000	13.957			
1520-96-3	Perylene-d12	163000	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1216
Lab Sample ID:	Q1215-03MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.8
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
BF141574.D	1	01/30/25 09:15	02/11/25 20:38	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	2200		200	370	ug/Kg
108-95-2	Phenol	1600		93.2	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1800		94.1	190	ug/Kg
95-57-8	2-Chlorophenol	1700		93.9	190	ug/Kg
95-48-7	2-Methylphenol	1600		90.6	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1700		100	190	ug/Kg
98-86-2	Acetophenone	1800		97.7	190	ug/Kg
65794-96-9	3+4-Methylphenols	1600		89.7	370	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1700		45.3	89.9	ug/Kg
67-72-1	Hexachloroethane	1700		93.3	190	ug/Kg
98-95-3	Nitrobenzene	1700		100	190	ug/Kg
78-59-1	Isophorone	1700		95.1	190	ug/Kg
88-75-5	2-Nitrophenol	1700		110	190	ug/Kg
105-67-9	2,4-Dimethylphenol	2100		100	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1700		96.5	190	ug/Kg
120-83-2	2,4-Dichlorophenol	1600		84.9	190	ug/Kg
91-20-3	Naphthalene	1700		92.9	190	ug/Kg
106-47-8	4-Chloroaniline	350		92.9	190	ug/Kg
87-68-3	Hexachlorobutadiene	1700		93.7	190	ug/Kg
105-60-2	Caprolactam	1800		97.6	370	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		87.1	190	ug/Kg
91-57-6	2-Methylnaphthalene	1600		92.8	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1800		180	370	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1700		80.3	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1600		83.2	190	ug/Kg
92-52-4	1,1-Biphenyl	1900		98.3	190	ug/Kg
91-58-7	2-Chloronaphthalene	1700		93.7	190	ug/Kg
88-74-4	2-Nitroaniline	1700		110	190	ug/Kg
131-11-3	Dimethylphthalate	1700		91.9	190	ug/Kg

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1216
Lab Sample ID:	Q1215-03MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.8
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
BF141574.D	1	01/30/25 09:15	02/11/25 20:38	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1700		97.2	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	1600		93.5	190	ug/Kg
99-09-2	3-Nitroaniline	800		100	190	ug/Kg
83-32-9	Acenaphthene	1700		91.2	190	ug/Kg
51-28-5	2,4-Dinitrophenol	1600		270	370	ug/Kg
100-02-7	4-Nitrophenol	3000		130	370	ug/Kg
132-64-9	Dibenzofuran	1600		94.9	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	1600		96.9	190	ug/Kg
84-66-2	Diethylphthalate	1600		90.1	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1600		96.2	190	ug/Kg
86-73-7	Fluorene	1600		96.1	190	ug/Kg
100-01-6	4-Nitroaniline	1200		120	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1000		130	370	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1900		91.7	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1800		88.7	190	ug/Kg
118-74-1	Hexachlorobenzene	1700		95.6	190	ug/Kg
1912-24-9	Atrazine	2300		100	190	ug/Kg
87-86-5	Pentachlorophenol	3000		86.9	370	ug/Kg
85-01-8	Phenanthrene	2500		94.4	190	ug/Kg
120-12-7	Anthracene	1900		94.9	190	ug/Kg
86-74-8	Carbazole	1700		90.3	190	ug/Kg
84-74-2	Di-n-butylphthalate	1800		94.8	190	ug/Kg
206-44-0	Fluoranthene	3100	E	91.9	190	ug/Kg
129-00-0	Pyrene	2700		93.3	190	ug/Kg
85-68-7	Butylbenzylphthalate	1700		110	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1300		110	370	ug/Kg
56-55-3	Benzo(a)anthracene	2700		90.7	190	ug/Kg
218-01-9	Chrysene	2500		89.4	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	2100		100	190	ug/Kg
117-84-0	Di-n-octyl phthalate	2500		120	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	2800		91.2	190	ug/Kg

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1216
Lab Sample ID:	Q1215-03MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.8
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
BF141574.D	1	01/30/25 09:15	02/11/25 20:38	PB166360

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1900		92.9	190	ug/Kg
50-32-8	Benzo(a)pyrene	2700		100	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1800		87.8	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1500		91.3	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1700		90.1	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1900		97.6	190	ug/Kg
123-91-1	1,4-Dioxane	1900		120	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1500		84.0	190	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	94.8		18 - 112	63%	SPK: 150
13127-88-3	Phenol-d6	92.1		15 - 107	61%	SPK: 150
4165-60-0	Nitrobenzene-d5	68.4		18 - 107	68%	SPK: 100
321-60-8	2-Fluorobiphenyl	70.6		20 - 109	71%	SPK: 100
118-79-6	2,4,6-Tribromophenol	82.2		10 - 116	55%	SPK: 150
1718-51-0	Terphenyl-d14	56.0		10 - 105	56%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	77700	6.787			
1146-65-2	Naphthalene-d8	297000	8.069			
15067-26-2	Acenaphthene-d10	147000	9.822			
1517-22-2	Phenanthrene-d10	214000	11.31			
1719-03-5	Chrysene-d12	172000	13.957			
1520-96-3	Perylene-d12	165000	15.41			

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

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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	

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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
2-Fluorophenol	1.303	1.302		-0.1	
Benzaldehyde	0.960	0.893		-7.0	
Phenol-d6	1.657	1.560		-5.9	
Phenol	1.757	1.650		-6.1	20.0
bis(2-Chloroethyl)ether	1.347	1.262		-6.3	
2-Chlorophenol	1.396	1.387		-0.6	
2-Methylphenol	1.135	1.074		-5.4	
2,2-oxybis(1-Chloropropane)	2.342	2.108		-10.0	
Acetophenone	0.475	0.491		3.4	
3+4-Methylphenols	1.393	1.375		-1.3	
n-Nitroso-di-n-propylamine	0.985	0.929	0.050	-5.7	
Nitrobenzene-d5	0.379	0.391		3.2	
Hexachloroethane	0.571	0.583		2.1	
Nitrobenzene	0.393	0.398		1.3	
Isophorone	0.656	0.643		-2.0	
2-Nitrophenol	0.185	0.185		0.0	20.0
2,4-Dimethylphenol	0.236	0.230		-2.5	
bis(2-Chloroethoxy)methane	0.418	0.403		-3.6	
2,4-Dichlorophenol	0.289	0.296		2.4	20.0
Naphthalene	1.057	1.061		0.4	
4-Chloroaniline	0.358	0.347		-3.1	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
Caprolactam	0.094	0.093		-1.1	
4-Chloro-3-methylphenol	0.310	0.325		4.8	20.0
2-Methylnaphthalene	0.672	0.684		1.8	
Hexachlorocyclopentadiene	0.168	0.185	0.050	10.1	
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	
1,1-Biphenyl	1.560	1.563		0.2	
2-Chloronaphthalene	1.216	1.209		-0.6	
2-Nitroaniline	0.382	0.390		2.1	
Dimethylphthalate	1.351	1.371		1.5	
Acenaphthylene	1.702	1.717		0.9	
2,6-Dinitrotoluene	0.314	0.321		2.2	
3-Nitroaniline	0.307	0.321		4.6	
Acenaphthene	1.216	1.256		3.3	20.0
2,4-Dinitrophenol	0.146	0.165	0.050	13.0	
4-Nitrophenol	0.225	0.257	0.050	14.2	

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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
Dibenzofuran	1.627	1.669		2.6	
2,4-Dinitrotoluene	0.406	0.441		8.6	
Diethylphthalate	1.310	1.374		4.9	
4-Chlorophenyl-phenylether	0.617	0.648		5.0	
Fluorene	1.262	1.306		3.5	
4-Nitroaniline	0.302	0.344		13.9	
4,6-Dinitro-2-methylphenol	0.118	0.137		16.1	
n-Nitrosodiphenylamine	0.647	0.634		-2.0	20.0
2,4,6-Tribromophenol	0.183	0.202		10.4	
4-Bromophenyl-phenylether	0.224	0.225		0.4	
Hexachlorobenzene	0.238	0.243		2.1	
Atrazine	0.216	0.214		-0.9	
Pentachlorophenol	0.139	0.161		15.8	20.0
Phenanthrene	1.075	1.109		3.2	
Anthracene	1.053	1.092		3.7	
Carbazole	0.934	1.029		10.1	
Di-n-butylphthalate	1.132	1.214		7.2	
Fluoranthene	1.062	1.240		16.8	20.0
Pyrene	1.920	1.729		-9.9	
Terphenyl-d14	1.297	1.200		-7.5	
Butylbenzylphthalate	0.671	0.691		3.0	
3,3-Dichlorobenzidine	0.439	0.412		-6.2	
Benzo(a)anthracene	1.380	1.305		-5.4	
Chrysene	1.265	1.270		0.4	
Bis(2-ethylhexyl)phthalate	0.851	0.910		6.9	
Di-n-octyl phthalate	1.321	1.415		7.1	20.0
Benzo(b)fluoranthene	1.258	1.341		6.6	
Benzo(k)fluoranthene	1.114	1.140		2.3	
Benzo(a)pyrene	1.063	1.072		0.8	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.338		3.6	
Dibenzo(a,h)anthracene	1.039	1.068		2.8	
Benzo(g,h,i)perylene	1.080	1.113		3.1	
1,2,4,5-Tetrachlorobenzene	0.569	0.587		3.2	
1,4-Dioxane	0.573	0.555		-3.1	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.341		6.9	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

Instrument ID: BNA_F Calibration Date/Time: 02/11/2025 10:28

Lab File ID: BF141551.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	1.265		-0.9	
Benzaldehyde	0.857	0.753		-12.1	
Phenol-d6	1.612	1.593		-1.2	
Phenol	1.678	1.648		-1.8	20.0
bis(2-Chloroethyl)ether	1.261	1.246		-1.2	
2-Chlorophenol	1.378	1.375		-0.2	
2-Methylphenol	1.079	1.043		-3.3	
2,2-oxybis(1-Chloropropane)	2.158	2.126		-1.5	
Acetophenone	0.498	0.484		-2.8	
3+4-Methylphenols	1.371	1.332		-2.8	
n-Nitroso-di-n-propylamine	0.964	0.956	0.050	-0.8	
Nitrobenzene-d5	0.383	0.379		-1.0	
Hexachloroethane	0.550	0.547		-0.5	
Nitrobenzene	0.374	0.368		-1.6	
Isophorone	0.611	0.609		-0.3	
2-Nitrophenol	0.186	0.189		1.6	20.0
2,4-Dimethylphenol	0.217	0.221		1.8	
bis(2-Chloroethoxy)methane	0.392	0.398		1.5	
2,4-Dichlorophenol	0.294	0.295		0.3	20.0
Naphthalene	1.041	1.028		-1.2	
4-Chloroaniline	0.363	0.326		-10.2	
Hexachlorobutadiene	0.192	0.193		0.5	20.0
Caprolactam	0.089	0.091		2.2	
4-Chloro-3-methylphenol	0.325	0.324		-0.3	20.0
2-Methylnaphthalene	0.677	0.671		-0.9	
Hexachlorocyclopentadiene	0.192	0.181	0.050	-5.7	
2,4,6-Trichlorophenol	0.374	0.373		-0.3	20.0
2-Fluorobiphenyl	1.298	1.271		-2.1	
2,4,5-Trichlorophenol	0.405	0.401		-1.0	
1,1-Biphenyl	1.551	1.544		-0.5	
2-Chloronaphthalene	1.147	1.123		-2.1	
2-Nitroaniline	0.385	0.372		-3.4	
Dimethylphthalate	1.358	1.360		0.1	
Acenaphthylene	1.705	1.686		-1.1	
2,6-Dinitrotoluene	0.297	0.295		-0.7	
3-Nitroaniline	0.319	0.310		-2.8	
Acenaphthene	1.147	1.121		-2.3	20.0
2,4-Dinitrophenol	0.176	0.181	0.050	2.8	
4-Nitrophenol	0.237	0.233	0.050	-1.7	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

Instrument ID: BNA_F Calibration Date/Time: 02/11/2025 10:28

Lab File ID: BF141551.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	1.653		-1.8	
2,4-Dinitrotoluene	0.395	0.398		0.8	
Diethylphthalate	1.336	1.353		1.3	
4-Chlorophenyl-phenylether	0.626	0.620		-1.0	
Fluorene	1.301	1.291		-0.8	
4-Nitroaniline	0.324	0.324		0.0	
4,6-Dinitro-2-methylphenol	0.139	0.139		0.0	
n-Nitrosodiphenylamine	0.640	0.634		-0.9	20.0
2,4,6-Tribromophenol	0.201	0.201		0.0	
4-Bromophenyl-phenylether	0.224	0.226		0.9	
Hexachlorobenzene	0.230	0.230		0.0	
Atrazine	0.192	0.174		-9.4	
Pentachlorophenol	0.147	0.147		0.0	20.0
Phenanthrene	1.101	1.067		-3.1	
Anthracene	1.107	1.091		-1.4	
Carbazole	0.996	0.961		-3.5	
Di-n-butylphthalate	1.150	1.169		1.7	
Fluoranthene	1.167	1.112		-4.7	20.0
Pyrene	1.703	1.914		12.4	
Terphenyl-d14	1.185	1.330		12.2	
Butylbenzylphthalate	0.590	0.654		10.8	
3,3-Dichlorobenzidine	0.381	0.368		-3.4	
Benzo(a)anthracene	1.329	1.313		-1.2	
Chrysene	1.228	1.216		-1.0	
Bis(2-ethylhexyl)phthalate	0.665	0.741		11.4	
Di-n-octyl phthalate	0.949	1.040		9.6	20.0
Benzo(b)fluoranthene	1.343	1.314		-2.2	
Benzo(k)fluoranthene	1.147	1.062		-7.4	
Benzo(a)pyrene	1.087	1.065		-2.0	20.0
Indeno(1,2,3-cd)pyrene	1.236	1.357		9.8	
Dibenzo(a,h)anthracene	1.001	1.106		10.5	
Benzo(g,h,i)perylene	1.048	1.156		10.3	
1,2,4,5-Tetrachlorobenzene	0.579	0.575		-0.7	
1,4-Dioxane	0.513	0.499		-2.7	20.0
2,3,4,6-Tetrachlorophenol	0.349	0.348		-0.3	

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-04	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/06/25	
Q1216-08	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/04/25	
Q1216-12	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1216-16	**JPP-26.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1216-20	**JPP-26.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP BNA	8270E		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1216

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.:	Q1216
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.:	Q1216
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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-04	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
BF141494.D	1	01/31/25 10:29	02/06/25 21:30	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	134		10 - 139	89%	SPK: 150
13127-88-3	Phenol-d6	128		10 - 134	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	99.5		49 - 133	99%	SPK: 100
321-60-8	2-Fluorobiphenyl	101		52 - 132	101%	SPK: 100
118-79-6	2,4,6-Tribromophenol	157		44 - 137	104%	SPK: 150
1718-51-0	Terphenyl-d14	114		48 - 125	114%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	90500	6.787			
1146-65-2	Naphthalene-d8	368000	8.069			
15067-26-2	Acenaphthene-d10	202000	9.822			
1517-22-2	Phenanthrene-d10	359000	11.31			
1719-03-5	Chrysene-d12	235000	13.951			
1520-96-3	Perylene-d12	142000	15.398			

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-04	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
BF141494.D	1	01/31/25 10:29	02/06/25 21:30	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-08	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
BF141421.D	1	01/31/25 10:29	02/04/25 20:52	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	138		10 - 139	92%	SPK: 150
13127-88-3	Phenol-d6	124		10 - 134	82%	SPK: 150
4165-60-0	Nitrobenzene-d5	108		49 - 133	108%	SPK: 100
321-60-8	2-Fluorobiphenyl	104		52 - 132	104%	SPK: 100
118-79-6	2,4,6-Tribromophenol	177		44 - 137	118%	SPK: 150
1718-51-0	Terphenyl-d14	86.0		48 - 125	86%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	74600	6.787			
1146-65-2	Naphthalene-d8	294000	8.069			
15067-26-2	Acenaphthene-d10	166000	9.822			
1517-22-2	Phenanthrene-d10	298000	11.31			
1719-03-5	Chrysene-d12	265000	13.957			
1520-96-3	Perylene-d12	216000	15.416			

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-08	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
BF141421.D	1	01/31/25 10:29	02/04/25 20:52	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-12	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
BF141375.D	1	01/31/25 10:29	02/03/25 18:12	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	142		10 - 139	95%	SPK: 150
13127-88-3	Phenol-d6	136		10 - 134	90%	SPK: 150
4165-60-0	Nitrobenzene-d5	98.5		49 - 133	99%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.8		52 - 132	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	162		44 - 137	108%	SPK: 150
1718-51-0	Terphenyl-d14	88.1		48 - 125	88%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	99400	6.793			
1146-65-2	Naphthalene-d8	410000	8.075			
15067-26-2	Acenaphthene-d10	226000	9.828			
1517-22-2	Phenanthrene-d10	389000	11.316			
1719-03-5	Chrysene-d12	283000	13.957			
1520-96-3	Perylene-d12	207000	15.41			

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-12	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
BF141375.D	1	01/31/25 10:29	02/03/25 18:12	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-16	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
BF141376.D	1	01/31/25 10:29	02/03/25 18:38	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	147		10 - 139	98%	SPK: 150
13127-88-3	Phenol-d6	135		10 - 134	90%	SPK: 150
4165-60-0	Nitrobenzene-d5	104		49 - 133	104%	SPK: 100
321-60-8	2-Fluorobiphenyl	103		52 - 132	103%	SPK: 100
118-79-6	2,4,6-Tribromophenol	170		44 - 137	113%	SPK: 150
1718-51-0	Terphenyl-d14	95.0		48 - 125	95%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	83900	6.792			
1146-65-2	Naphthalene-d8	324000	8.075			
15067-26-2	Acenaphthene-d10	177000	9.828			
1517-22-2	Phenanthrene-d10	304000	11.316			
1719-03-5	Chrysene-d12	223000	13.957			
1520-96-3	Perylene-d12	155000	15.415			

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-16	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
BF141376.D	1	01/31/25 10:29	02/03/25 18:38	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-20	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
BF141377.D	1	01/31/25 10:29	02/03/25 19:04	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	127		10 - 134	85%	SPK: 150
4165-60-0	Nitrobenzene-d5	102		49 - 133	102%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.3		52 - 132	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	136		44 - 137	91%	SPK: 150
1718-51-0	Terphenyl-d14	96.2		48 - 125	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	107000	6.793			
1146-65-2	Naphthalene-d8	440000	8.075			
15067-26-2	Acenaphthene-d10	236000	9.828			
1517-22-2	Phenanthrene-d10	317000	11.316			
1719-03-5	Chrysene-d12	221000	13.957			
1520-96-3	Perylene-d12	156000	15.41			

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-20	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
BF141377.D	1	01/31/25 10:29	02/03/25 19:04	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.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	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
Q1216-04	JPP-18.1-012825	2-Fluorophenol	150	134	89		10	139
		Phenol-d6	150	128	86		10	134
		Nitrobenzene-d5	100	99.5	99		49	133
		2-Fluorobiphenyl	100	101	101		52	132
		2,4,6-Tribromophenol	150	157	104		44	137
		Terphenyl-d14	100	114	114		48	125
Q1216-08	JPP-21.1-012825	2-Fluorophenol	150	138	92		10	139
		Phenol-d6	150	124	82		10	134
		Nitrobenzene-d5	100	108	108		49	133
		2-Fluorobiphenyl	100	104	104		52	132
		2,4,6-Tribromophenol	150	177	118		44	137
		Terphenyl-d14	100	86.0	86		48	125
Q1216-12	JPP-21.2-012825	2-Fluorophenol	150	142	95		10	139
		Phenol-d6	150	136	90		10	134
		Nitrobenzene-d5	100	98.5	99		49	133
		2-Fluorobiphenyl	100	94.8	95		52	132
		2,4,6-Tribromophenol	150	162	108		44	137
		Terphenyl-d14	100	88.1	88		48	125
Q1216-16	JPP-26.1-012825	2-Fluorophenol	150	147	98		10	139
		Phenol-d6	150	135	90		10	134
		Nitrobenzene-d5	100	104	104		49	133
		2-Fluorobiphenyl	100	103	103		52	132
		2,4,6-Tribromophenol	150	170	113		44	137
		Terphenyl-d14	100	95.0	95		48	125
Q1216-20	JPP-26.2-012825	2-Fluorophenol	150	136	91		10	139
		Phenol-d6	150	127	85		10	134
		Nitrobenzene-d5	100	102	102		49	133
		2-Fluorobiphenyl	100	95.3	95		52	132
		2,4,6-Tribromophenol	150	136	91		44	137
		Terphenyl-d14	100	96.2	96		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

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Surrogate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q1218-02MS	BELL-25-002MS	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

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

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.: Q1216

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.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.2-012825	Q1216-12	BF141375.D	02/03/2025
JPP-26.1-012825	Q1216-16	BF141376.D	02/03/2025
JPP-26.2-012825	Q1216-20	BF141377.D	02/03/2025
PB166356TB	PB166356TB	BF141406.D	02/04/2025
PB166426BS	PB166426BS	BF141407.D	02/04/2025
JPP-21.1-012825	Q1216-08	BF141421.D	02/04/2025
JPP-18.1-012825	Q1216-04	BF141494.D	02/06/2025
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.: Q1216 SDG NO.: Q1216

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	83.6
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.: Q1216 SDG NO.: Q1216

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	74.1
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.: Q1216 SDG NO.: Q1216

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	77.3
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.: Q1216 SDG NO.: Q1216

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	75.7
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-21.2-012825	Q1216-12	BF141375.D	02/03/2025	18:12
JPP-26.1-012825	Q1216-16	BF141376.D	02/03/2025	18:38
JPP-26.2-012825	Q1216-20	BF141377.D	02/03/2025	19:04

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

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	73.2
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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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

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	81.7
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-21.1-012825	Q1216-08	BF141421.D	02/04/2025	20:52

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1216 SDG NO.: Q1216

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	75.9
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
JPP-18.1-012825	Q1216-04	BF141494.D	02/06/2025	21:30

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.2-012825	99448	6.79	410147	8.08	226351	9.83
02	JPP-26.1-012825	83924	6.79	324478	8.08	176814	9.83
03	JPP-26.2-012825	107263	6.79	439549	8.08	235703	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.2-012825	389099	11.32	282756	13.96	207018	15.41
02	JPP-26.1-012825	304079	11.32	223365	13.96	155322	15.42
03	JPP-26.2-012825	317470	11.32	220783	13.96	155960	15.41

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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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.1-012825	74626	6.79	293999	8.07	165750	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-21.1-012825	297752	11.31	264789	13.96	216090	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

EPA Sample No.: SSTDICCC040 Date Analyzed: 02/06/2025

Lab File ID: BF141476.D Time Analyzed: 12:55

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	89095	6.787	351555	8.08	193385	9.83
	UPPER LIMIT	178190	7.287	703110	8.575	386770	10.328
	LOWER LIMIT	44547.5	6.287	175778	7.575	96692.5	9.328
	EPA SAMPLE NO.						
01	JPP-18.1-012825	90463	6.79	367743	8.07	202265	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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

EPA Sample No.: SSTDICCC040 Date Analyzed: 02/06/2025

Lab File ID: BF141476.D Time Analyzed: 12:55

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	336425	11.316	225462	13.957	182907	15.415
	UPPER LIMIT	672850	11.816	450924	14.457	365814	15.915
	LOWER LIMIT	168213	10.816	112731	13.457	91453.5	14.915
	EPA SAMPLE NO.						
01	JPP-18.1-012825	358530	11.31	234861	13.95	142150	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.

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.:	Q1216
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.:	Q1216
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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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166426BS	SDG No.:	Q1216
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.:	Q1216
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.:	Q1216
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.:	Q1216
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
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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
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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:	01/29/25
Client Sample ID:	BELL-25-002MSD	SDG No.:	Q1216
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.:	Q1216
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
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

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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
Pyridine	1.380	1.264		-8.4	
2-Fluorophenol	1.303	1.284		-1.5	
Phenol-d6	1.657	1.572		-5.1	
1,4-Dichlorobenzene	1.547	1.553		0.4	20.0
2-Methylphenol	1.135	1.080		-4.8	
3+4-Methylphenols	1.393	1.396		0.2	
Nitrobenzene-d5	0.379	0.388		2.4	
Hexachloroethane	0.571	0.577		1.1	
Nitrobenzene	0.393	0.393		0.0	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
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	
2,4-Dinitrotoluene	0.406	0.439		8.1	
2,4,6-Tribromophenol	0.183	0.206		12.6	
Hexachlorobenzene	0.238	0.248		4.2	
Pentachlorophenol	0.139	0.158		13.7	20.0
Terphenyl-d14	1.297	1.228		-5.3	

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	02/03/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**

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LAB CHRONICLE

			Diesel Range Organics	8015D		01/30/25	01/30/25
			Gasoline Range Organics	8015D			01/30/25
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**		**01/29/25**
			PCB	8082A		01/30/25	01/30/25
			Pesticide-TCL	8081B		01/30/25	01/30/25

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Hit Summary Sheet
SW-846

SDG No.: Q1216 **Order ID:** Q1216

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-18.1-012825								
Q1216-03	JPP-18.1-012825	SOIL	Endrin	0.36	JP	0.19	2.00	ug/kg
			Total Concentration:	**0.360**				
Client ID : JPP-21.1-012825								
Q1216-07	JPP-21.1-012825	SOIL	Endrin	0.34	J	0.18	1.90	ug/kg
Q1216-07	JPP-21.1-012825	SOIL	alpha-Chlordane	0.39	J	0.19	1.90	ug/kg
			Total Concentration:	**0.730**				
Client ID : JPP-21.2-012825								
Q1216-11	JPP-21.2-012825	SOIL	Heptachlor	0.27	J	0.20	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	Aldrin	0.43	J	0.17	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	Dieldrin	0.81	J	0.18	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	4,4-DDE	1.70	J	0.15	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	Endrin	0.81	JP	0.19	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	Endosulfan II	0.79	JP	0.36	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	4,4-DDT	3.90	P	0.20	2.00	ug/kg
Q1216-11	JPP-21.2-012825	SOIL	alpha-Chlordane	1.80	JP	0.20	2.00	ug/kg
			Total Concentration:	**10.510**				
Client ID : JPP-26.2-012825								
Q1216-19	JPP-26.2-012825	SOIL	Heptachlor	0.60	JP	0.20	2.00	ug/kg
Q1216-19	JPP-26.2-012825	SOIL	Dieldrin	0.36	JP	0.17	2.00	ug/kg
Q1216-19	JPP-26.2-012825	SOIL	4,4-DDE	1.20	JP	0.15	2.00	ug/kg
Q1216-19	JPP-26.2-012825	SOIL	Endrin	0.39	J	0.19	2.00	ug/kg
Q1216-19	JPP-26.2-012825	SOIL	Endosulfan II	0.76	J	0.35	2.00	ug/kg
Q1216-19	JPP-26.2-012825	SOIL	4,4-DDT	1.80	JP	0.20	2.00	ug/kg
Q1216-19	JPP-26.2-012825	SOIL	alpha-Chlordane	2.60	P	0.20	2.00	ug/kg
			Total Concentration:	**7.710**				

SAMPLE DATA

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	83.3 Decanted:
Sample Wt/Vol:	30.07 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
PL093910.D	1	01/30/25 08:30	01/30/25 20:12	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.00	U	0.22	2.00	ug/kg
319-85-7	beta-BHC	2.00	U	0.59	2.00	ug/kg
319-86-8	delta-BHC	2.00	U	0.56	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	2.00	U	0.23	2.00	ug/kg
76-44-8	Heptachlor	2.00	U	0.20	2.00	ug/kg
309-00-2	Aldrin	2.00	U	0.17	2.00	ug/kg
1024-57-3	Heptachlor epoxide	2.00	U	0.28	2.00	ug/kg
959-98-8	Endosulfan I	2.00	U	0.20	2.00	ug/kg
60-57-1	Dieldrin	2.00	U	0.18	2.00	ug/kg
72-55-9	4,4-DDE	2.00	U	0.16	2.00	ug/kg
72-20-8	Endrin	0.36	JP	0.19	2.00	ug/kg
33213-65-9	Endosulfan II	2.00	U	0.36	2.00	ug/kg
72-54-8	4,4-DDD	2.00	U	0.23	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	2.00	U	0.16	2.00	ug/kg
50-29-3	4,4-DDT	2.00	U	0.20	2.00	ug/kg
72-43-5	Methoxychlor	2.00	U	0.46	2.00	ug/kg
53494-70-5	Endrin ketone	2.00	U	0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	2.00	U	0.47	2.00	ug/kg
5103-71-9	alpha-Chlordane	2.00	U	0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	2.00	U	0.23	2.00	ug/kg
8001-35-2	Toxaphene	39.5	U	6.30	39.5	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	12.8		10 - 148	64%	SPK: 20
877-09-8	Tetrachloro-m-xylene	13.7		10 - 159	68%	SPK: 20

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	83.3 Decanted:
Sample Wt/Vol:	30.07 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
PL093910.D	1	01/30/25 08:30	01/30/25 20:12	PB166359

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	90.4 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
PL093911.D	1	01/30/25 08:30	01/30/25 20:25	PB166359

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	0.54	1.90	ug/kg
319-86-8	delta-BHC	1.90	U	0.52	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	0.15	1.90	ug/kg
1024-57-3	Heptachlor epoxide	1.90	U	0.25	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	0.14	1.90	ug/kg
72-20-8	Endrin	0.34	J	0.18	1.90	ug/kg
33213-65-9	Endosulfan II	1.90	U	0.33	1.90	ug/kg
72-54-8	4,4-DDD	1.90	U	0.21	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	1.90	U	0.14	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	0.42	1.90	ug/kg
53494-70-5	Endrin ketone	1.90	U	0.24	1.90	ug/kg
7421-93-4	Endrin aldehyde	1.90	U	0.43	1.90	ug/kg
5103-71-9	alpha-Chlordane	0.39	J	0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	1.90	U	0.21	1.90	ug/kg
8001-35-2	Toxaphene	36.5	U	5.80	36.5	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	12.5		10 - 148	63%	SPK: 20
877-09-8	Tetrachloro-m-xylene	13.7		10 - 159	68%	SPK: 20

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	90.4 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
PL093911.D	1	01/30/25 08:30	01/30/25 20:25	PB166359

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.3 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
PL093912.D	1	01/30/25 08:30	01/30/25 20:38	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.00	U	0.21	2.00	ug/kg
319-85-7	beta-BHC	2.00	U	0.58	2.00	ug/kg
319-86-8	delta-BHC	2.00	U	0.56	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	2.00	U	0.23	2.00	ug/kg
76-44-8	Heptachlor	0.27	J	0.20	2.00	ug/kg
309-00-2	Aldrin	0.43	J	0.17	2.00	ug/kg
1024-57-3	Heptachlor epoxide	2.00	U	0.27	2.00	ug/kg
959-98-8	Endosulfan I	2.00	U	0.20	2.00	ug/kg
60-57-1	Dieldrin	0.81	J	0.18	2.00	ug/kg
72-55-9	4,4-DDE	1.70	J	0.15	2.00	ug/kg
72-20-8	Endrin	0.81	JP	0.19	2.00	ug/kg
33213-65-9	Endosulfan II	0.79	JP	0.36	2.00	ug/kg
72-54-8	4,4-DDD	2.00	U	0.23	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	2.00	U	0.15	2.00	ug/kg
50-29-3	4,4-DDT	3.90	P	0.20	2.00	ug/kg
72-43-5	Methoxychlor	2.00	U	0.45	2.00	ug/kg
53494-70-5	Endrin ketone	2.00	U	0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	2.00	U	0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	1.80	JP	0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	2.00	U	0.23	2.00	ug/kg
8001-35-2	Toxaphene	39.1	U	6.20	39.1	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.3		10 - 148	76%	SPK: 20
877-09-8	Tetrachloro-m-xylene	14.8		10 - 159	74%	SPK: 20

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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.3 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
PL093912.D	1	01/30/25 08:30	01/30/25 20:38	PB166359

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	82.8 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
PL093983.D	1	01/30/25 08:30	02/03/25 12:40	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.00	U	0.22	2.00	ug/kg
319-85-7	beta-BHC	2.00	U	0.59	2.00	ug/kg
319-86-8	delta-BHC	2.00	U	0.57	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	2.00	U	0.23	2.00	ug/kg
76-44-8	Heptachlor	2.00	U	0.20	2.00	ug/kg
309-00-2	Aldrin	2.00	U	0.17	2.00	ug/kg
1024-57-3	Heptachlor epoxide	2.00	U	0.28	2.00	ug/kg
959-98-8	Endosulfan I	2.00	U	0.20	2.00	ug/kg
60-57-1	Dieldrin	2.00	U	0.18	2.00	ug/kg
72-55-9	4,4-DDE	2.00	U	0.16	2.00	ug/kg
72-20-8	Endrin	2.00	U	0.19	2.00	ug/kg
33213-65-9	Endosulfan II	2.00	U	0.36	2.00	ug/kg
72-54-8	4,4-DDD	2.00	U	0.23	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	2.00	U	0.16	2.00	ug/kg
50-29-3	4,4-DDT	2.00	U	0.20	2.00	ug/kg
72-43-5	Methoxychlor	2.00	U	0.46	2.00	ug/kg
53494-70-5	Endrin ketone	2.00	U	0.27	2.00	ug/kg
7421-93-4	Endrin aldehyde	2.00	U	0.47	2.00	ug/kg
5103-71-9	alpha-Chlordane	2.00	U	0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	2.00	U	0.23	2.00	ug/kg
8001-35-2	Toxaphene	39.8	U	6.30	39.8	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	33.8	*	10 - 148	169%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.0		10 - 159	95%	SPK: 20

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	82.8 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
PL093983.D	1	01/30/25 08:30	02/03/25 12:40	PB166359

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.8 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
PL093913.D	1	01/30/25 08:30	01/30/25 20:51	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.00	U	0.21	2.00	ug/kg
319-85-7	beta-BHC	2.00	U	0.57	2.00	ug/kg
319-86-8	delta-BHC	2.00	U	0.55	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	2.00	U	0.22	2.00	ug/kg
76-44-8	Heptachlor	0.60	JP	0.20	2.00	ug/kg
309-00-2	Aldrin	2.00	U	0.16	2.00	ug/kg
1024-57-3	Heptachlor epoxide	2.00	U	0.27	2.00	ug/kg
959-98-8	Endosulfan I	2.00	U	0.20	2.00	ug/kg
60-57-1	Dieldrin	0.36	JP	0.17	2.00	ug/kg
72-55-9	4,4-DDE	1.20	JP	0.15	2.00	ug/kg
72-20-8	Endrin	0.39	J	0.19	2.00	ug/kg
33213-65-9	Endosulfan II	0.76	J	0.35	2.00	ug/kg
72-54-8	4,4-DDD	2.00	U	0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	2.00	U	0.15	2.00	ug/kg
50-29-3	4,4-DDT	1.80	JP	0.20	2.00	ug/kg
72-43-5	Methoxychlor	2.00	U	0.44	2.00	ug/kg
53494-70-5	Endrin ketone	2.00	U	0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	2.00	U	0.45	2.00	ug/kg
5103-71-9	alpha-Chlordane	2.60	P	0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	2.00	U	0.22	2.00	ug/kg
8001-35-2	Toxaphene	38.4	U	6.10	38.4	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	14.1		10 - 148	71%	SPK: 20
877-09-8	Tetrachloro-m-xylene	13.2		10 - 159	66%	SPK: 20

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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.8 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
PL093913.D	1	01/30/25 08:30	01/30/25 20:51	PB166359

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

QC SUMMARY

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Surrogate Summary

SDG No.: Q1216

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-PL093904.D	PIBLK-PL093904.D	Decachlorobiphenyl	1	20	20.2	101		43	140
		Tetrachloro-m-xylene	1	20	19.1	96		77	126
		Decachlorobiphenyl	2	20	16.0	80		43	140
		Tetrachloro-m-xylene	2	20	18.6	93		77	126
PB166359BL	PB166359BL	Decachlorobiphenyl	1	20	23.6	118		10	148
		Tetrachloro-m-xylene	1	20	21.1	106		10	159
		Decachlorobiphenyl	2	20	22.5	112		10	148
		Tetrachloro-m-xylene	2	20	21.6	108		10	159
PB166359BS	PB166359BS	Decachlorobiphenyl	1	20	23.4	117		10	148
		Tetrachloro-m-xylene	1	20	20.6	103		10	159
		Decachlorobiphenyl	2	20	22.0	110		10	148
		Tetrachloro-m-xylene	2	20	20.0	100		10	159
Q1216-03	JPP-18.1-012825	Decachlorobiphenyl	1	20	12.8	64		10	148
		Tetrachloro-m-xylene	1	20	13.1	65		10	159
		Decachlorobiphenyl	2	20	10.6	53		10	148
		Tetrachloro-m-xylene	2	20	13.7	68		10	159
Q1216-07	JPP-21.1-012825	Decachlorobiphenyl	1	20	12.5	63		10	148
		Tetrachloro-m-xylene	1	20	13.5	68		10	159
		Decachlorobiphenyl	2	20	10.4	52		10	148
		Tetrachloro-m-xylene	2	20	13.7	68		10	159
Q1216-11	JPP-21.2-012825	Decachlorobiphenyl	1	20	15.3	76		10	148
		Tetrachloro-m-xylene	1	20	14.8	74		10	159
		Decachlorobiphenyl	2	20	12.7	63		10	148
		Tetrachloro-m-xylene	2	20	14.7	74		10	159
Q1216-19	JPP-26.2-012825	Decachlorobiphenyl	1	20	14.1	71		10	148
		Tetrachloro-m-xylene	1	20	12.8	64		10	159
		Decachlorobiphenyl	2	20	11.8	59		10	148
		Tetrachloro-m-xylene	2	20	13.2	66		10	159
I.BLK-PL093917.D	PIBLK-PL093917.D	Decachlorobiphenyl	1	20	21.2	106		43	140
		Tetrachloro-m-xylene	1	20	19.3	96		77	126
		Decachlorobiphenyl	2	20	18.1	90		43	140
		Tetrachloro-m-xylene	2	20	18.6	93		77	126
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
Q1215-03MS	JPP-29.1-012825MS	Decachlorobiphenyl	1	20	16.0	80		10	148

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Surrogate Summary

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1215-03MS	JPP-29.1-012825MS	Tetrachloro-m-xylene	1	20	14.9	75		10	159
		Decachlorobiphenyl	2	20	15.1	76		10	148
		Tetrachloro-m-xylene	2	20	16.8	84		10	159
Q1215-03MSD	JPP-29.1-012825MSD	Decachlorobiphenyl	1	20	15.1	75		10	148
		Tetrachloro-m-xylene	1	20	14.5	73		10	159
		Decachlorobiphenyl	2	20	14.5	72		10	148
		Tetrachloro-m-xylene	2	20	16.6	83		10	159
I.BLK-PL093977.D	PIBLK-PL093977.D	Decachlorobiphenyl	1	20	18.9	94		43	140
		Tetrachloro-m-xylene	1	20	21.9	109		77	126
		Decachlorobiphenyl	2	20	18.1	91		43	140
		Tetrachloro-m-xylene	2	20	21.0	105		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
Q1216-15	JPP-26.1-012825	Decachlorobiphenyl	1	20	29.0	145		10	148
		Tetrachloro-m-xylene	1	20	15.8	79		10	159
		Decachlorobiphenyl	2	20	33.8	169	*	10	148
		Tetrachloro-m-xylene	2	20	19.0	95		10	159
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

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093973.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-29.1-012825MS**											
Q1215-03MS	alpha-BHC	18.73	0	17.8	ug/kg	95				60	144	
	beta-BHC	18.73	0	17.0	ug/kg	91				54	143	
	delta-BHC	18.73	0	17.6	ug/kg	94				47	144	
	gamma-BHC (Lindane)	18.73	0	18.7	ug/kg	100				61	140	
	Heptachlor	18.73	0	17.8	ug/kg	95				63	135	
	Aldrin	18.73	0	17.0	ug/kg	91				49	139	
	Heptachlor epoxide	18.73	0	17.1	ug/kg	91				32	180	
	Endosulfan I	18.73	0	16.7	ug/kg	89				56	142	
	Dieldrin	18.73	0	16.7	ug/kg	89				47	161	
	4,4'-DDE	18.73	0	17.6	ug/kg	94				55	136	
	Endrin	18.73	0	17.7	ug/kg	95				57	139	
	Endosulfan II	18.73	0	16.6	ug/kg	89				40	163	
	4,4'-DDD	18.73	1.5	19.0	ug/kg	93				37	192	
	Endosulfan sulfate	18.73	0	15.7	ug/kg	84				62	139	
	4,4'-DDT	18.73	0	17.1	ug/kg	91				51	146	
	Methoxychlor	18.73	0	16.3	ug/kg	87				54	136	
	Endrin ketone	18.73	0	15.7	ug/kg	84				60	129	
	Endrin aldehyde	18.73	0	15.1	ug/kg	81				59	132	
	alpha-Chlordane	18.73	0	18.2	ug/kg	97				30	192	
	gamma-Chlordane	18.73	0	20.1	ug/kg	107				44	175	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093974.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**											
Q1215-03MSD	alpha-BHC	18.72	0	17.6	ug/kg	94		1		60	144	20
	beta-BHC	18.72	0	18.6	ug/kg	99		8		54	143	20
	delta-BHC	18.72	0	17.5	ug/kg	93		1		47	144	20
	gamma-BHC (Lindane)	18.72	0	18.5	ug/kg	99		1		61	140	20
	Heptachlor	18.72	0	17.5	ug/kg	93		2		63	135	20
	Aldrin	18.72	0	16.7	ug/kg	89		2		49	139	20
	Heptachlor epoxide	18.72	0	16.8	ug/kg	90		1		32	180	20
	Endosulfan I	18.72	0	15.9	ug/kg	85		5		56	142	20
	Dieldrin	18.72	0	16.3	ug/kg	87		2		47	161	20
	4,4'-DDE	18.72	0	16.4	ug/kg	88		7		55	136	20
	Endrin	18.72	0	17.5	ug/kg	93		2		57	139	20
	Endosulfan II	18.72	0	16.2	ug/kg	87		2		40	163	20
	4,4'-DDD	18.72	1.5	18.7	ug/kg	92		1		37	192	20
	Endosulfan sulfate	18.72	0	15.4	ug/kg	82		2		62	139	20
	4,4'-DDT	18.72	0	16.3	ug/kg	87		4		51	146	20
	Methoxychlor	18.72	0	15.8	ug/kg	84		4		54	136	20
	Endrin ketone	18.72	0	15.0	ug/kg	80		5		60	129	20
	Endrin aldehyde	18.72	0	14.7	ug/kg	79		3		59	132	20
	alpha-Chlordane	18.72	0	17.6	ug/kg	94		3		30	192	20
	gamma-Chlordane	18.72	0	19.6	ug/kg	105		2		44	175	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL093908.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166359BS	alpha-BHC	16.65	16.6	ug/kg	100				84	123	
	beta-BHC	16.65	16.9	ug/kg	102				82	123	
	delta-BHC	16.65	16.4	ug/kg	98				83	126	
	gamma-BHC (Lindane)	16.65	16.3	ug/kg	98				83	125	
	Heptachlor	16.65	16.6	ug/kg	100				83	122	
	Aldrin	16.65	16.5	ug/kg	99				82	124	
	Heptachlor epoxide	16.65	17.1	ug/kg	103				83	120	
	Endosulfan I	16.65	17.6	ug/kg	106				81	124	
	Dieldrin	16.65	17.3	ug/kg	104				85	121	
	4,4'-DDE	16.65	18.2	ug/kg	109				81	123	
	Endrin	16.65	16.1	ug/kg	97				76	130	
	Endosulfan II	16.65	17.6	ug/kg	106				80	125	
	4,4'-DDD	16.65	19.6	ug/kg	118				80	131	
	Endosulfan sulfate	16.65	17.5	ug/kg	105				81	122	
	4,4'-DDT	16.65	16.6	ug/kg	100				70	129	
	Methoxychlor	16.65	16.3	ug/kg	98				60	119	
	Endrin ketone	16.65	17.8	ug/kg	107				77	132	
	Endrin aldehyde	16.65	16.9	ug/kg	102				79	124	
	alpha-Chlordane	16.65	17.6	ug/kg	106				84	120	
	gamma-Chlordane	16.65	17.8	ug/kg	107				83	122	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166359BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab Sample ID: PB166359BL Lab File ID: PL093907.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/30/2025

Date Analyzed (1): 01/30/2025 Date Analyzed (2): 01/30/2025

Time Analyzed (1): 19:32 Time Analyzed (2): 19:32

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
PB166359BS	PB166359BS	PL093908.D	01/30/2025	01/30/2025
JPP-18.1-012825	Q1216-03	PL093910.D	01/30/2025	01/30/2025
JPP-21.1-012825	Q1216-07	PL093911.D	01/30/2025	01/30/2025
JPP-21.2-012825	Q1216-11	PL093912.D	01/30/2025	01/30/2025
JPP-26.2-012825	Q1216-19	PL093913.D	01/30/2025	01/30/2025
JPP-29.1-012825MS	Q1215-03MS	PL093973.D	02/01/2025	02/01/2025
JPP-29.1-012825MSD	Q1215-03MSD	PL093974.D	02/01/2025	02/01/2025
JPP-26.1-012825	Q1216-15	PL093983.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:	PB166359BL	SDG No.:	Q1216
Lab Sample ID:	PB166359BL	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
PL093907.D	1	01/30/25 08:30	01/30/25 19:32	PB166359

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	23.6		10 - 148	118%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		10 - 159	108%	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:	PB166359BL	SDG No.:	Q1216
Lab Sample ID:	PB166359BL	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
PL093907.D	1	01/30/25 08:30	01/30/25 19:32	PB166359

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.:	Q1216
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.:	Q1216
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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093904.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093904.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
PL093904.D	1		01/30/25	pl013025

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	20.2		43 - 140	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.1		77 - 126	96%	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:	PIBLK-PL093904.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093904.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
PL093904.D	1		01/30/25	pl013025

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:	PIBLK-PL093917.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093917.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
PL093917.D	1		01/30/25	pl013025

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	21.2		43 - 140	106%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.3		77 - 126	96%	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:	PIBLK-PL093917.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093917.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
PL093917.D	1		01/30/25	pl013025

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.:	Q1216
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.:	Q1216
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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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-PL093977.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093977.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
PL093977.D	1		02/01/25	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	18.9		43 - 140	94%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.9		77 - 126	109%	SPK: 20

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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-PL093977.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093977.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
PL093977.D	1		02/01/25	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:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093980.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093980.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
PL093980.D	1		02/03/25	pl020325

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	21.6		43 - 140	108%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.2		77 - 126	111%	SPK: 20

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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-PL093980.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093980.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
PL093980.D	1		02/03/25	pl020325

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:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093999.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093999.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
PL093999.D	1		02/03/25	pl020325

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	28.1		43 - 140	140%	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:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093999.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PL093999.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
PL093999.D	1		02/03/25	pl020325

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:	PB166359BS	SDG No.:	Q1216
Lab Sample ID:	PB166359BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 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
PL093908.D	1	01/30/25 08:30	01/30/25 19:45	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	16.6		0.18	1.70	ug/kg
319-85-7	beta-BHC	16.9		0.49	1.70	ug/kg
319-86-8	delta-BHC	16.4		0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	16.3		0.19	1.70	ug/kg
76-44-8	Heptachlor	16.6		0.17	1.70	ug/kg
309-00-2	Aldrin	16.5		0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	17.1		0.23	1.70	ug/kg
959-98-8	Endosulfan I	17.6		0.17	1.70	ug/kg
60-57-1	Dieldrin	17.3		0.15	1.70	ug/kg
72-55-9	4,4-DDE	18.2		0.13	1.70	ug/kg
72-20-8	Endrin	16.1		0.16	1.70	ug/kg
33213-65-9	Endosulfan II	17.6		0.30	1.70	ug/kg
72-54-8	4,4-DDD	19.6		0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	17.5		0.13	1.70	ug/kg
50-29-3	4,4-DDT	16.6		0.17	1.70	ug/kg
72-43-5	Methoxychlor	16.3		0.38	1.70	ug/kg
53494-70-5	Endrin ketone	17.8		0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	16.9		0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	17.6		0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	17.8		0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.4		10 - 148	117%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.6		10 - 159	103%	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:	PB166359BS	SDG No.:	Q1216
Lab Sample ID:	PB166359BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 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
PL093908.D	1	01/30/25 08:30	01/30/25 19:45	PB166359

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MS	SDG No.:	Q1216
Lab Sample ID:	Q1215-03MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.8 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
PL093973.D	1	01/30/25 08:30	02/01/25 01:24	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	17.8		0.20	1.90	ug/kg
319-85-7	beta-BHC	17.0		0.55	1.90	ug/kg
319-86-8	delta-BHC	17.6		0.53	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	18.7		0.21	1.90	ug/kg
76-44-8	Heptachlor	17.8		0.19	1.90	ug/kg
309-00-2	Aldrin	17.0		0.16	1.90	ug/kg
1024-57-3	Heptachlor epoxide	17.1		0.26	1.90	ug/kg
959-98-8	Endosulfan I	16.7	P	0.19	1.90	ug/kg
60-57-1	Dieldrin	16.7		0.17	1.90	ug/kg
72-55-9	4,4-DDE	17.6	P	0.15	1.90	ug/kg
72-20-8	Endrin	17.7		0.18	1.90	ug/kg
33213-65-9	Endosulfan II	16.6		0.34	1.90	ug/kg
72-54-8	4,4-DDD	19.0		0.21	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	15.7		0.15	1.90	ug/kg
50-29-3	4,4-DDT	17.1		0.19	1.90	ug/kg
72-43-5	Methoxychlor	16.3		0.43	1.90	ug/kg
53494-70-5	Endrin ketone	15.7		0.25	1.90	ug/kg
7421-93-4	Endrin aldehyde	15.1		0.44	1.90	ug/kg
5103-71-9	alpha-Chlordane	18.2		0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	20.1		0.21	1.90	ug/kg
8001-35-2	Toxaphene	37.1	U	5.90	37.1	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.0		10 - 148	80%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.8		10 - 159	84%	SPK: 20

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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.:	Q1216
Lab Sample ID:	Q1215-03MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.8 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
PL093973.D	1	01/30/25 08:30	02/01/25 01:24	PB166359

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1216
Lab Sample ID:	Q1215-03MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.8 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
PL093974.D	1	01/30/25 08:30	02/01/25 01:37	PB166359

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	17.6		0.20	1.90	ug/kg
319-85-7	beta-BHC	18.6	P	0.55	1.90	ug/kg
319-86-8	delta-BHC	17.5		0.53	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	18.5		0.21	1.90	ug/kg
76-44-8	Heptachlor	17.5		0.19	1.90	ug/kg
309-00-2	Aldrin	16.7		0.16	1.90	ug/kg
1024-57-3	Heptachlor epoxide	16.8		0.26	1.90	ug/kg
959-98-8	Endosulfan I	15.9	P	0.19	1.90	ug/kg
60-57-1	Dieldrin	16.3		0.17	1.90	ug/kg
72-55-9	4,4-DDE	16.4	P	0.15	1.90	ug/kg
72-20-8	Endrin	17.5		0.18	1.90	ug/kg
33213-65-9	Endosulfan II	16.2		0.34	1.90	ug/kg
72-54-8	4,4-DDD	18.7		0.21	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	15.4		0.15	1.90	ug/kg
50-29-3	4,4-DDT	16.3		0.19	1.90	ug/kg
72-43-5	Methoxychlor	15.8		0.43	1.90	ug/kg
53494-70-5	Endrin ketone	15.0		0.25	1.90	ug/kg
7421-93-4	Endrin aldehyde	14.7		0.44	1.90	ug/kg
5103-71-9	alpha-Chlordane	17.6		0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	19.6		0.21	1.90	ug/kg
8001-35-2	Toxaphene	37.1	U	5.90	37.1	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.1		10 - 148	75%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.6		10 - 159	83%	SPK: 20

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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.:	Q1216
Lab Sample ID:	Q1215-03MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.8 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
PL093974.D	1	01/30/25 08:30	02/01/25 01:37	PB166359

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

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:06 **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	9.05	9.05	8.95	9.15	0.00
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:06 **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	4.13	4.14	4.04	4.24	0.01
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	0.01
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093906.D **Time Analyzed:** 19:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.708	6.608	6.808	51.280	50.000	2.6
4,4'-DDE	6.190	6.091	6.291	47.710	50.000	-4.6
4,4'-DDT	7.021	6.922	7.122	43.720	50.000	-12.6
Aldrin	5.255	5.156	5.356	44.150	50.000	-11.7
alpha-BHC	3.993	3.895	4.095	45.670	50.000	-8.7
alpha-Chlordane	6.017	5.917	6.117	45.590	50.000	-8.8
beta-BHC	4.524	4.425	4.625	46.550	50.000	-6.9
Decachlorobiphenyl	9.053	8.953	9.153	45.970	50.000	-8.1
delta-BHC	4.771	4.672	4.872	45.080	50.000	-9.8
Dieldrin	6.343	6.243	6.443	44.310	50.000	-11.4
Endosulfan I	6.067	5.967	6.167	44.670	50.000	-10.7
Endosulfan II	6.792	6.692	6.892	44.900	50.000	-10.2
Endosulfan sulfate	7.157	7.057	7.257	44.430	50.000	-11.1
Endrin	6.571	6.472	6.672	41.650	50.000	-16.7
Endrin aldehyde	6.922	6.823	7.023	44.090	50.000	-11.8
Endrin ketone	7.642	7.542	7.742	45.310	50.000	-9.4
gamma-BHC (Lindane)	4.326	4.227	4.427	45.020	50.000	-10.0
gamma-Chlordane	5.937	5.838	6.038	46.090	50.000	-7.8
Heptachlor	4.914	4.814	5.014	45.190	50.000	-9.6
Heptachlor epoxide	5.681	5.582	5.782	43.240	50.000	-13.5
Methoxychlor	7.498	7.398	7.598	44.720	50.000	-10.6
Tetrachloro-m-xylene	3.537	3.439	3.639	45.460	50.000	-9.1

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093906.D **Time Analyzed:** 19:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	51.980	50.000	4.0
4,4'-DDE	5.229	5.130	5.330	49.710	50.000	-0.6
4,4'-DDT	6.034	5.934	6.134	43.660	50.000	-12.7
Aldrin	4.223	4.125	4.325	45.790	50.000	-8.4
alpha-BHC	3.276	3.177	3.377	47.430	50.000	-5.1
alpha-Chlordane	5.039	4.940	5.140	48.080	50.000	-3.8
beta-BHC	3.906	3.807	4.007	48.150	50.000	-3.7
Decachlorobiphenyl	7.909	7.810	8.010	45.120	50.000	-9.8
delta-BHC	4.134	4.036	4.236	46.050	50.000	-7.9
Dieldrin	5.360	5.261	5.461	46.390	50.000	-7.2
Endosulfan I	5.095	4.996	5.196	44.980	50.000	-10.0
Endosulfan II	5.931	5.831	6.031	46.350	50.000	-7.3
Endosulfan sulfate	6.333	6.233	6.433	45.570	50.000	-8.9
Endrin	5.635	5.536	5.736	44.130	50.000	-11.7
Endrin aldehyde	6.110	6.010	6.210	43.640	50.000	-12.7
Endrin ketone	6.837	6.739	6.939	45.440	50.000	-9.1
gamma-BHC (Lindane)	3.606	3.507	3.707	46.060	50.000	-7.9
gamma-Chlordane	4.976	4.877	5.077	48.720	50.000	-2.6
Heptachlor	3.944	3.845	4.045	45.820	50.000	-8.4
Heptachlor epoxide	4.726	4.627	4.827	46.510	50.000	-7.0
Methoxychlor	6.609	6.509	6.709	42.130	50.000	-15.7
Tetrachloro-m-xylene	2.774	2.674	2.874	46.540	50.000	-6.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 22:23 **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	9.05	9.05	8.95	9.15	0.00
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 22:23 **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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093919.D **Time Analyzed:** 22:23

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.709	6.608	6.808	60.970	50.000	21.9
4,4'-DDE	6.191	6.091	6.291	56.740	50.000	13.5
4,4'-DDT	7.022	6.922	7.122	48.470	50.000	-3.1
Aldrin	5.256	5.156	5.356	51.830	50.000	3.7
alpha-BHC	3.993	3.895	4.095	54.130	50.000	8.3
alpha-Chlordane	6.017	5.917	6.117	53.270	50.000	6.5
beta-BHC	4.524	4.425	4.625	54.640	50.000	9.3
Decachlorobiphenyl	9.054	8.953	9.153	53.360	50.000	6.7
delta-BHC	4.772	4.672	4.872	53.190	50.000	6.4
Dieldrin	6.343	6.243	6.443	52.360	50.000	4.7
Endosulfan I	6.068	5.967	6.167	52.270	50.000	4.5
Endosulfan II	6.793	6.692	6.892	52.030	50.000	4.1
Endosulfan sulfate	7.157	7.057	7.257	51.360	50.000	2.7
Endrin	6.572	6.472	6.672	45.130	50.000	-9.7
Endrin aldehyde	6.923	6.823	7.023	51.770	50.000	3.5
Endrin ketone	7.642	7.542	7.742	54.350	50.000	8.7
gamma-BHC (Lindane)	4.326	4.227	4.427	52.880	50.000	5.8
gamma-Chlordane	5.939	5.838	6.038	54.140	50.000	8.3
Heptachlor	4.914	4.814	5.014	51.790	50.000	3.6
Heptachlor epoxide	5.683	5.582	5.782	51.110	50.000	2.2
Methoxychlor	7.499	7.398	7.598	49.050	50.000	-1.9
Tetrachloro-m-xylene	3.537	3.439	3.639	53.460	50.000	6.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093919.D **Time Analyzed:** 22:23

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	64.470	50.000	28.9
4,4'-DDE	5.229	5.130	5.330	57.870	50.000	15.7
4,4'-DDT	6.034	5.934	6.134	49.080	50.000	-1.8
Aldrin	4.224	4.125	4.325	53.800	50.000	7.6
alpha-BHC	3.276	3.177	3.377	56.170	50.000	12.3
alpha-Chlordane	5.040	4.940	5.140	55.870	50.000	11.7
beta-BHC	3.906	3.807	4.007	56.120	50.000	12.2
Decachlorobiphenyl	7.910	7.810	8.010	51.760	50.000	3.5
delta-BHC	4.135	4.036	4.236	54.350	50.000	8.7
Dieldrin	5.361	5.261	5.461	54.670	50.000	9.3
Endosulfan I	5.096	4.996	5.196	55.230	50.000	10.5
Endosulfan II	5.931	5.831	6.031	55.730	50.000	11.5
Endosulfan sulfate	6.333	6.233	6.433	54.550	50.000	9.1
Endrin	5.636	5.536	5.736	48.300	50.000	-3.4
Endrin aldehyde	6.110	6.010	6.210	52.410	50.000	4.8
Endrin ketone	6.838	6.739	6.939	54.500	50.000	9.0
gamma-BHC (Lindane)	3.606	3.507	3.707	54.470	50.000	8.9
gamma-Chlordane	4.976	4.877	5.077	56.400	50.000	12.8
Heptachlor	3.944	3.845	4.045	52.860	50.000	5.7
Heptachlor epoxide	4.726	4.627	4.827	54.190	50.000	8.4
Methoxychlor	6.609	6.509	6.709	46.490	50.000	-7.0
Tetrachloro-m-xylene	2.773	2.674	2.874	54.850	50.000	9.7

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/01/2025

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/01/2025

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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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 02:56 **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	4.92	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	6.34	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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 02:56 **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	6.04	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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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 :** PL093978.D **Time Analyzed:** 02:56

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.709	6.608	6.808	54.040	50.000	8.1
4,4'-DDE	6.192	6.091	6.291	50.390	50.000	0.8
4,4'-DDT	7.024	6.922	7.122	41.300	50.000	-17.4
Aldrin	5.256	5.156	5.356	47.580	50.000	-4.8
alpha-BHC	3.994	3.895	4.095	50.300	50.000	0.6
alpha-Chlordane	6.018	5.917	6.117	47.510	50.000	-5.0
beta-BHC	4.524	4.425	4.625	49.340	50.000	-1.3
Decachlorobiphenyl	9.056	8.953	9.153	43.190	50.000	-13.6
delta-BHC	4.772	4.672	4.872	47.870	50.000	-4.3
Dieldrin	6.344	6.243	6.443	46.180	50.000	-7.6
Endosulfan I	6.069	5.967	6.167	46.540	50.000	-6.9
Endosulfan II	6.794	6.692	6.892	44.560	50.000	-10.9
Endosulfan sulfate	7.159	7.057	7.257	42.410	50.000	-15.2
Endrin	6.572	6.472	6.672	43.270	50.000	-13.5
Endrin aldehyde	6.924	6.823	7.023	43.010	50.000	-14.0
Endrin ketone	7.644	7.542	7.742	42.580	50.000	-14.8
gamma-BHC (Lindane)	4.326	4.227	4.427	48.630	50.000	-2.7
gamma-Chlordane	5.939	5.838	6.038	48.450	50.000	-3.1
Heptachlor	4.915	4.814	5.014	47.510	50.000	-5.0
Heptachlor epoxide	5.683	5.582	5.782	46.030	50.000	-7.9
Methoxychlor	7.500	7.398	7.598	40.730	50.000	-18.5
Tetrachloro-m-xylene	3.537	3.439	3.639	50.140	50.000	0.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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 :** PL093978.D **Time Analyzed:** 02:56

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	56.720	50.000	13.4
4,4'-DDE	5.229	5.130	5.330	52.970	50.000	5.9
4,4'-DDT	6.035	5.934	6.134	43.150	50.000	-13.7
Aldrin	4.224	4.125	4.325	48.890	50.000	-2.2
alpha-BHC	3.276	3.177	3.377	51.570	50.000	3.1
alpha-Chlordane	5.040	4.940	5.140	50.170	50.000	0.3
beta-BHC	3.906	3.807	4.007	51.640	50.000	3.3
Decachlorobiphenyl	7.911	7.810	8.010	41.330	50.000	-17.3
delta-BHC	4.135	4.036	4.236	48.860	50.000	-2.3
Dieldrin	5.361	5.261	5.461	48.850	50.000	-2.3
Endosulfan I	5.096	4.996	5.196	44.640	50.000	-10.7
Endosulfan II	5.932	5.831	6.031	48.980	50.000	-2.0
Endosulfan sulfate	6.333	6.233	6.433	46.240	50.000	-7.5
Endrin	5.636	5.536	5.736	48.540	50.000	-2.9
Endrin aldehyde	6.111	6.010	6.210	44.410	50.000	-11.2
Endrin ketone	6.839	6.739	6.939	45.150	50.000	-9.7
gamma-BHC (Lindane)	3.606	3.507	3.707	49.720	50.000	-0.6
gamma-Chlordane	4.977	4.877	5.077	51.180	50.000	2.4
Heptachlor	3.944	3.845	4.045	47.890	50.000	-4.2
Heptachlor epoxide	4.726	4.627	4.827	48.980	50.000	-2.0
Methoxychlor	6.610	6.509	6.709	41.430	50.000	-17.1
Tetrachloro-m-xylene	2.774	2.674	2.874	51.060	50.000	2.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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
alpha-BHC	4.00	4.00	3.90	4.10	0.00
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.78	4.77	4.67	4.87	-0.01
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.69	5.68	5.58	5.78	-0.01
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.35	6.34	6.24	6.44	-0.01
4,4'-DDE	6.20	6.19	6.09	6.29	-0.01
Endrin	6.58	6.57	6.47	6.67	-0.01
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	-0.01
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	5.95	5.94	5.84	6.04	-0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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
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	0.00
Aldrin	4.23	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	-0.01
Endosulfan sulfate	6.34	6.33	6.23	6.43	-0.01
4,4'-DDT	6.04	6.03	5.93	6.13	-0.01
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL05 **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
4,4'-DDD	6.714	6.608	6.808	53.910	50.000	7.8
4,4'-DDE	6.197	6.091	6.291	57.020	50.000	14.0
4,4'-DDT	7.028	6.922	7.122	54.800	50.000	9.6
Aldrin	5.262	5.156	5.356	54.550	50.000	9.1
alpha-BHC	4.000	3.895	4.095	55.510	50.000	11.0
alpha-Chlordane	6.023	5.917	6.117	53.230	50.000	6.5
beta-BHC	4.531	4.425	4.625	53.120	50.000	6.2
Decachlorobiphenyl	9.061	8.953	9.153	48.630	50.000	-2.7
delta-BHC	4.778	4.672	4.872	51.810	50.000	3.6
Dieldrin	6.349	6.243	6.443	51.940	50.000	3.9
Endosulfan I	6.074	5.967	6.167	52.560	50.000	5.1
Endosulfan II	6.799	6.692	6.892	50.640	50.000	1.3
Endosulfan sulfate	7.163	7.057	7.257	49.820	50.000	-0.4
Endrin	6.577	6.472	6.672	51.580	50.000	3.2
Endrin aldehyde	6.929	6.823	7.023	50.780	50.000	1.6
Endrin ketone	7.649	7.542	7.742	49.190	50.000	-1.6
gamma-BHC (Lindane)	4.333	4.227	4.427	55.370	50.000	10.7
gamma-Chlordane	5.945	5.838	6.038	52.530	50.000	5.1
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL05 **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
4,4'-DDD	5.786	5.684	5.884	57.880	50.000	15.8
4,4'-DDE	5.231	5.130	5.330	58.070	50.000	16.1
4,4'-DDT	6.036	5.934	6.134	57.560	50.000	15.1
Aldrin	4.225	4.125	4.325	54.700	50.000	9.4
alpha-BHC	3.277	3.177	3.377	55.070	50.000	10.1
alpha-Chlordane	5.042	4.940	5.140	54.800	50.000	9.6
beta-BHC	3.908	3.807	4.007	53.880	50.000	7.8
Decachlorobiphenyl	7.913	7.810	8.010	46.730	50.000	-6.5
delta-BHC	4.136	4.036	4.236	55.730	50.000	11.5
Dieldrin	5.362	5.261	5.461	54.840	50.000	9.7
Endosulfan I	5.098	4.996	5.196	50.250	50.000	0.5
Endosulfan II	5.933	5.831	6.031	53.210	50.000	6.4
Endosulfan sulfate	6.335	6.233	6.433	53.020	50.000	6.0
Endrin	5.638	5.536	5.736	52.920	50.000	5.8
Endrin aldehyde	6.112	6.010	6.210	52.380	50.000	4.8
Endrin ketone	6.839	6.739	6.939	53.930	50.000	7.9
gamma-BHC (Lindane)	3.608	3.507	3.707	52.550	50.000	5.1
gamma-Chlordane	4.978	4.877	5.077	55.110	50.000	10.2
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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
alpha-BHC	4.00	4.00	3.90	4.10	0.00
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	-0.01
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	6.58	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	7.02	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	6.93	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

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL06 **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
4,4'-DDD	6.710	6.608	6.808	56.960	50.000	13.9
4,4'-DDE	6.193	6.091	6.291	57.800	50.000	15.6
4,4'-DDT	7.024	6.922	7.122	55.110	50.000	10.2
Aldrin	5.257	5.156	5.356	54.810	50.000	9.6
alpha-BHC	3.996	3.895	4.095	54.020	50.000	8.0
alpha-Chlordane	6.019	5.917	6.117	53.440	50.000	6.9
beta-BHC	4.527	4.425	4.625	53.760	50.000	7.5
Decachlorobiphenyl	9.055	8.953	9.153	50.120	50.000	0.2
delta-BHC	4.773	4.672	4.872	54.410	50.000	8.8
Dieldrin	6.345	6.243	6.443	53.270	50.000	6.5
Endosulfan I	6.070	5.967	6.167	53.210	50.000	6.4
Endosulfan II	6.795	6.692	6.892	51.710	50.000	3.4
Endosulfan sulfate	7.159	7.057	7.257	51.370	50.000	2.7
Endrin	6.575	6.472	6.672	53.310	50.000	6.6
Endrin aldehyde	6.925	6.823	7.023	51.420	50.000	2.8
Endrin ketone	7.644	7.542	7.742	50.570	50.000	1.1
gamma-BHC (Lindane)	4.328	4.227	4.427	53.780	50.000	7.6
gamma-Chlordane	5.941	5.838	6.038	52.970	50.000	5.9
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL06 **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
4,4'-DDD	5.784	5.684	5.884	60.000	50.000	20.0
4,4'-DDE	5.229	5.130	5.330	57.800	50.000	15.6
4,4'-DDT	6.034	5.934	6.134	58.740	50.000	17.5
Aldrin	4.224	4.125	4.325	54.770	50.000	9.5
alpha-BHC	3.276	3.177	3.377	54.960	50.000	9.9
alpha-Chlordane	5.040	4.940	5.140	54.860	50.000	9.7
beta-BHC	3.906	3.807	4.007	54.150	50.000	8.3
Decachlorobiphenyl	7.909	7.810	8.010	52.420	50.000	4.8
delta-BHC	4.135	4.036	4.236	55.670	50.000	11.3
Dieldrin	5.360	5.261	5.461	55.270	50.000	10.5
Endosulfan I	5.097	4.996	5.196	54.910	50.000	9.8
Endosulfan II	5.931	5.831	6.031	55.340	50.000	10.7
Endosulfan sulfate	6.333	6.233	6.433	55.600	50.000	11.2
Endrin	5.636	5.536	5.736	55.090	50.000	10.2
Endrin aldehyde	6.110	6.010	6.210	54.570	50.000	9.1
Endrin ketone	6.838	6.739	6.939	55.230	50.000	10.5
gamma-BHC (Lindane)	3.606	3.507	3.707	53.550	50.000	7.1
gamma-Chlordane	4.977	4.877	5.077	55.100	50.000	10.2
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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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093905.D **Date Analyzed:** 01/30/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 18:39

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.950	9.160	21.180	20.000	5.9
Tetrachloro-m-xylene	3.539	3.490	3.590	21.130	20.000	5.7
alpha-BHC	3.995	3.940	4.050	10.970	10.000	9.7
beta-BHC	4.526	4.480	4.580	11.370	10.000	13.7
gamma-BHC (Lindane)	4.327	4.280	4.380	10.770	10.000	7.7
Endrin	6.572	6.500	6.640	42.890	50.000	-14.2
4,4'-DDT	7.023	6.950	7.090	89.090	100.000	-10.9
Methoxychlor	7.500	7.430	7.570	212.590	250.000	-15.0

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093905.D **Date Analyzed:** 01/30/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 18:39

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	18.610	20.000	-7.0
Tetrachloro-m-xylene	2.774	2.720	2.820	20.420	20.000	2.1
alpha-BHC	3.276	3.230	3.330	9.640	10.000	-3.6
beta-BHC	3.907	3.860	3.960	10.950	10.000	9.5
gamma-BHC (Lindane)	3.606	3.560	3.660	9.350	10.000	-6.5
Endrin	5.636	5.570	5.710	43.950	50.000	-12.1
4,4'-DDT	6.034	5.960	6.100	96.420	100.000	-3.6
Methoxychlor	6.610	6.540	6.680	211.840	250.000	-15.3

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216

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	01/30/2025	17:59	PL093904.D	9.05	3.54
PEM	PEM	01/30/2025	18:39	PL093905.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	19:06	PL093906.D	9.05	3.54
PB166359BL	PB166359BL	01/30/2025	19:32	PL093907.D	9.05	3.54
PB166359BS	PB166359BS	01/30/2025	19:45	PL093908.D	9.05	3.54
JPP-18.1-012825	Q1216-03	01/30/2025	20:12	PL093910.D	9.05	3.54
JPP-21.1-012825	Q1216-07	01/30/2025	20:25	PL093911.D	9.05	3.54
JPP-21.2-012825	Q1216-11	01/30/2025	20:38	PL093912.D	9.05	3.54
JPP-26.2-012825	Q1216-19	01/30/2025	20:51	PL093913.D	9.05	3.54
I.BLK	I.BLK	01/30/2025	21:44	PL093917.D	9.05	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	22:23	PL093919.D	9.05	3.54
PEM	PEM	01/31/2025	19:39	PL093958.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
JPP-29.1-012825MS	Q1215-03MS	02/01/2025	01:24	PL093973.D	9.05	3.54
JPP-29.1-012825MSD	Q1215-03MSD	02/01/2025	01:37	PL093974.D	9.05	3.54
I.BLK	I.BLK	02/01/2025	02:43	PL093977.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/01/2025	02:56	PL093978.D	9.06	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
JPP-26.1-012825	Q1216-15	02/03/2025	12:40	PL093983.D	9.05	3.55
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

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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	01/30/2025	17:59	PL093904.D	7.91	2.77
PEM	PEM	01/30/2025	18:39	PL093905.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	19:06	PL093906.D	7.91	2.77
PB166359BL	PB166359BL	01/30/2025	19:32	PL093907.D	7.91	2.77
PB166359BS	PB166359BS	01/30/2025	19:45	PL093908.D	7.91	2.77
JPP-18.1-012825	Q1216-03	01/30/2025	20:12	PL093910.D	7.91	2.78
JPP-21.1-012825	Q1216-07	01/30/2025	20:25	PL093911.D	7.91	2.77
JPP-21.2-012825	Q1216-11	01/30/2025	20:38	PL093912.D	7.91	2.77
JPP-26.2-012825	Q1216-19	01/30/2025	20:51	PL093913.D	7.91	2.77
I.BLK	I.BLK	01/30/2025	21:44	PL093917.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	22:23	PL093919.D	7.91	2.77
PEM	PEM	01/31/2025	19:39	PL093958.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
JPP-29.1-012825MS	Q1215-03MS	02/01/2025	01:24	PL093973.D	7.91	2.77
JPP-29.1-012825MSD	Q1215-03MSD	02/01/2025	01:37	PL093974.D	7.91	2.77
I.BLK	I.BLK	02/01/2025	02:43	PL093977.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/01/2025	02:56	PL093978.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
JPP-26.1-012825	Q1216-15	02/03/2025	12:40	PL093983.D	7.91	2.77
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

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-18.1-012825

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1216-03 **Date(s) Analyzed:** 01/30/2025 01/30/2025

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
Endrin	1	6.57	6.52	6.62	0.36	51.7
	2	5.64	5.59	5.69	0.21	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
JPP-21.2-012825

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1216-11 **Date(s) Analyzed:** 01/30/2025 01/30/2025

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	0.44	57.7
	2	5.93	5.88	5.98	0.79	
4,4'-DDT	1	7.02	6.97	7.07	0.84	129.3
	2	6.03	5.98	6.08	3.90	
Heptachlor	1	4.91	4.86	4.96	0.27	21.1
	2	3.94	3.89	3.99	0.22	
Aldrin	1	5.25	5.20	5.30	0.43	0
	2	4.22	4.17	4.27	0.43	
alpha-Chlordane	1	6.02	5.97	6.07	1.80	78
	2	5.04	4.99	5.09	0.79	
4,4'-DDE	1	6.19	6.14	6.24	1.70	19.4
	2	5.23	5.18	5.28	1.40	
Dieldrin	1	6.34	6.29	6.39	0.81	22.3
	2	5.36	5.31	5.41	0.64	
Endrin	1	6.57	6.52	6.62	0.41	64.1
	2	5.64	5.59	5.69	0.81	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-26.2-012825

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1216-19 **Date(s) Analyzed:** 01/30/2025 01/30/2025

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	0.52	110.4
	2	6.03	5.98	6.08	1.80	
Heptachlor	1	4.91	4.86	4.96	0.60	42.5
	2	3.94	3.89	3.99	0.39	
alpha-Chlordane	1	6.02	5.97	6.07	2.60	91
	2	5.04	4.99	5.09	0.97	
4,4'-DDE	1	6.19	6.14	6.24	0.83	36.4
	2	5.23	5.18	5.28	1.20	
Dieldrin	1	6.34	6.29	6.39	0.26	32.5
	2	5.36	5.31	5.41	0.36	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
JPP-29.1-012825MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1215-03MS **Date(s) Analyzed:** 02/01/2025 02/01/2025

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	16.5	0.6
	2	5.93	5.88	5.98	16.6	
4,4'-DDD	1	6.71	6.66	6.76	19.0	20.9
	2	5.78	5.73	5.83	15.4	
4,4'-DDT	1	7.02	6.97	7.07	17.1	12.4
	2	6.03	5.98	6.08	15.1	
Endrin aldehyde	1	6.93	6.88	6.98	15.1	3.4
	2	6.11	6.06	6.16	14.6	
Endosulfan sulfate	1	7.16	7.11	7.21	15.7	0
	2	6.33	6.28	6.38	15.7	
Methoxychlor	1	7.50	7.45	7.55	16.3	13.8
	2	6.61	6.56	6.66	14.2	
Endrin ketone	1	7.64	7.59	7.69	15.7	17.3
	2	6.84	6.79	6.89	13.2	
alpha-BHC	1	3.99	3.94	4.04	17.8	5.8
	2	3.28	3.23	3.33	16.8	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	18.7	7.2
	2	3.61	3.56	3.66	17.4	
Heptachlor	1	4.91	4.86	4.96	17.8	1.7
	2	3.95	3.90	4.00	17.5	
Aldrin	1	5.26	5.21	5.31	16.9	0.6
	2	4.22	4.17	4.27	17.0	
beta-BHC	1	4.53	4.48	4.58	14.3	17.3
	2	3.91	3.86	3.96	17.0	
delta-BHC	1	4.77	4.72	4.82	17.6	0.6
	2	4.14	4.09	4.19	17.5	
Heptachlor epoxide	1	5.68	5.63	5.73	15.5	9.8
	2	4.73	4.68	4.78	17.1	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1215-03MS **Date(s) Analyzed:** 02/01/2025 02/01/2025

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	16.7	42
	2	5.10	5.05	5.15	10.9	
gamma-Chlordane	1	5.94	5.89	5.99	20.1	11
	2	4.98	4.93	5.03	18.0	
alpha-Chlordane	1	6.02	5.97	6.07	18.2	3.9
	2	5.04	4.99	5.09	17.5	
4,4'-DDE	1	6.19	6.14	6.24	11.0	46.2
	2	5.23	5.18	5.28	17.6	
Dieldrin	1	6.35	6.30	6.40	15.8	5.5
	2	5.36	5.31	5.41	16.7	
Endrin	1	6.58	6.53	6.63	15.0	16.5
	2	5.64	5.59	5.69	17.7	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1215-03MSD **Date(s) Analyzed:** 02/01/2025 02/01/2025

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	16.1	0.6
	2	5.93	5.88	5.98	16.2	
4,4'-DDD	1	6.71	6.66	6.76	18.7	22.6
	2	5.79	5.74	5.84	14.9	
4,4'-DDT	1	7.02	6.97	7.07	16.3	11.7
	2	6.03	5.98	6.08	14.5	
Endrin aldehyde	1	6.93	6.88	6.98	14.7	0.7
	2	6.11	6.06	6.16	14.6	
Endosulfan sulfate	1	7.16	7.11	7.21	14.9	3.3
	2	6.34	6.29	6.39	15.4	
Endrin ketone	1	7.64	7.59	7.69	15.0	15.1
	2	6.84	6.79	6.89	12.9	
alpha-BHC	1	3.99	3.94	4.04	17.6	6.5
	2	3.28	3.23	3.33	16.5	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	18.5	7.9
	2	3.61	3.56	3.66	17.1	
Heptachlor	1	4.92	4.87	4.97	17.5	2.9
	2	3.95	3.90	4.00	17.0	
Aldrin	1	5.26	5.21	5.31	16.6	0.6
	2	4.22	4.17	4.27	16.7	
beta-BHC	1	4.53	4.48	4.58	14.1	27.5
	2	3.91	3.86	3.96	18.6	
delta-BHC	1	4.77	4.72	4.82	17.5	2.3
	2	4.14	4.09	4.19	17.1	
Heptachlor epoxide	1	5.68	5.63	5.73	15.3	9.3
	2	4.73	4.68	4.78	16.8	
Endosulfan I	1	6.07	6.02	6.12	15.9	52.4
	2	5.10	5.05	5.15	9.30	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
JPP-29.1-012825MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: Q1215-03MSD **Date(s) Analyzed:** 02/01/2025 02/01/2025

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
gamma-Chlordane	1	5.94	5.89	5.99	19.6	9.1
	2	4.98	4.93	5.03	17.9	
alpha-Chlordane	1	6.02	5.97	6.07	17.6	2.3
	2	5.04	4.99	5.09	17.2	
4,4'-DDE	1	6.19	6.14	6.24	10.8	41.2
	2	5.23	5.18	5.28	16.4	
Dieldrin	1	6.35	6.30	6.40	15.4	5.7
	2	5.36	5.31	5.41	16.3	
Endrin	1	6.57	6.52	6.62	15.3	13.4
	2	5.64	5.59	5.69	17.5	
Methoxychlor	1	7.50	7.45	7.55	15.8	21
	2	6.61	6.56	6.66	12.8	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166359BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: PB166359BS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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	16.3	7.7
	2	5.10	5.05	5.15	17.6	
alpha-Chlordane	1	6.02	5.97	6.07	16.5	6.5
	2	5.04	4.99	5.09	17.6	
4,4'-DDE	1	6.19	6.14	6.24	17.6	3.4
	2	5.23	5.18	5.28	18.2	
Dieldrin	1	6.34	6.29	6.39	16.5	4.7
	2	5.36	5.31	5.41	17.3	
Endrin	1	6.57	6.52	6.62	14.9	7.7
	2	5.64	5.59	5.69	16.1	
Methoxychlor	1	7.50	7.45	7.55	16.3	3.1
	2	6.61	6.56	6.66	15.8	
Endrin ketone	1	7.64	7.59	7.69	17.1	4
	2	6.84	6.79	6.89	17.8	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	16.0	1.9
	2	3.61	3.56	3.66	16.3	
Heptachlor	1	4.92	4.87	4.97	16.5	0.6
	2	3.95	3.90	4.00	16.6	
Heptachlor epoxide	1	5.68	5.63	5.73	15.9	7.3
	2	4.73	4.68	4.78	17.1	
gamma-Chlordane	1	5.94	5.89	5.99	16.5	7.6
	2	4.98	4.93	5.03	17.8	
Endosulfan II	1	6.79	6.74	6.84	16.6	5.8
	2	5.93	5.88	5.98	17.6	
4,4'-DDD	1	6.71	6.66	6.76	18.9	3.6
	2	5.78	5.73	5.83	19.6	
4,4'-DDT	1	7.02	6.97	7.07	16.6	1.2
	2	6.03	5.98	6.08	16.4	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166359BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Lab Sample ID: PB166359BS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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
Endrin aldehyde	1	6.92	6.87	6.97	16.6	1.8
	2	6.11	6.06	6.16	16.9	
Endosulfan sulfate	1	7.16	7.11	7.21	16.6	5.3
	2	6.33	6.28	6.38	17.5	
alpha-BHC	1	3.99	3.94	4.04	16.2	2.4
	2	3.28	3.23	3.33	16.6	
Aldrin	1	5.26	5.21	5.31	16.1	2.5
	2	4.23	4.18	4.28	16.5	
beta-BHC	1	4.53	4.48	4.58	16.6	1.8
	2	3.91	3.86	3.96	16.9	
delta-BHC	1	4.77	4.72	4.82	16.4	0
	2	4.14	4.09	4.19	16.4	

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LAB CHRONICLE

OrderID:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-04	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-08	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-12	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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LAB CHRONICLE

Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	02/03/25	
Q1216-16	**JPP-26.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-20	**JPP-26.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Pesticide	8081B		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1216 **Order ID:** Q1216

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.:	Q1216
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

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-04	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
PL093994.D	1	01/31/25 11:15	02/03/25 15:49	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	23.3		77 - 126	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-08	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
PL093995.D	1	01/31/25 11:15	02/03/25 16:02	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	26.3		43 - 140	131%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.5		77 - 126	113%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-12	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
PL093996.D	1	01/31/25 11:15	02/03/25 16:15	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	25.2		43 - 140	126%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.2		77 - 126	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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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-16	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
PL093997.D	1	01/31/25 11:15	02/03/25 16:29	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	25.4		43 - 140	127%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.4		77 - 126	117%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-20	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
PL093998.D	1	01/31/25 11:15	02/03/25 16:42	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	28.1		43 - 140	140%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.4		77 - 126	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
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() = Laboratory InHouse Limit

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q1216

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
Q1216-04	JPP-18.1-012825	Decachlorobiphenyl	1	20	25.1	125		43	140
		Tetrachloro-m-xylene	1	20	23.3	116		77	126
		Decachlorobiphenyl	2	20	23.2	116		43	140
		Tetrachloro-m-xylene	2	20	22.8	114		77	126
Q1216-08	JPP-21.1-012825	Decachlorobiphenyl	1	20	26.3	131		43	140
		Tetrachloro-m-xylene	1	20	22.5	113		77	126
		Decachlorobiphenyl	2	20	20.5	102		43	140
		Tetrachloro-m-xylene	2	20	21.9	110		77	126
Q1216-12	JPP-21.2-012825	Decachlorobiphenyl	1	20	25.2	126		43	140
		Tetrachloro-m-xylene	1	20	23.2	116		77	126
		Decachlorobiphenyl	2	20	24.7	123		43	140
		Tetrachloro-m-xylene	2	20	22.6	113		77	126
Q1216-16	JPP-26.1-012825	Decachlorobiphenyl	1	20	25.4	127		43	140

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Surrogate Summary

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1216-16	JPP-26.1-012825	Tetrachloro-m-xylene	1	20	23.4	117		77	126
		Decachlorobiphenyl	2	20	25.1	125		43	140
		Tetrachloro-m-xylene	2	20	22.6	113		77	126
Q1216-20	JPP-26.2-012825	Decachlorobiphenyl	1	20	28.1	140		43	140
		Tetrachloro-m-xylene	1	20	21.4	107		77	126
		Decachlorobiphenyl	2	20	22.4	112		43	140
		Tetrachloro-m-xylene	2	20	20.6	103		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

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

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	Limits 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.: Q1216

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.: Q1216

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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Fax : 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166427BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	Q1216-04	PL093994.D	02/03/2025	02/03/2025
JPP-21.1-012825	Q1216-08	PL093995.D	02/03/2025	02/03/2025
JPP-21.2-012825	Q1216-12	PL093996.D	02/03/2025	02/03/2025
JPP-26.1-012825	Q1216-16	PL093997.D	02/03/2025	02/03/2025
JPP-26.2-012825	Q1216-20	PL093998.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.:	Q1216
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

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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.:	Q1216
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
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-PL093980.D	SDG No.:	Q1216
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
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-PL093999.D	SDG No.:	Q1216
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:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166427BS	SDG No.:	Q1216
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:

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.:	Q1216
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:

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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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1216
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

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216

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
JPP-18.1-012825	Q1216-04	02/03/2025	15:49	PL093994.D	9.06	3.54
JPP-21.1-012825	Q1216-08	02/03/2025	16:02	PL093995.D	9.06	3.54
JPP-21.2-012825	Q1216-12	02/03/2025	16:15	PL093996.D	9.05	3.54
JPP-26.1-012825	Q1216-16	02/03/2025	16:29	PL093997.D	9.05	3.54
JPP-26.2-012825	Q1216-20	02/03/2025	16:42	PL093998.D	9.05	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

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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
JPP-18.1-012825	Q1216-04	02/03/2025	15:49	PL093994.D	7.91	2.77
JPP-21.1-012825	Q1216-08	02/03/2025	16:02	PL093995.D	7.91	2.78
JPP-21.2-012825	Q1216-12	02/03/2025	16:15	PL093996.D	7.91	2.77
JPP-26.1-012825	Q1216-16	02/03/2025	16:29	PL093997.D	7.91	2.77
JPP-26.2-012825	Q1216-20	02/03/2025	16:42	PL093998.D	7.91	2.77
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

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**

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LAB CHRONICLE

PCB	8082A	01/30/25	01/30/25

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Hit Summary Sheet
SW-846

SDG No.: Q1216 **Order ID:** Q1216

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-18.1-012825								
Q1216-03	JPP-18.1-012825	SOIL	Aroclor-1260	8.10	J	3.50	20.4	ug/kg
			Total Concentration:	**8.100**				
Client ID : JPP-21.1-012825								
Q1216-07	JPP-21.1-012825	SOIL	Aroclor-1260	27.8		3.20	18.8	ug/kg
			Total Concentration:	**27.800**				
Client ID : JPP-21.2-012825								
Q1216-11	JPP-21.2-012825	SOIL	Aroclor-1260	52.6		3.40	20.1	ug/kg
			Total Concentration:	**52.600**				
Client ID : JPP-26.2-012825								
Q1216-19	JPP-26.2-012825	SOIL	Aroclor-1260	28.1		3.40	19.8	ug/kg
			Total Concentration:	**28.100**				

SAMPLE DATA

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	83.3 Decanted:
Sample Wt/Vol:	30.07 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
PO109282.D	1	01/30/25 08:30	01/30/25 13:43	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	20.4	U	4.10	20.4	ug/kg
11104-28-2	Aroclor-1221	20.4	U	7.70	20.4	ug/kg
11141-16-5	Aroclor-1232	20.4	U	4.10	20.4	ug/kg
53469-21-9	Aroclor-1242	20.4	U	4.10	20.4	ug/kg
12672-29-6	Aroclor-1248	20.4	U	9.40	20.4	ug/kg
11097-69-1	Aroclor-1254	20.4	U	3.30	20.4	ug/kg
37324-23-5	Aroclor-1262	20.4	U	5.50	20.4	ug/kg
11100-14-4	Aroclor-1268	20.4	U	4.10	20.4	ug/kg
11096-82-5	Aroclor-1260	8.10	J	3.50	20.4	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.9		32 - 144	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.6		32 - 175	68%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	90.4 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
PO109283.D	1	01/30/25 08:30	01/30/25 14:01	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	18.8	U	3.70	18.8	ug/kg
11104-28-2	Aroclor-1221	18.8	U	7.10	18.8	ug/kg
11141-16-5	Aroclor-1232	18.8	U	3.80	18.8	ug/kg
53469-21-9	Aroclor-1242	18.8	U	3.70	18.8	ug/kg
12672-29-6	Aroclor-1248	18.8	U	8.70	18.8	ug/kg
11097-69-1	Aroclor-1254	18.8	U	3.00	18.8	ug/kg
37324-23-5	Aroclor-1262	18.8	U	5.10	18.8	ug/kg
11100-14-4	Aroclor-1268	18.8	U	3.80	18.8	ug/kg
11096-82-5	Aroclor-1260	27.8		3.20	18.8	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.4		32 - 144	107%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.8		32 - 175	79%	SPK: 20

Comments:

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() = 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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	84.3 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
PO109284.D	1	01/30/25 08:30	01/30/25 14:20	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	20.1	U	4.00	20.1	ug/kg
11104-28-2	Aroclor-1221	20.1	U	7.60	20.1	ug/kg
11141-16-5	Aroclor-1232	20.1	U	4.00	20.1	ug/kg
53469-21-9	Aroclor-1242	20.1	U	4.00	20.1	ug/kg
12672-29-6	Aroclor-1248	20.1	U	9.30	20.1	ug/kg
11097-69-1	Aroclor-1254	20.1	U	3.20	20.1	ug/kg
37324-23-5	Aroclor-1262	20.1	U	5.40	20.1	ug/kg
11100-14-4	Aroclor-1268	20.1	U	4.10	20.1	ug/kg
11096-82-5	Aroclor-1260	52.6		3.40	20.1	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.9		32 - 144	109%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.7		32 - 175	78%	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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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	82.8 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
PO109285.D	1	01/30/25 08:30	01/30/25 14:38	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	20.5	U	4.10	20.5	ug/kg
11104-28-2	Aroclor-1221	20.5	U	7.70	20.5	ug/kg
11141-16-5	Aroclor-1232	20.5	U	4.10	20.5	ug/kg
53469-21-9	Aroclor-1242	20.5	U	4.10	20.5	ug/kg
12672-29-6	Aroclor-1248	20.5	U	9.50	20.5	ug/kg
11097-69-1	Aroclor-1254	20.5	U	3.30	20.5	ug/kg
37324-23-5	Aroclor-1262	20.5	U	5.50	20.5	ug/kg
11100-14-4	Aroclor-1268	20.5	U	4.10	20.5	ug/kg
11096-82-5	Aroclor-1260	20.5	U	3.50	20.5	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	18.0		32 - 144	90%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.0		32 - 175	65%	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
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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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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	85.8 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
PO109286.D	1	01/30/25 08:30	01/30/25 14:56	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	19.8	U	3.90	19.8	ug/kg
11104-28-2	Aroclor-1221	19.8	U	7.50	19.8	ug/kg
11141-16-5	Aroclor-1232	19.8	U	4.00	19.8	ug/kg
53469-21-9	Aroclor-1242	19.8	U	3.90	19.8	ug/kg
12672-29-6	Aroclor-1248	19.8	U	9.20	19.8	ug/kg
11097-69-1	Aroclor-1254	19.8	U	3.20	19.8	ug/kg
37324-23-5	Aroclor-1262	19.8	U	5.30	19.8	ug/kg
11100-14-4	Aroclor-1268	19.8	U	4.00	19.8	ug/kg
11096-82-5	Aroclor-1260	28.1		3.40	19.8	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	18.9		32 - 144	94%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.1		32 - 175	75%	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
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QC SUMMARY

Alliance TECHNICAL GROUP
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Surrogate Summary

SDG No.: Q1216

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-PO109277.D	PIBLK-PO109277.D	Tetrachloro-m-xylene	1	20	23.2	116		60	140
		Decachlorobiphenyl	1	20	22.4	112		60	140
		Tetrachloro-m-xylene	2	20	22.9	114		60	140
		Decachlorobiphenyl	2	20	21.6	108		60	140
PB166358BL	PB166358BL	Tetrachloro-m-xylene	1	20	24.8	124		32	144
		Decachlorobiphenyl	1	20	23.6	118		32	175
		Tetrachloro-m-xylene	2	20	23.6	118		32	144
		Decachlorobiphenyl	2	20	22.5	113		32	175
PB166358BS	PB166358BS	Tetrachloro-m-xylene	1	20	21.8	109		32	144
		Decachlorobiphenyl	1	20	22.6	113		32	175
		Tetrachloro-m-xylene	2	20	21.9	110		32	144
		Decachlorobiphenyl	2	20	21.6	108		32	175
Q1216-03	JPP-18.1-012825	Tetrachloro-m-xylene	1	20	19.2	96		32	144
		Decachlorobiphenyl	1	20	13.5	68		32	175
		Tetrachloro-m-xylene	2	20	19.9	99		32	144
		Decachlorobiphenyl	2	20	13.6	68		32	175
Q1216-07	JPP-21.1-012825	Tetrachloro-m-xylene	1	20	20.9	105		32	144
		Decachlorobiphenyl	1	20	15.3	76		32	175
		Tetrachloro-m-xylene	2	20	21.4	107		32	144
		Decachlorobiphenyl	2	20	15.8	79		32	175
Q1216-11	JPP-21.2-012825	Tetrachloro-m-xylene	1	20	21.9	109		32	144
		Decachlorobiphenyl	1	20	14.6	73		32	175
		Tetrachloro-m-xylene	2	20	21.9	109		32	144
		Decachlorobiphenyl	2	20	15.7	78		32	175
Q1216-15	JPP-26.1-012825	Tetrachloro-m-xylene	1	20	18.0	90		32	144
		Decachlorobiphenyl	1	20	11.5	58		32	175
		Tetrachloro-m-xylene	2	20	18.0	90		32	144
		Decachlorobiphenyl	2	20	13.0	65		32	175
Q1216-19	JPP-26.2-012825	Tetrachloro-m-xylene	1	20	18.4	92		32	144
		Decachlorobiphenyl	1	20	14.1	70		32	175
		Tetrachloro-m-xylene	2	20	18.9	94		32	144
		Decachlorobiphenyl	2	20	15.1	75		32	175
I.BLK-PO109292.D	PIBLK-PO109292.D	Tetrachloro-m-xylene	1	20	23.1	115		60	140
		Decachlorobiphenyl	1	20	18.9	94		60	140
		Tetrachloro-m-xylene	2	20	22.7	113		60	140
		Decachlorobiphenyl	2	20	20.9	104		60	140
Q1220-01MS	TR-06-01292025MS	Tetrachloro-m-xylene	1	20	15.5	77		32	144

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Fax : 908 789 8922

Surrogate Summary

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1220-01MS	TR-06-01292025MS	Decachlorobiphenyl	1	20	15.5	78		32	175
		Tetrachloro-m-xylene	2	20	16.3	81		32	144
		Decachlorobiphenyl	2	20	17.0	85		32	175
Q1220-01MSD	TR-06-01292025MSD	Tetrachloro-m-xylene	1	20	15.3	76		32	144
		Decachlorobiphenyl	1	20	15.1	75		32	175
		Tetrachloro-m-xylene	2	20	16.3	82		32	144
		Decachlorobiphenyl	2	20	16.3	82		32	175
I.BLK-PO109306.D	PIBLK-PO109306.D	Tetrachloro-m-xylene	1	20	22.9	114		60	140
		Decachlorobiphenyl	1	20	18.3	92		60	140
		Tetrachloro-m-xylene	2	20	23.0	115		60	140
		Decachlorobiphenyl	2	20	19.9	100		60	140

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109295.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:	**TR-06-01292025MS**											
Q1220-01MS	AR1016	178.4	0	135	ug/kg	76				55	146	
	AR1260	178.4	0	124	ug/kg	70				45	144	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109296.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:	**TR-06-01292025MSD**											
Q1220-01MSD	AR1016	178.5	0	131	ug/kg	73		4		55	146	20
	AR1260	178.5	0	120	ug/kg	67		4		45	144	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1216

Client: RU2 Engineering, LLC

Analytical Method: 8082A **Datafile :** PO109279.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166358BS	AR1016	166.6	154	ug/kg	92				71	120	
	AR1260	166.6	147	ug/kg	88				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166358BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab Sample ID: PB166358BL Lab File ID: PO109278.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/30/2025

Date Analyzed (1): 01/30/2025 Date Analyzed (2): 01/30/2025

Time Analyzed (1): 12:30 Time Analyzed (2): 12:30

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
PB166358BS	PB166358BS	PO109279.D	01/30/2025	01/30/2025
JPP-18.1-012825	Q1216-03	PO109282.D	01/30/2025	01/30/2025
JPP-21.1-012825	Q1216-07	PO109283.D	01/30/2025	01/30/2025
JPP-21.2-012825	Q1216-11	PO109284.D	01/30/2025	01/30/2025
JPP-26.1-012825	Q1216-15	PO109285.D	01/30/2025	01/30/2025
JPP-26.2-012825	Q1216-19	PO109286.D	01/30/2025	01/30/2025
TR-06-01292025MS	Q1220-01MS	PO109295.D	01/30/2025	01/30/2025
TR-06-01292025MSD	Q1220-01MSD	PO109296.D	01/30/2025	01/30/2025

COMMENTS:

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 09:19 **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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 09:19 **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)	7.07	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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109273.D **Time Analyzed:** 09:19

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.695	4.895	516.420	500.000	3.3
Aroclor-1016-2	4.813	4.714	4.914	515.040	500.000	3.0
Aroclor-1016-3	4.868	4.770	4.970	509.030	500.000	1.8
Aroclor-1016-4	4.989	4.891	5.091	513.030	500.000	2.6
Aroclor-1016-5	5.247	5.149	5.349	506.600	500.000	1.3
Aroclor-1260-1	6.290	6.190	6.390	494.930	500.000	-1.0
Aroclor-1260-2	6.478	6.379	6.579	490.200	500.000	-2.0
Aroclor-1260-3	6.847	6.747	6.947	494.570	500.000	-1.1
Aroclor-1260-4	7.108	7.008	7.208	496.140	500.000	-0.8
Aroclor-1260-5	7.349	7.249	7.449	487.690	500.000	-2.5
Decachlorobiphenyl	8.758	8.658	8.858	46.710	50.000	-6.6
Tetrachloro-m-xylene	3.698	3.600	3.800	51.970	50.000	3.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109273.D **Time Analyzed:** 09:19

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.777	4.703	4.903	492.070	500.000	-1.6
Aroclor-1016-2	4.797	4.722	4.922	511.060	500.000	2.2
Aroclor-1016-3	4.973	4.898	5.098	508.430	500.000	1.7
Aroclor-1016-4	5.014	4.940	5.140	486.710	500.000	-2.7
Aroclor-1016-5	5.227	5.153	5.353	507.060	500.000	1.4
Aroclor-1260-1	6.261	6.186	6.386	498.420	500.000	-0.3
Aroclor-1260-2	6.449	6.373	6.573	495.270	500.000	-0.9
Aroclor-1260-3	6.602	6.527	6.727	492.250	500.000	-1.6
Aroclor-1260-4	7.074	6.999	7.199	492.160	500.000	-1.6
Aroclor-1260-5	7.315	7.239	7.439	500.950	500.000	0.2
Decachlorobiphenyl	8.708	8.633	8.833	45.830	50.000	-8.3
Tetrachloro-m-xylene	3.693	3.618	3.818	53.320	50.000	6.6

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 17:19 **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	0.01
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 17:19 **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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109288.D **Time Analyzed:** 17:19

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.792	4.695	4.895	497.330	500.000	-0.5
Aroclor-1016-2	4.812	4.714	4.914	492.970	500.000	-1.4
Aroclor-1016-3	4.868	4.770	4.970	487.850	500.000	-2.4
Aroclor-1016-4	4.989	4.891	5.091	489.660	500.000	-2.1
Aroclor-1016-5	5.246	5.149	5.349	491.810	500.000	-1.6
Aroclor-1260-1	6.289	6.190	6.390	442.630	500.000	-11.5
Aroclor-1260-2	6.477	6.379	6.579	440.620	500.000	-11.9
Aroclor-1260-3	6.845	6.747	6.947	439.260	500.000	-12.1
Aroclor-1260-4	7.106	7.008	7.208	420.790	500.000	-15.8
Aroclor-1260-5	7.347	7.249	7.449	404.900	500.000	-19.0
Decachlorobiphenyl	8.756	8.658	8.858	38.970	50.000	-22.1
Tetrachloro-m-xylene	3.698	3.600	3.800	49.370	50.000	-1.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109288.D **Time Analyzed:** 17:19

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.703	4.903	521.430	500.000	4.3
Aroclor-1016-2	4.798	4.722	4.922	526.420	500.000	5.3
Aroclor-1016-3	4.974	4.898	5.098	511.150	500.000	2.2
Aroclor-1016-4	5.015	4.940	5.140	493.930	500.000	-1.2
Aroclor-1016-5	5.229	5.153	5.353	520.120	500.000	4.0
Aroclor-1260-1	6.262	6.186	6.386	473.510	500.000	-5.3
Aroclor-1260-2	6.449	6.373	6.573	461.500	500.000	-7.7
Aroclor-1260-3	6.604	6.527	6.727	456.810	500.000	-8.6
Aroclor-1260-4	7.075	6.999	7.199	439.710	500.000	-12.1
Aroclor-1260-5	7.315	7.239	7.439	442.370	500.000	-11.5
Decachlorobiphenyl	8.708	8.633	8.833	42.440	50.000	-15.1
Tetrachloro-m-xylene	3.695	3.618	3.818	53.020	50.000	6.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 22:32 **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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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 22:32 **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	0.02
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)	6.60	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	0.02
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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109302.D **Time Analyzed:** 22:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.695	4.895	490.700	500.000	-1.9
Aroclor-1016-2	4.812	4.714	4.914	492.170	500.000	-1.6
Aroclor-1016-3	4.869	4.770	4.970	483.870	500.000	-3.2
Aroclor-1016-4	4.989	4.891	5.091	488.000	500.000	-2.4
Aroclor-1016-5	5.247	5.149	5.349	496.010	500.000	-0.8
Aroclor-1260-1	6.289	6.190	6.390	430.090	500.000	-14.0
Aroclor-1260-2	6.477	6.379	6.579	440.410	500.000	-11.9
Aroclor-1260-3	6.846	6.747	6.947	433.480	500.000	-13.3
Aroclor-1260-4	7.107	7.008	7.208	394.520	500.000	-21.1
Aroclor-1260-5	7.348	7.249	7.449	381.150	500.000	-23.8
Decachlorobiphenyl	8.756	8.658	8.858	36.570	50.000	-26.9
Tetrachloro-m-xylene	3.698	3.600	3.800	48.880	50.000	-2.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109302.D **Time Analyzed:** 22:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.779	4.703	4.903	523.440	500.000	4.7
Aroclor-1016-2	4.798	4.722	4.922	529.350	500.000	5.9
Aroclor-1016-3	4.974	4.898	5.098	506.610	500.000	1.3
Aroclor-1016-4	5.016	4.940	5.140	485.490	500.000	-2.9
Aroclor-1016-5	5.229	5.153	5.353	525.720	500.000	5.1
Aroclor-1260-1	6.263	6.186	6.386	466.410	500.000	-6.7
Aroclor-1260-2	6.450	6.373	6.573	457.160	500.000	-8.6
Aroclor-1260-3	6.604	6.527	6.727	451.860	500.000	-9.6
Aroclor-1260-4	7.075	6.999	7.199	440.120	500.000	-12.0
Aroclor-1260-5	7.315	7.239	7.439	436.020	500.000	-12.8
Decachlorobiphenyl	8.708	8.633	8.833	40.200	50.000	-19.6
Tetrachloro-m-xylene	3.696	3.618	3.818	52.770	50.000	5.5

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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	01/30/2025	09:19	PO109273.D	8.76	3.70
I.BLK	I.BLK	01/30/2025	10:32	PO109277.D	8.76	3.70
PB166358BL	PB166358BL	01/30/2025	12:30	PO109278.D	8.76	3.70
PB166358BS	PB166358BS	01/30/2025	12:48	PO109279.D	8.76	3.70
JPP-18.1-012825	Q1216-03	01/30/2025	13:43	PO109282.D	8.76	3.70
JPP-21.1-012825	Q1216-07	01/30/2025	14:01	PO109283.D	8.76	3.70
JPP-21.2-012825	Q1216-11	01/30/2025	14:20	PO109284.D	8.76	3.70
JPP-26.1-012825	Q1216-15	01/30/2025	14:38	PO109285.D	8.76	3.70
JPP-26.2-012825	Q1216-19	01/30/2025	14:56	PO109286.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/30/2025	17:19	PO109288.D	8.76	3.70
I.BLK	I.BLK	01/30/2025	18:32	PO109292.D	8.76	3.70
TR-06-01292025MS	Q1220-01MS	01/30/2025	19:55	PO109295.D	8.76	3.70
TR-06-01292025MSD	Q1220-01MSD	01/30/2025	20:14	PO109296.D	8.76	3.70

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Analytical Sequence

AR1660CCC500	AR1660CCC500	01/30/2025	22:32	PO109302.D	8.76	3.70
I.BLK	I.BLK	01/30/2025	23:45	PO109306.D	8.76	3.70

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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	01/30/2025	09:19	PO109273.D	8.71	3.69
I.BLK	I.BLK	01/30/2025	10:32	PO109277.D	8.71	3.70
PB166358BL	PB166358BL	01/30/2025	12:30	PO109278.D	8.71	3.69
PB166358BS	PB166358BS	01/30/2025	12:48	PO109279.D	8.71	3.69
JPP-18.1-012825	Q1216-03	01/30/2025	13:43	PO109282.D	8.71	3.69
JPP-21.1-012825	Q1216-07	01/30/2025	14:01	PO109283.D	8.71	3.70
JPP-21.2-012825	Q1216-11	01/30/2025	14:20	PO109284.D	8.71	3.70
JPP-26.1-012825	Q1216-15	01/30/2025	14:38	PO109285.D	8.71	3.69
JPP-26.2-012825	Q1216-19	01/30/2025	14:56	PO109286.D	8.71	3.69
AR1660CCC500	AR1660CCC500	01/30/2025	17:19	PO109288.D	8.71	3.70
I.BLK	I.BLK	01/30/2025	18:32	PO109292.D	8.71	3.70
TR-06-01292025MS	Q1220-01MS	01/30/2025	19:55	PO109295.D	8.71	3.70
TR-06-01292025MSD	Q1220-01MSD	01/30/2025	20:14	PO109296.D	8.71	3.70

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Analytical Sequence

AR1660CCC500	AR1660CCC500	01/30/2025	22:32	PO109302.D	8.71	3.70
I.BLK	I.BLK	01/30/2025	23:45	PO109306.D	8.71	3.70

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:	PB166358BL	SDG No.:	Q1216
Lab Sample ID:	PB166358BL	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 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
PO109278.D	1	01/30/25 08:30	01/30/25 12:30	PB166358

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	24.8		32 - 144	124%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.6		32 - 175	118%	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:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PO108981.D	SDG No.:	Q1216
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
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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PO109277.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PO109277.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
PO109277.D	1		01/30/25	PO013025

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	22.9		60 - 140	114%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		60 - 140	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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PO109292.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PO109292.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
PO109292.D	1		01/30/25	PO013025

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	22.7		60 - 140	113%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.9		60 - 140	94%	SPK: 20

Comments:

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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:	PIBLK-PO109306.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-PO109306.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
PO109306.D	1		01/30/25	PO013025

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	22.9		60 - 140	114%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.3		60 - 140	92%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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M = MS/MSD acceptance 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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166358BS	SDG No.:	Q1216
Lab Sample ID:	PB166358BS	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
PO109279.D	1	01/30/25 08:30	01/30/25 12:48	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	154		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	147		2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.9		32 - 144	110%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.6		32 - 175	113%	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:	01/29/25
Client Sample ID:	TR-06-01292025MS	SDG No.:	Q1216
Lab Sample ID:	Q1220-01MS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	93.2 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
PO109295.D	1	01/30/25 08:30	01/30/25 19:55	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	135		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	124		3.10	18.2	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.3		32 - 144	81%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.0		32 - 175	85%	SPK: 20

Comments:

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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:	TR-06-01292025MSD	SDG No.:	Q1216
Lab Sample ID:	Q1220-01MSD	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	93.2 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
PO109296.D	1	01/30/25 08:30	01/30/25 20:14	PB166358

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	131		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	8.50	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	120		3.10	18.2	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	16.3		32 - 144	82%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.3		32 - 175	82%	SPK: 20

Comments:

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LAB CHRONICLE

OrderID:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-04	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-08	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-12	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**

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LAB CHRONICLE

			TCLP Herbicide	8151A		01/31/25	02/01/25
			TCLP Pesticide	8081B		01/31/25	02/03/25
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**		**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25
			Gasoline Range Organics	8015D			01/30/25
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**		**01/29/25**
			PCB	8082A		01/30/25	01/30/25
			Pesticide-TCL	8081B		01/30/25	02/03/25
Q1216-16	**JPP-26.1-012825**	**TCLP**			**01/28/25**		**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25
			TCLP Pesticide	8081B		01/31/25	02/03/25
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**		**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25
			Gasoline Range Organics	8015D			01/30/25
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**		**01/29/25**
			PCB	8082A		01/30/25	01/30/25
			Pesticide-TCL	8081B		01/30/25	01/30/25
Q1216-20	**JPP-26.2-012825**	**TCLP**			**01/28/25**		**01/29/25**
			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.: Q1216 **Order ID:** Q1216

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.:	Q1216
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:

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LOQ = Limit of Quantitation
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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-04	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
PS029029.D	1	01/31/25 10:55	02/01/25 01:32	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	558		39 - 175	112%	SPK: 500

Comments:

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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-08	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
PS029030.D	1	01/31/25 10:55	02/01/25 01:56	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	503		39 - 175	101%	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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-12	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
PS029033.D	1	01/31/25 10:55	02/01/25 03:56	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	531		39 - 175	106%	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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-16	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
PS029034.D	1	01/31/25 10:55	02/01/25 04:20	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	522		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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-20	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
PS029035.D	1	01/31/25 10:55	02/01/25 04:44	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	533		39 - 175	107%	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.: Q1216

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
Q1216-04	JPP-18.1-012825	2,4-DCAA	1	500	558	112		39	175
		2,4-DCAA	2	500	351	70		39	175
Q1216-08	JPP-21.1-012825	2,4-DCAA	1	500	503	101		39	175
		2,4-DCAA	2	500	356	71		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
Q1216-12	JPP-21.2-012825	2,4-DCAA	1	500	531	106		39	175
		2,4-DCAA	2	500	348	70		39	175
Q1216-16	JPP-26.1-012825	2,4-DCAA	1	500	522	104		39	175
		2,4-DCAA	2	500	344	69		39	175
Q1216-20	JPP-26.2-012825	2,4-DCAA	1	500	533	107		39	175
		2,4-DCAA	2	500	352	70		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.: Q1216

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.: Q1216

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	Limits 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.: Q1216

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.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

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-18.1-012825	Q1216-04	PS029029.D	02/01/2025	02/01/2025
JPP-21.1-012825	Q1216-08	PS029030.D	02/01/2025	02/01/2025
JPP-21.2-012825	Q1216-12	PS029033.D	02/01/2025	02/01/2025
JPP-26.1-012825	Q1216-16	PS029034.D	02/01/2025	02/01/2025
JPP-26.2-012825	Q1216-20	PS029035.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.:	Q1216
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.:	Q1216
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.:	Q1216
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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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-PS029031.D	SDG No.:	Q1216
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.:	Q1216
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.:	Q1216
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.:	Q1216
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.:	Q1216
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

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216

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
JPP-18.1-012825	Q1216-04	02/01/2025	01:32	PS029029.D	7.20	0.00
JPP-21.1-012825	Q1216-08	02/01/2025	01:56	PS029030.D	7.19	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-21.2-012825	Q1216-12	02/01/2025	03:56	PS029033.D	7.20	0.00
JPP-26.1-012825	Q1216-16	02/01/2025	04:20	PS029034.D	7.19	0.00
JPP-26.2-012825	Q1216-20	02/01/2025	04:44	PS029035.D	7.20	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.:** Q1216

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
JPP-18.1-012825	Q1216-04	02/01/2025	01:32	PS029029.D	7.67	0.00
JPP-21.1-012825	Q1216-08	02/01/2025	01:56	PS029030.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-21.2-012825	Q1216-12	02/01/2025	03:56	PS029033.D	7.67	0.00
JPP-26.1-012825	Q1216-16	02/01/2025	04:20	PS029034.D	7.67	0.00
JPP-26.2-012825	Q1216-20	02/01/2025	04:44	PS029035.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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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.:** Q1216 **SAS No.:** Q1216 **SDG NO.:** Q1216

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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-01	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-04	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-05	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-08	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-09	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-12	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**

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LAB CHRONICLE

			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-13	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	02/03/25	
Q1216-16	**JPP-26.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	
Q1216-17	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/30/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			PCB	8082A		01/30/25	01/30/25	
			Pesticide-TCL	8081B		01/30/25	01/30/25	
Q1216-20	**JPP-26.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP Herbicide	8151A		01/31/25	02/01/25	
			TCLP Pesticide	8081B		01/31/25	02/03/25	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	81.2 Decanted:
Sample Wt/Vol:	30.04 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
FG015264.D	10	01/30/25 09:15	01/30/25 20:02	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	51200		2270	20500	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.27		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
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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	91.4 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
FG015265.D	10	01/30/25 09:15	01/30/25 20:31	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	74100		2020	18200	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.63		37 - 130	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-09	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	84.3 Decanted:
Sample Wt/Vol:	30.09 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
FG015266.D	10	01/30/25 09:15	01/30/25 21:00	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	69000		2190	19700	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.23		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

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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-13	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	79 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
FG015267.D	10	01/30/25 09:15	01/30/25 21:28	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	205000		2330	21000	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	3.37	*	37 - 130	168%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-17	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	85.3 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
FG015268.D	10	01/30/25 09:15	01/30/25 21:56	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	80100		2170	19500	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.46		37 - 130	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

QC SUMMARY

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SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG No.: Q1216

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FG015246.D	87				0
PIBLK-FG015258.D	89				0
PIBLK-FG015269.D	90				0
PB166361BL	79				0
PB166361BS	76				0
JPP-29.1-012825MS	88				0
JPP-29.1-012825MSD	89				0
JPP-18.1-012825	64				0
JPP-21.1-012825	81				0
JPP-21.2-012825	62				0
JPP-26.1-012825	168 *				1
JPP-26.2-012825	73				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:** Q1216 **SAS No :** Q1216 **SDG No:** Q1216

Client SampleID : JPP-29.1-012825MS **Datafile:** FG015260.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7483	92000	81300	-143%	*	68-131

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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:** Q1216 **SAS No :** Q1216 **SDG No:** Q1216

Client SampleID : JPP-29.1-012825MSD **Datafile:** FG015261.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7471	92000	82600	-126%	*	68-131

MS/MSD % Recovery RPD : 12.8

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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:** Q1216 **SAS No :** Q1216 **SDG No:** Q1216

Matrix Spike - EPA Sample No : PB166361BS **Datafile:** FG015249.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6660	0	5211	78	68-131

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4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.
PB166361BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1216 SAS No.: Q1216 SDG NO.: Q1216

Lab File ID: FG015250.D Lab Sample ID: PB166361BL

Instrument ID: FG Date Extracted: 01/30/2025

Matrix: (soil/water) Soil Date Analyzed: 01/30/25

Level: (low/med) low Time Analyzed: 12:56

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166361BS	PB166361BS	FG015249.D	01/30/25
JPP-29.1-012825MS	Q1215-01MS	FG015260.D	01/30/25
JPP-29.1-012825MSD	Q1215-01MSD	FG015261.D	01/30/25
JPP-18.1-012825	Q1216-01	FG015264.D	01/30/25
JPP-21.1-012825	Q1216-05	FG015265.D	01/30/25
JPP-21.2-012825	Q1216-09	FG015266.D	01/30/25
JPP-26.1-012825	Q1216-13	FG015267.D	01/30/25
JPP-26.2-012825	Q1216-17	FG015268.D	01/30/25

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:	PB166361BL	SDG No.:	Q1216
Lab Sample ID:	PB166361BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 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
FG015250.D	1	01/30/25 09:15	01/30/25 12:56	PB166361

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	15.9		37 - 130	79%	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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FG015246.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-FG015246.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
FG015246.D	1		01/30/25	FG013025

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	17.4		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
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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FG015258.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-FG015258.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
FG015258.D	1		01/30/25	FG013025

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	17.7		29 - 130	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
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:	PIBLK-FG015269.D	SDG No.:	Q1216
Lab Sample ID:	I.BLK-FG015269.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
FG015269.D	1		01/30/25	FG013025

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	18.0		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
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:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166361BS	SDG No.:	Q1216
Lab Sample ID:	PB166361BS	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
FG015249.D	1	01/30/25 09:15	01/30/25 12:28	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	5210		185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	15.3		37 - 130	76%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MS	SDG No.:	Q1216
Lab Sample ID:	Q1215-01MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89 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
FG015260.D	1	01/30/25 09:15	01/30/25 18:09	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	81300	E	207	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.6		37 - 130	88%	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-29.1-012825MSD	SDG No.:	Q1216
Lab Sample ID:	Q1215-01MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89 Decanted:
Sample Wt/Vol:	30.08 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
FG015261.D	1	01/30/25 09:15	01/30/25 18:37	PB166361

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	82600	E	207	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.7		37 - 130	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
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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

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

14
A
B
C
D
E
F

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

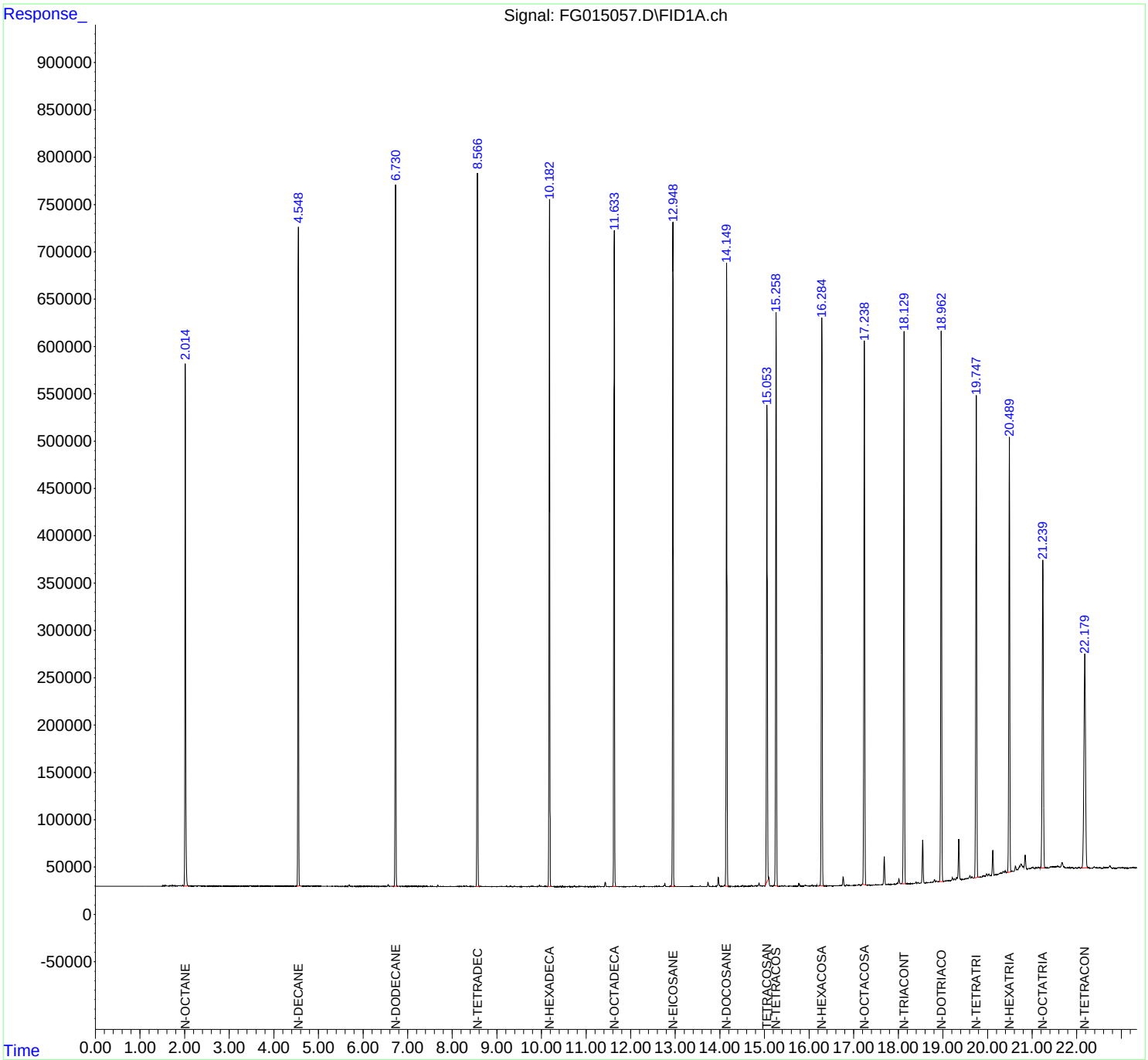
(f)=RT Delta > 1/2 Window (m)=manual int.

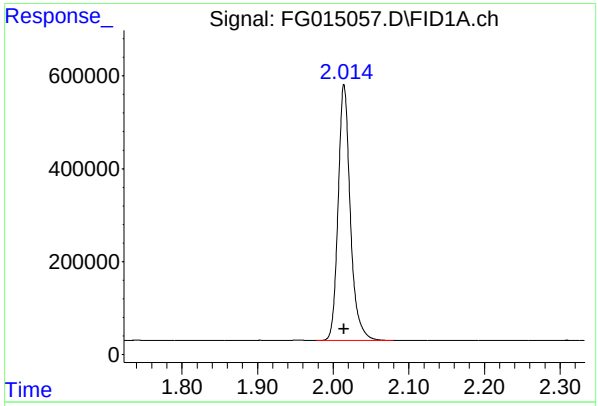
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015057.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 09:45
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 12 Sample Multiplier: 1

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

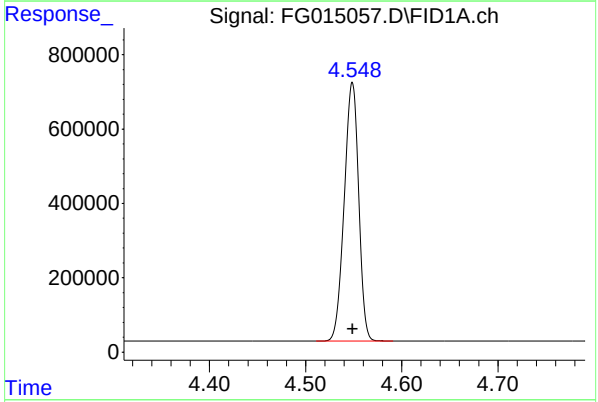




#1 N-OCTANE

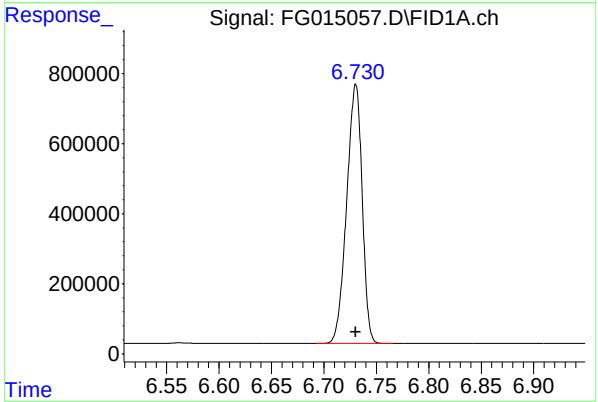
R.T.: 2.014 min
Delta R.T.: 0.000 min
Response: 6179916
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



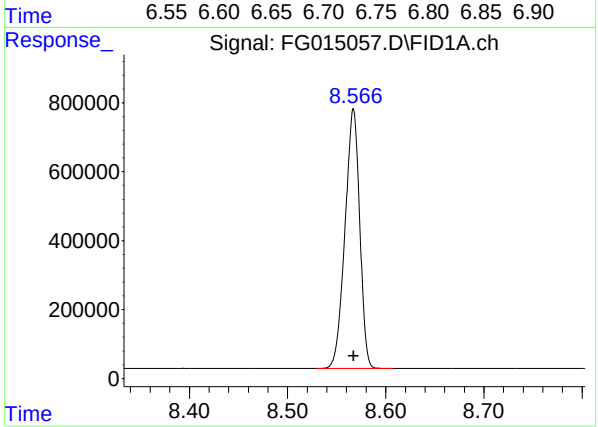
#2 N-DECANE

R.T.: 4.549 min
Delta R.T.: 0.000 min
Response: 7270974
Conc: 50.00 ug/ml



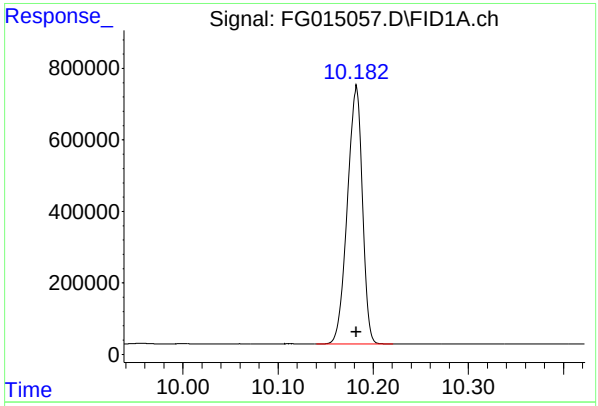
#3 N-DODECANE

R.T.: 6.730 min
Delta R.T.: 0.000 min
Response: 7616617
Conc: 50.00 ug/ml



#4 N-TETRADECANE

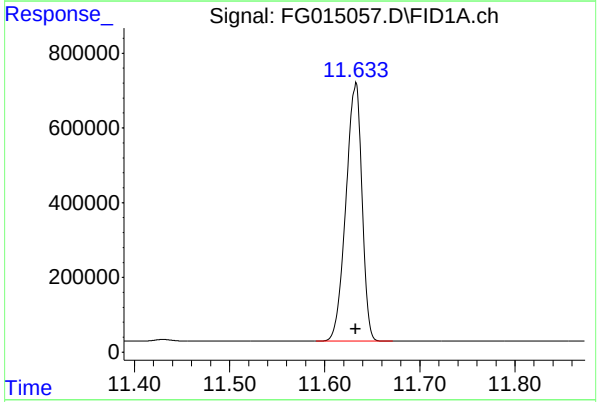
R.T.: 8.567 min
Delta R.T.: 0.000 min
Response: 7839892
Conc: 50.00 ug/ml



#5 N-HEXADECANE

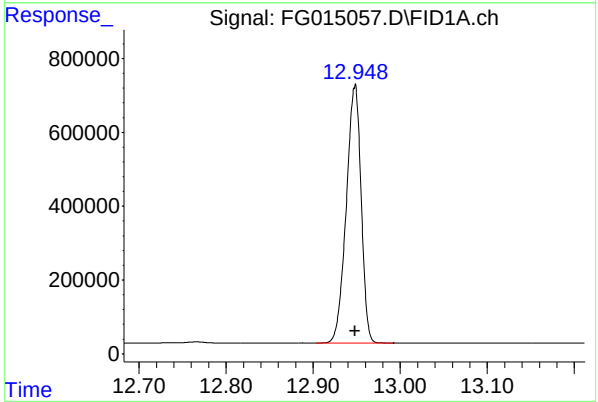
R.T.: 10.182 min
Delta R.T.: 0.000 min
Response: 7974057
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



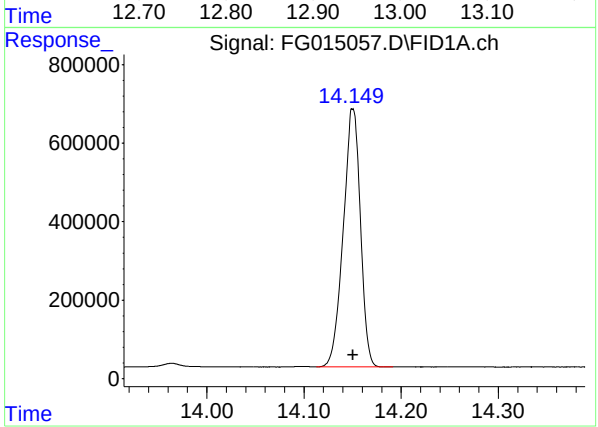
#6 N-OCTADECANE

R.T.: 11.633 min
Delta R.T.: 0.000 min
Response: 8177811
Conc: 50.00 ug/ml



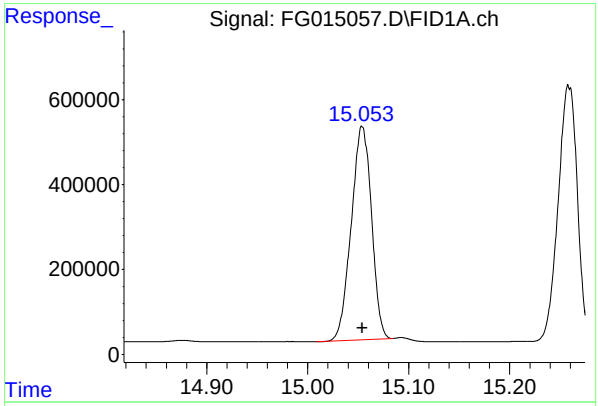
#7 N-EICOSANE

R.T.: 12.948 min
Delta R.T.: 0.000 min
Response: 8277142
Conc: 50.00 ug/ml



#8 N-DOCOSANE

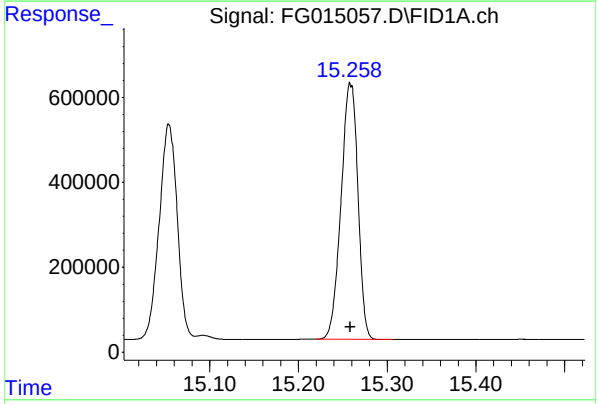
R.T.: 14.150 min
Delta R.T.: 0.000 min
Response: 8032457
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

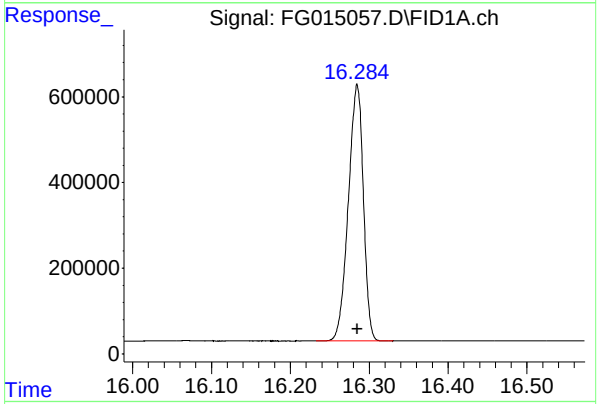
R.T.: 15.054 min
Delta R.T.: 0.000 min
Response: 7020283
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



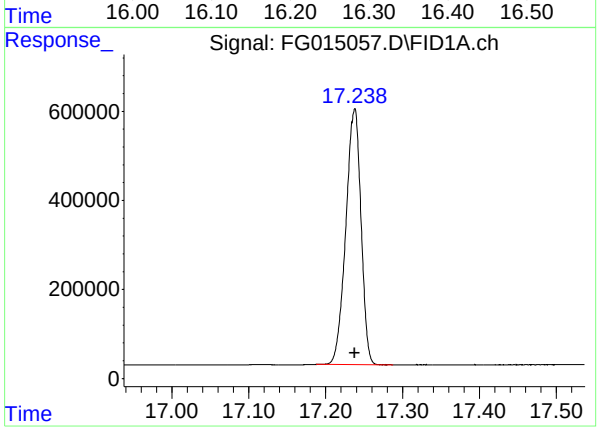
#10 N-TETRACOSANE

R.T.: 15.259 min
Delta R.T.: 0.000 min
Response: 7977467
Conc: 50.00 ug/ml



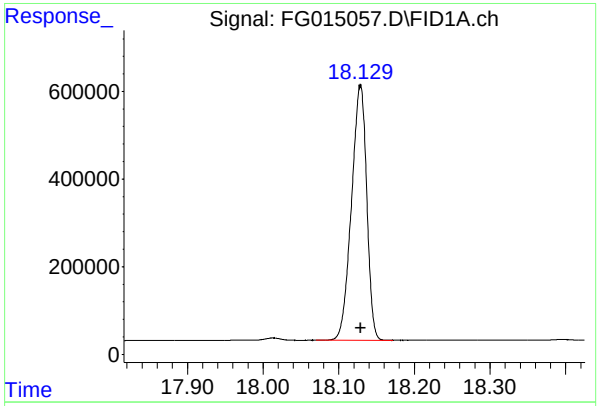
#11 N-HEXACOSANE

R.T.: 16.285 min
Delta R.T.: 0.000 min
Response: 7920800
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

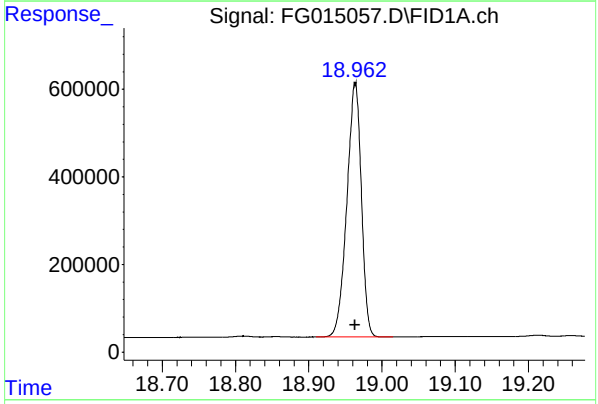
R.T.: 17.238 min
Delta R.T.: 0.000 min
Response: 7876189
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

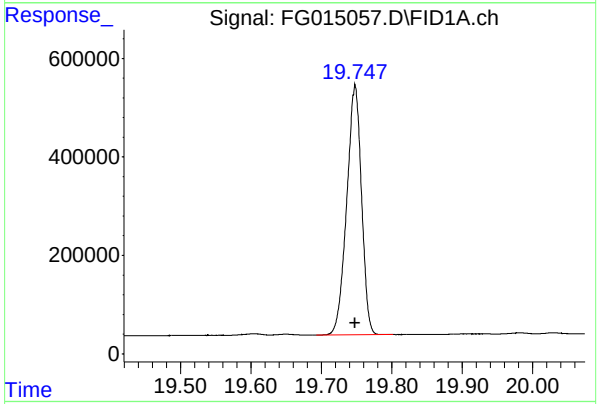
R.T.: 18.129 min
Delta R.T.: 0.000 min
Response: 8146929
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



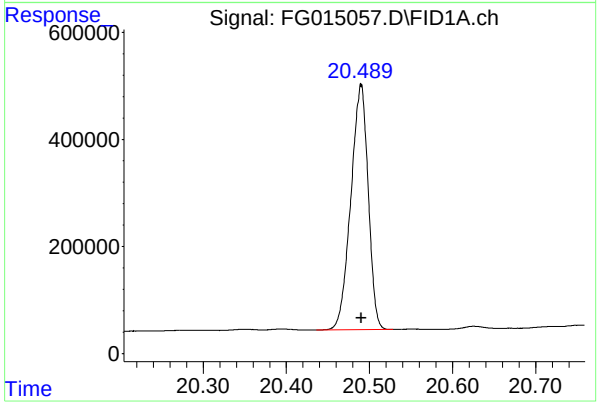
#14 N-DOTRIACONTANE

R.T.: 18.963 min
Delta R.T.: 0.000 min
Response: 7971620
Conc: 50.00 ug/ml



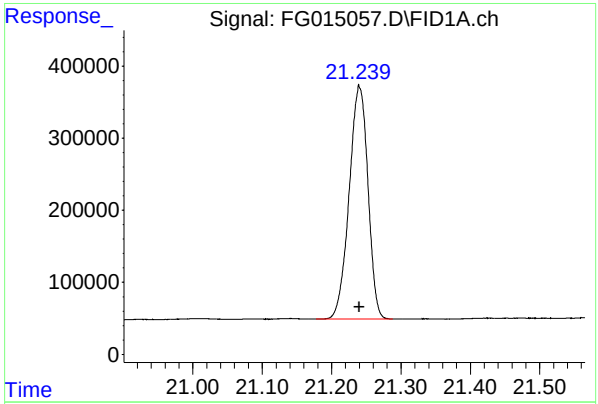
#15 N-TETRATRIACONTANE

R.T.: 19.748 min
Delta R.T.: 0.000 min
Response: 7395720
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

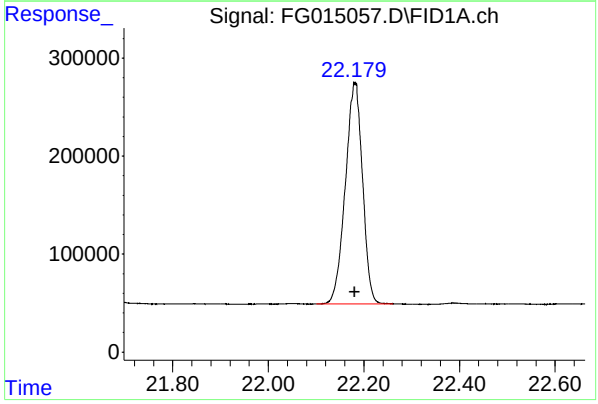
R.T.: 20.490 min
Delta R.T.: 0.000 min
Response: 6634985
Conc: 50.00 ug/ml



#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

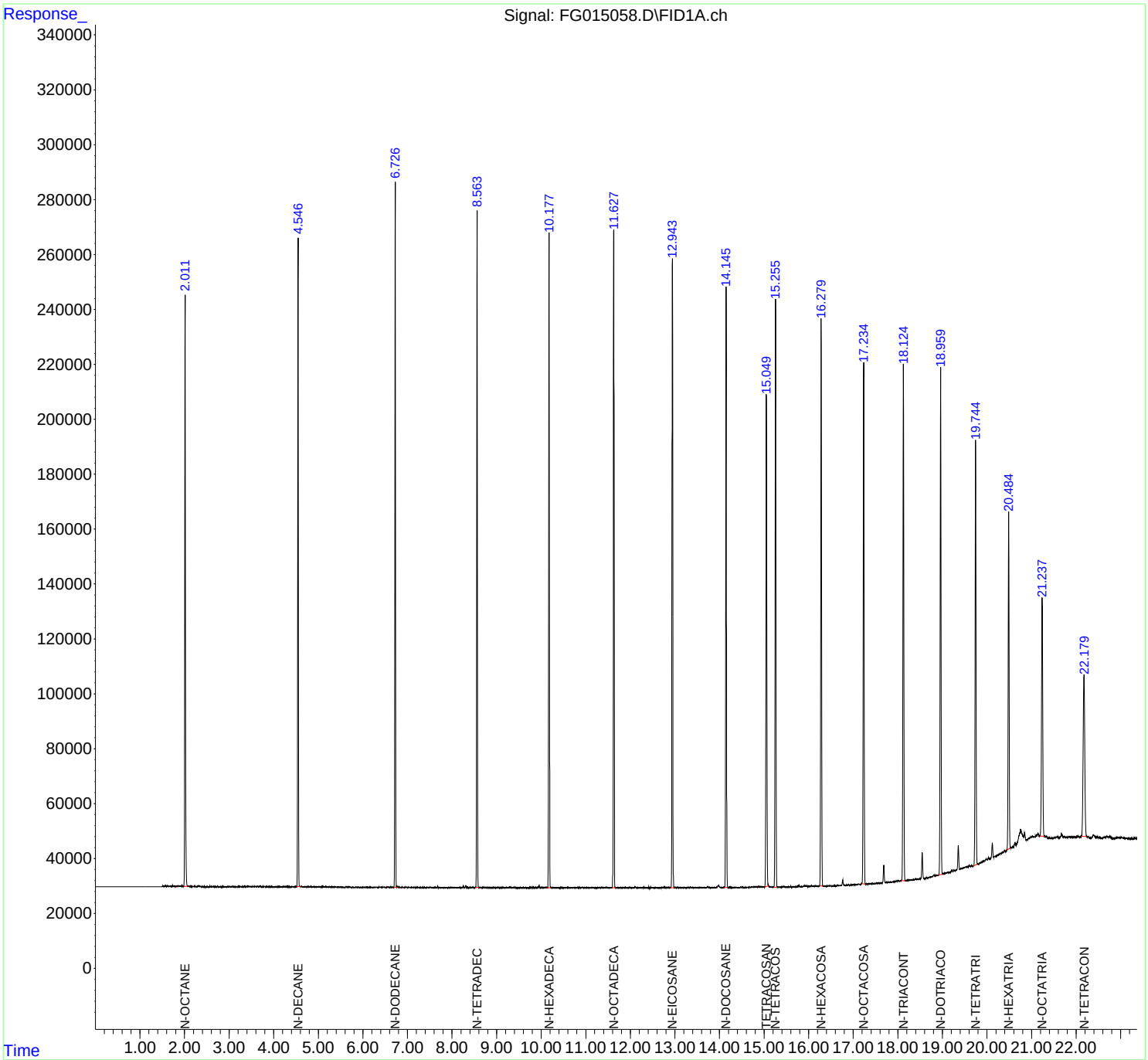
(f)=RT Delta > 1/2 Window (m)=manual int.

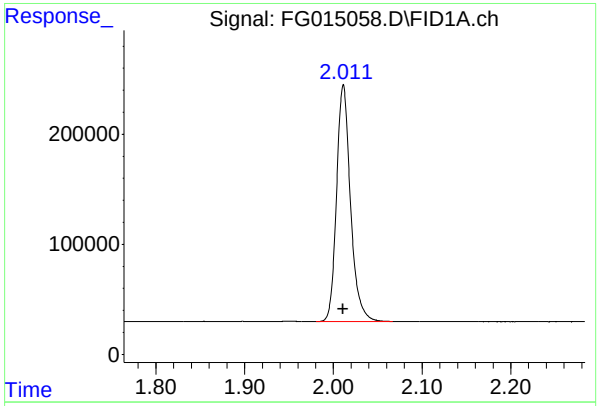
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015058.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:14
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 13 Sample Multiplier: 1

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

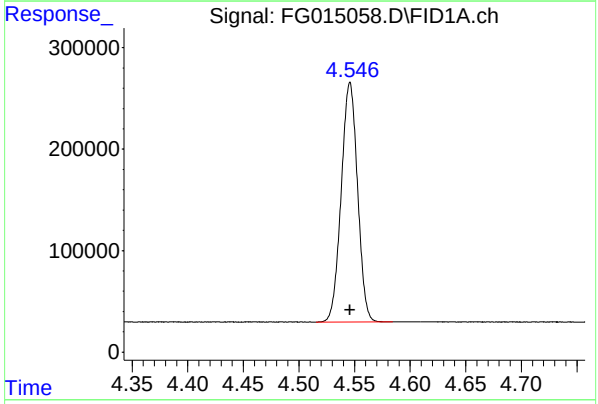




#1 N-OCTANE

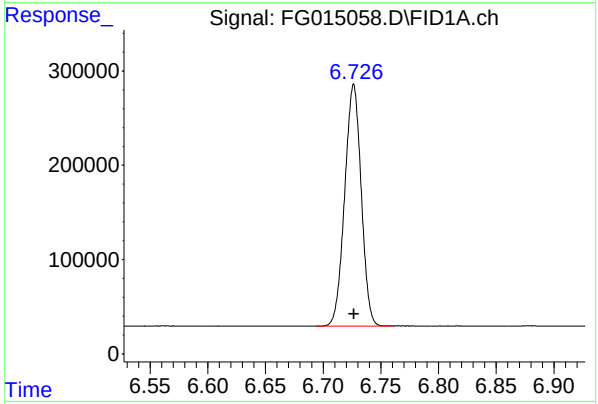
R.T.: 2.011 min
Delta R.T.: 0.000 min
Response: 2347743
Conc: 19.56 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



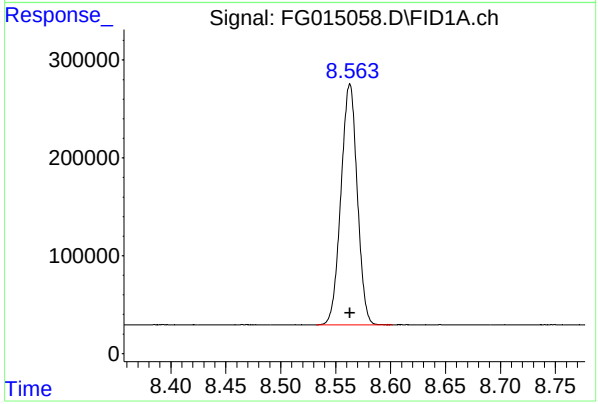
#2 N-DECANE

R.T.: 4.546 min
Delta R.T.: 0.000 min
Response: 2412466
Conc: 18.65 ug/ml



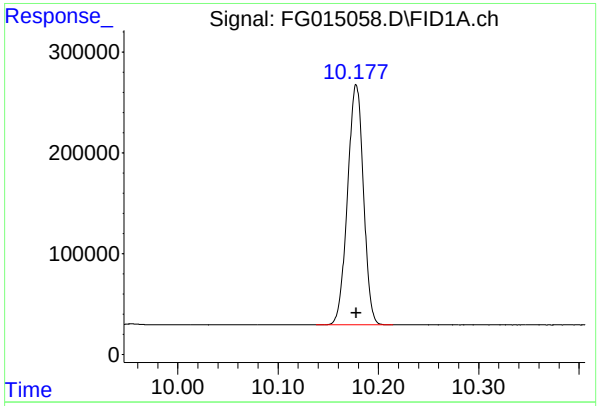
#3 N-DODECANE

R.T.: 6.726 min
Delta R.T.: 0.000 min
Response: 2548018
Conc: 18.72 ug/ml



#4 N-TETRADECANE

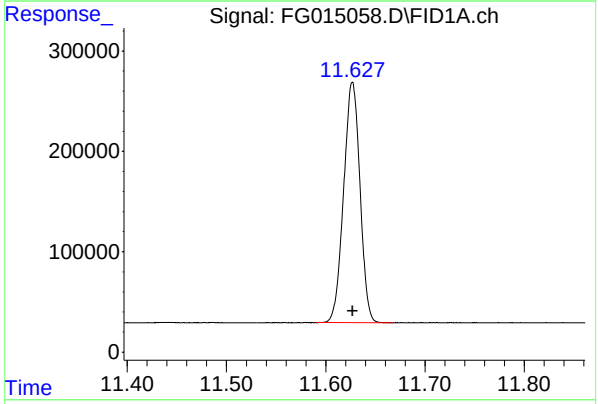
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 2539205
Conc: 18.52 ug/ml



#5 N-HEXADECANE

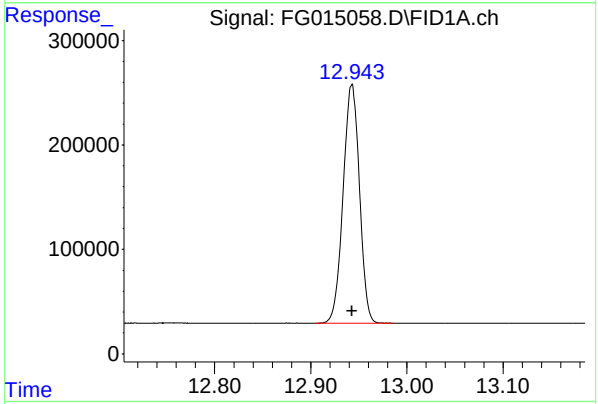
R.T.: 10.178 min
Delta R.T.: 0.000 min
Response: 2630204
Conc: 18.68 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



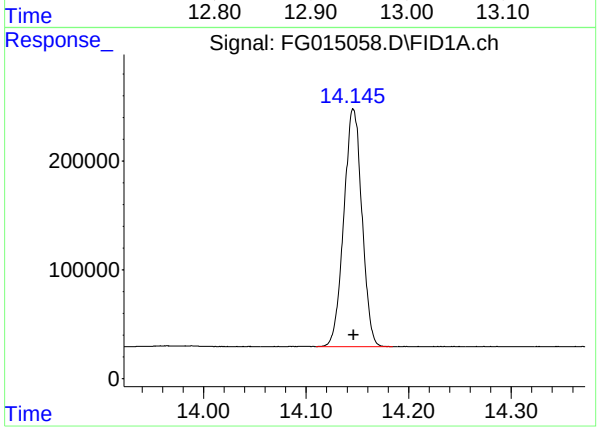
#6 N-OCTADECANE

R.T.: 11.627 min
Delta R.T.: 0.000 min
Response: 2743181
Conc: 18.80 ug/ml



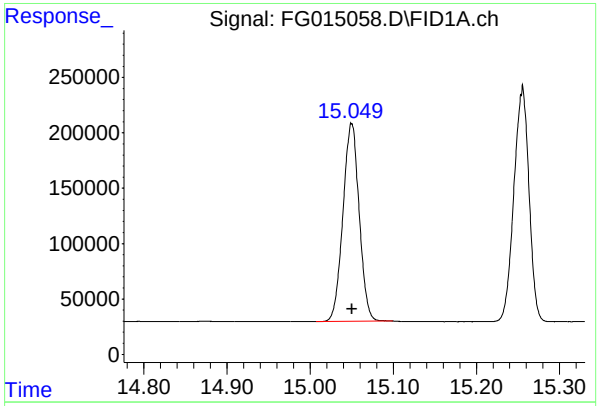
#7 N-EICOSANE

R.T.: 12.943 min
Delta R.T.: 0.000 min
Response: 2706469
Conc: 18.63 ug/ml



#8 N-DOCOSANE

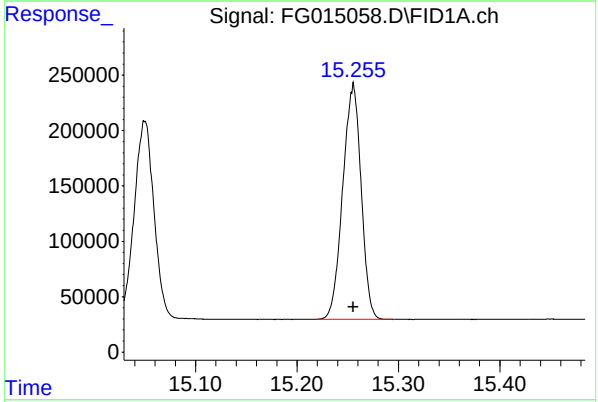
R.T.: 14.146 min
Delta R.T.: 0.000 min
Response: 2682390
Conc: 18.77 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

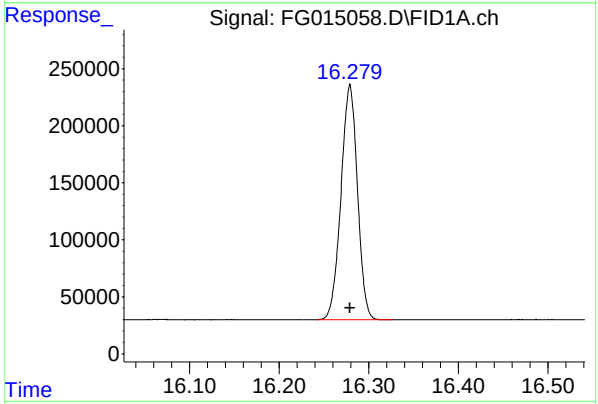
R.T.: 15.050 min
Delta R.T.: 0.000 min
Response: 2426477
Conc: 18.99 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



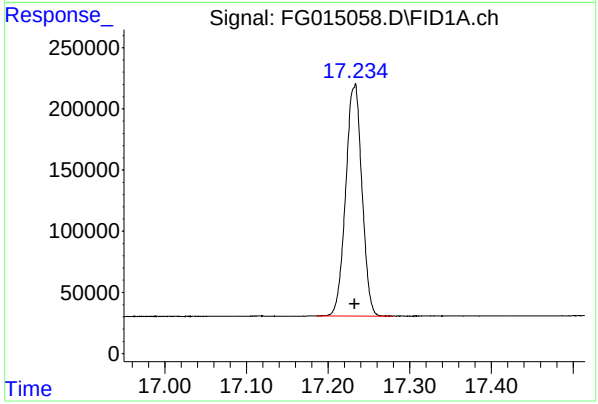
#10 N-TETRACOSANE

R.T.: 15.255 min
Delta R.T.: 0.000 min
Response: 2673287
Conc: 18.80 ug/ml



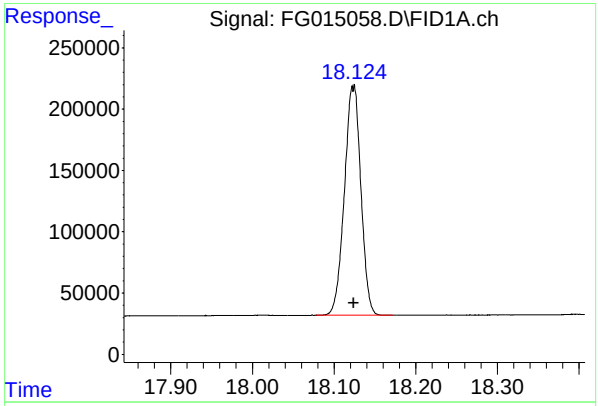
#11 N-HEXACOSANE

R.T.: 16.279 min
Delta R.T.: 0.000 min
Response: 2631421
Conc: 18.76 ug/ml



#12 N-OCTACOSANE

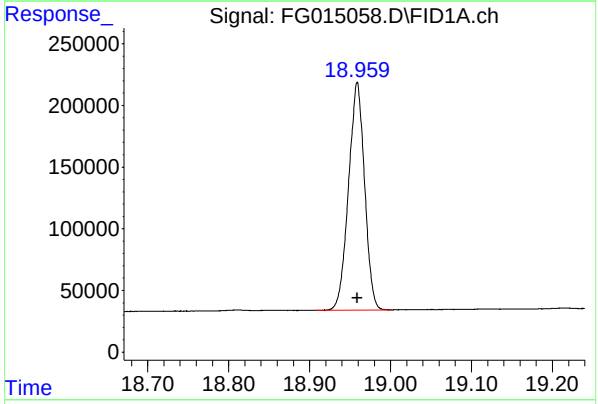
R.T.: 17.233 min
Delta R.T.: 0.000 min
Response: 2611804
Conc: 18.84 ug/ml



#13 N-TRIACONTANE

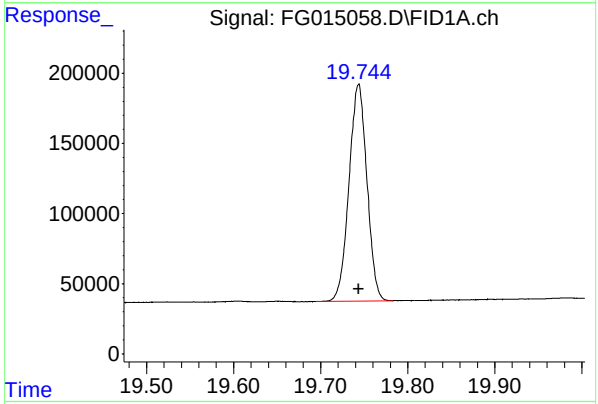
R.T.: 18.124 min
Delta R.T.: 0.000 min
Response: 2626561
Conc: 18.79 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



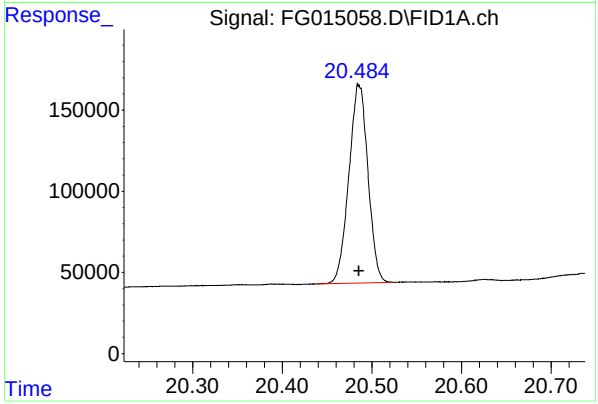
#14 N-DOTRIACONTANE

R.T.: 18.959 min
Delta R.T.: 0.000 min
Response: 2540319
Conc: 18.74 ug/ml



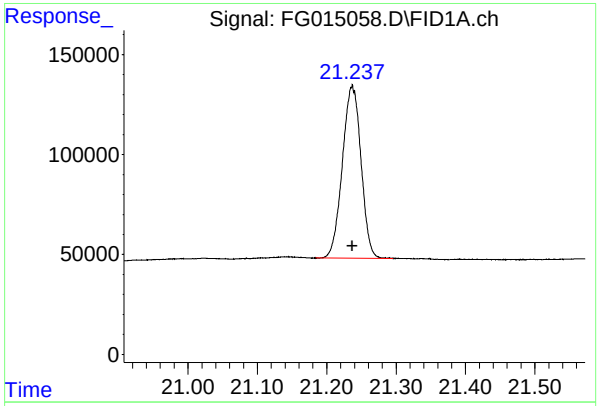
#15 N-TETRATRIACONTANE

R.T.: 19.744 min
Delta R.T.: 0.000 min
Response: 2210732
Conc: 18.06 ug/ml



#16 N-HEXATRIACONTANE

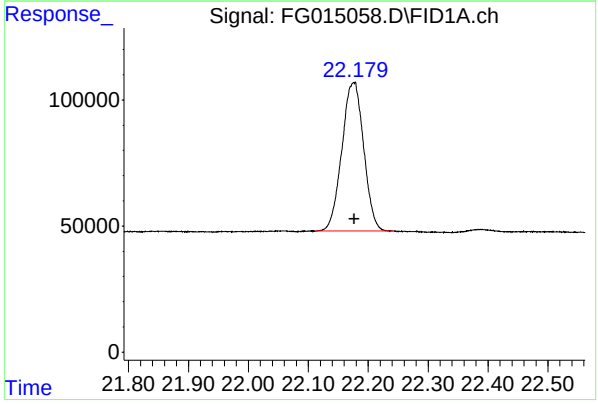
R.T.: 20.486 min
Delta R.T.: 0.000 min
Response: 1807283
Conc: 17.10 ug/ml



#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

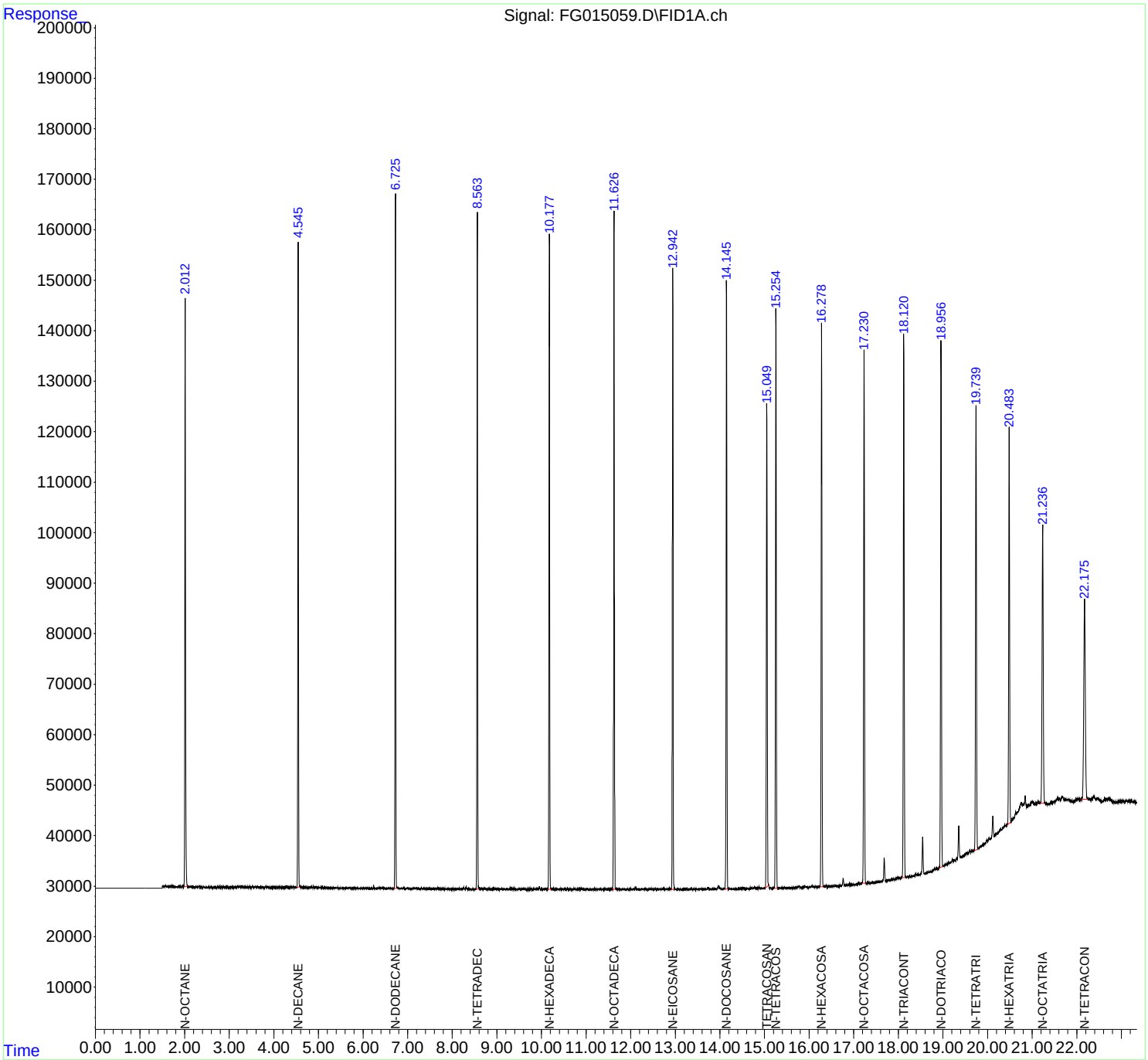
(f)=RT Delta > 1/2 Window (m)=manual int.

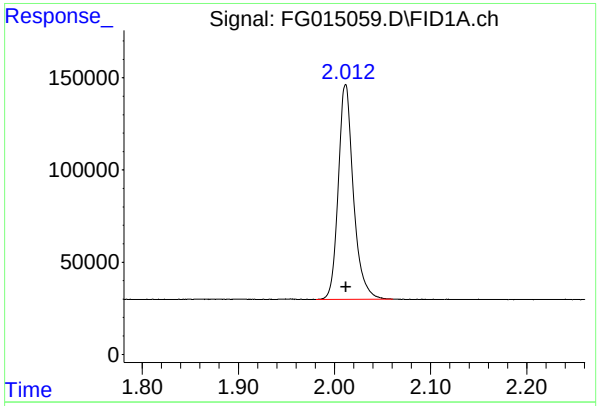
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015059.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 10:42
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 14 Sample Multiplier: 1

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

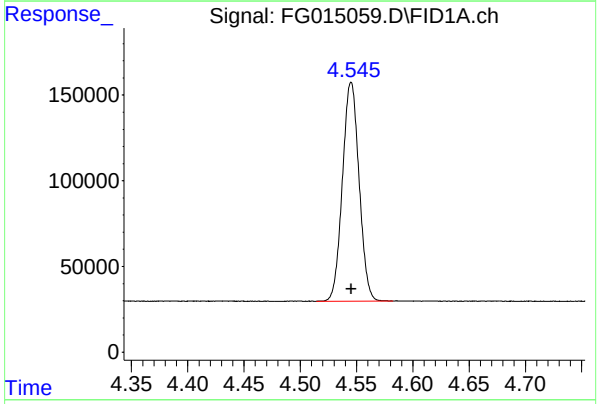




#1 N-OCTANE

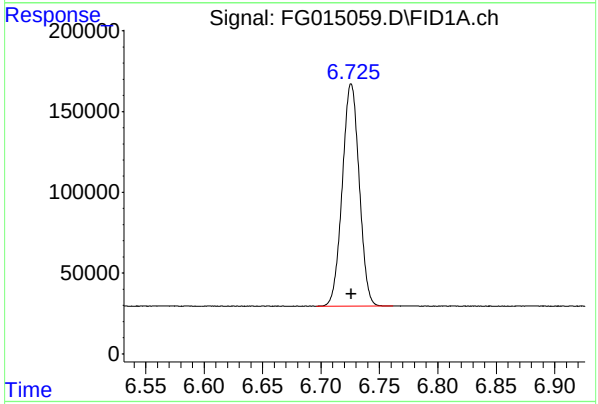
R.T.: 2.012 min
Delta R.T.: 0.000 min
Response: 1276191
Conc: 10.47 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



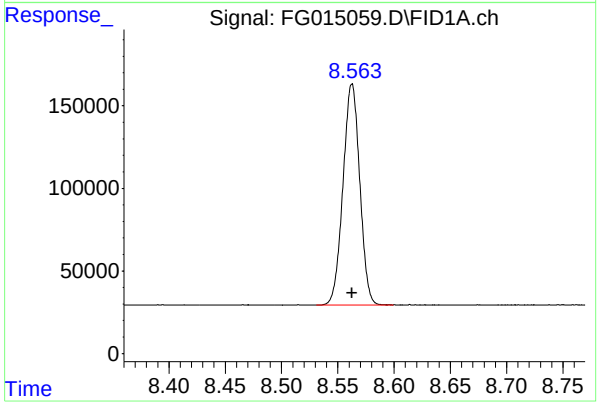
#2 N-DECANE

R.T.: 4.545 min
Delta R.T.: 0.000 min
Response: 1314669
Conc: 10.12 ug/ml



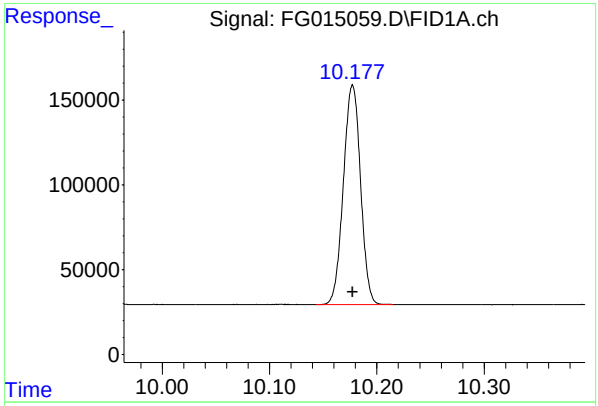
#3 N-DODECANE

R.T.: 6.726 min
Delta R.T.: 0.000 min
Response: 1389408
Conc: 10.16 ug/ml



#4 N-TETRADECANE

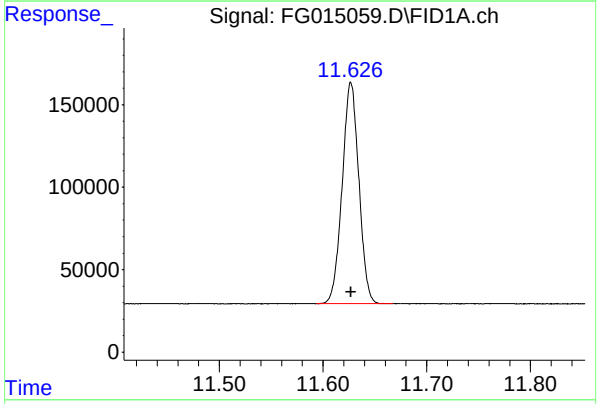
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 1386903
Conc: 10.09 ug/ml



#5 N-HEXADECANE

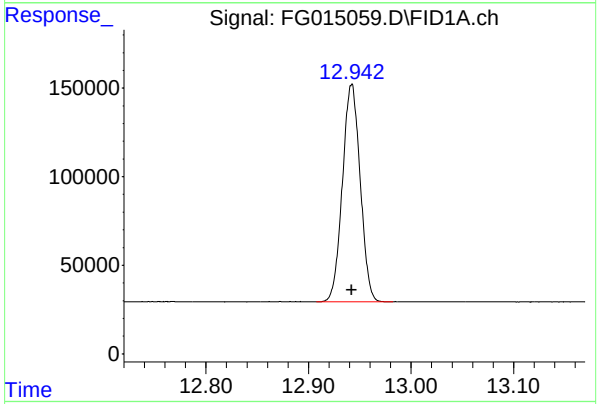
R.T.: 10.177 min
Delta R.T.: 0.000 min
Response: 1437974
Conc: 10.16 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



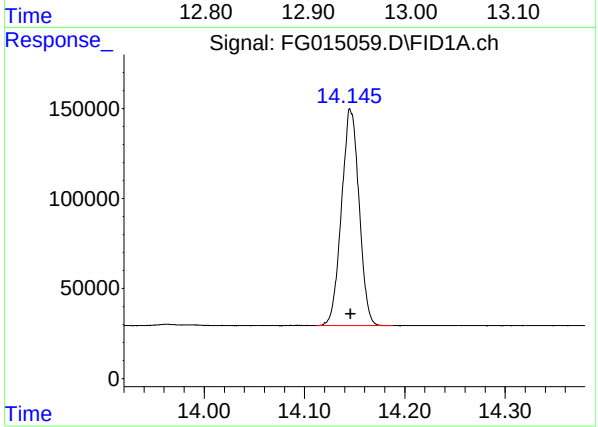
#6 N-OCTADECANE

R.T.: 11.627 min
Delta R.T.: 0.000 min
Response: 1501248
Conc: 10.21 ug/ml



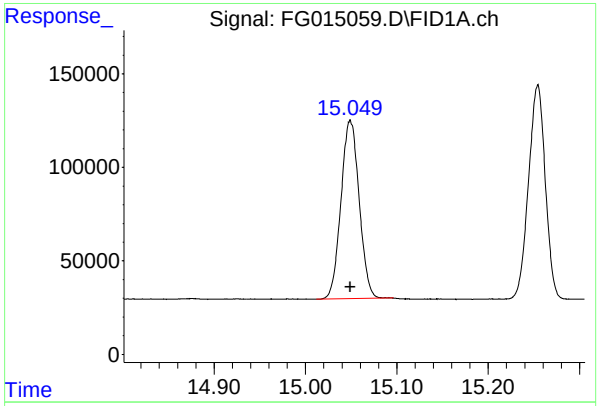
#7 N-EICOSANE

R.T.: 12.942 min
Delta R.T.: 0.000 min
Response: 1478786
Conc: 10.13 ug/ml



#8 N-DOCOSANE

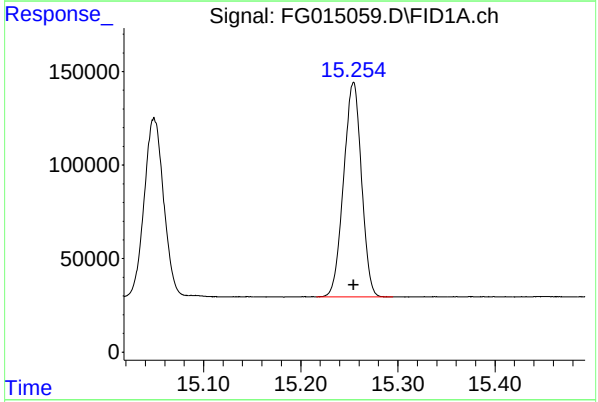
R.T.: 14.146 min
Delta R.T.: 0.000 min
Response: 1466497
Conc: 10.20 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

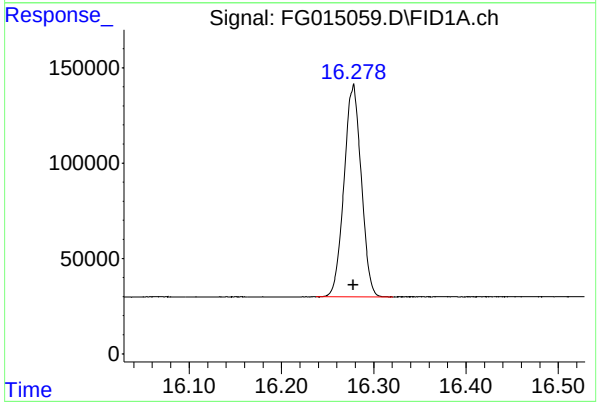
R.T.: 15.049 min
Delta R.T.: 0.000 min
Response: 1319274
Conc: 10.24 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



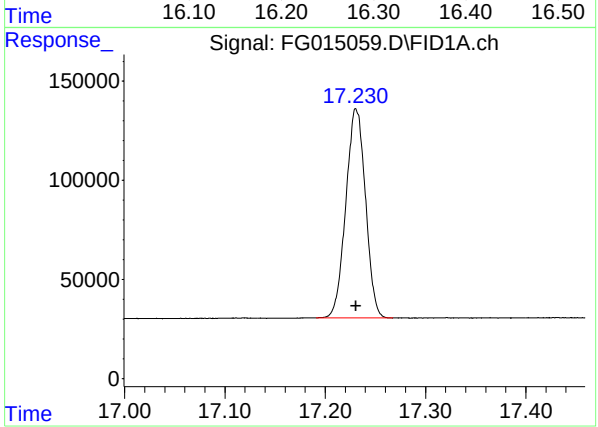
#10 N-TETRACOSANE

R.T.: 15.254 min
Delta R.T.: 0.000 min
Response: 1461022
Conc: 10.21 ug/ml



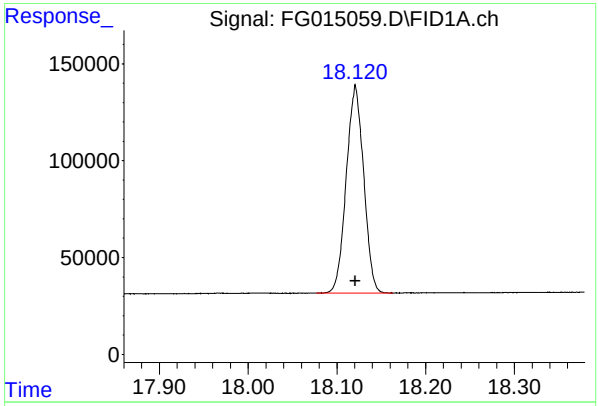
#11 N-HEXACOSANE

R.T.: 16.278 min
Delta R.T.: 0.000 min
Response: 1440458
Conc: 10.20 ug/ml



#12 N-OCTACOSANE

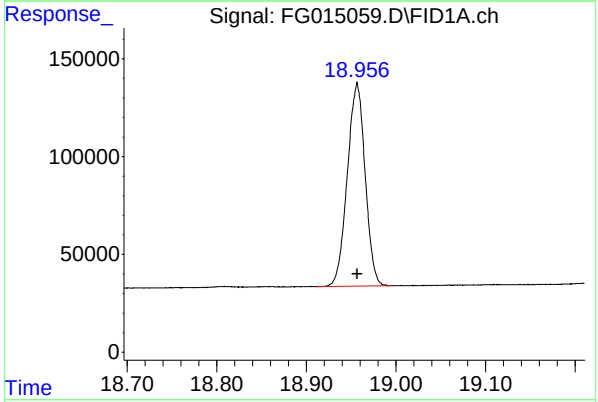
R.T.: 17.231 min
Delta R.T.: 0.000 min
Response: 1437456
Conc: 10.27 ug/ml



#13 N-TRIACONTANE

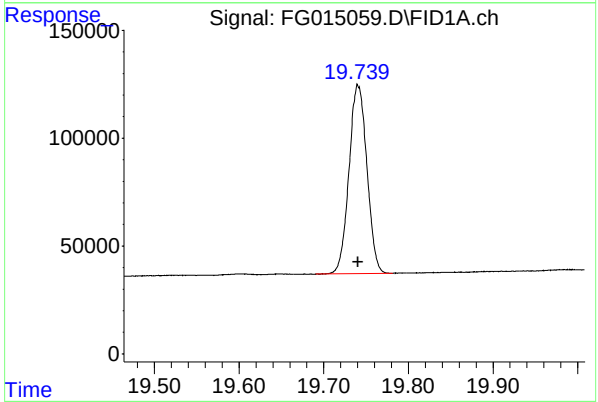
R.T.: 18.121 min
Delta R.T.: 0.000 min
Response: 1459210
Conc: 10.33 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



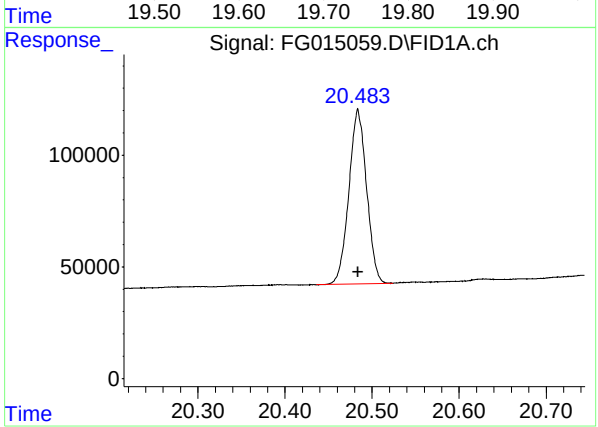
#14 N-DOTRIACONTANE

R.T.: 18.957 min
Delta R.T.: 0.000 min
Response: 1433212
Conc: 10.42 ug/ml



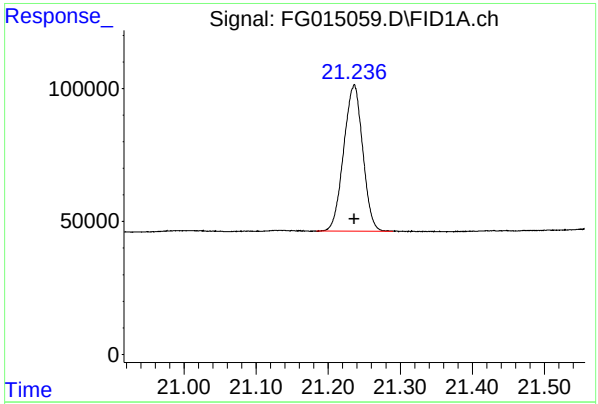
#15 N-TETRATRIACONTANE

R.T.: 19.741 min
Delta R.T.: 0.000 min
Response: 1288019
Conc: 10.39 ug/ml



#16 N-HEXATRIACONTANE

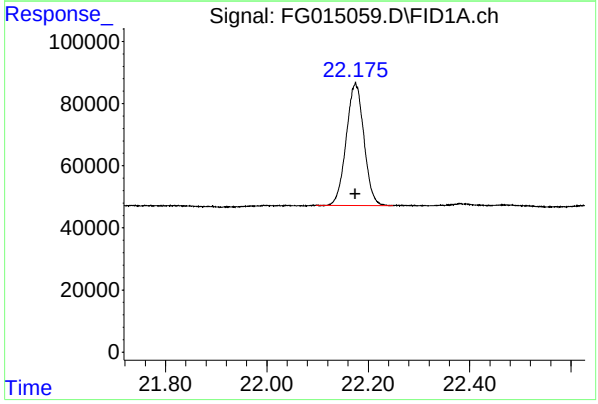
R.T.: 20.484 min
Delta R.T.: 0.000 min
Response: 1102769
Conc: 10.32 ug/ml



#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

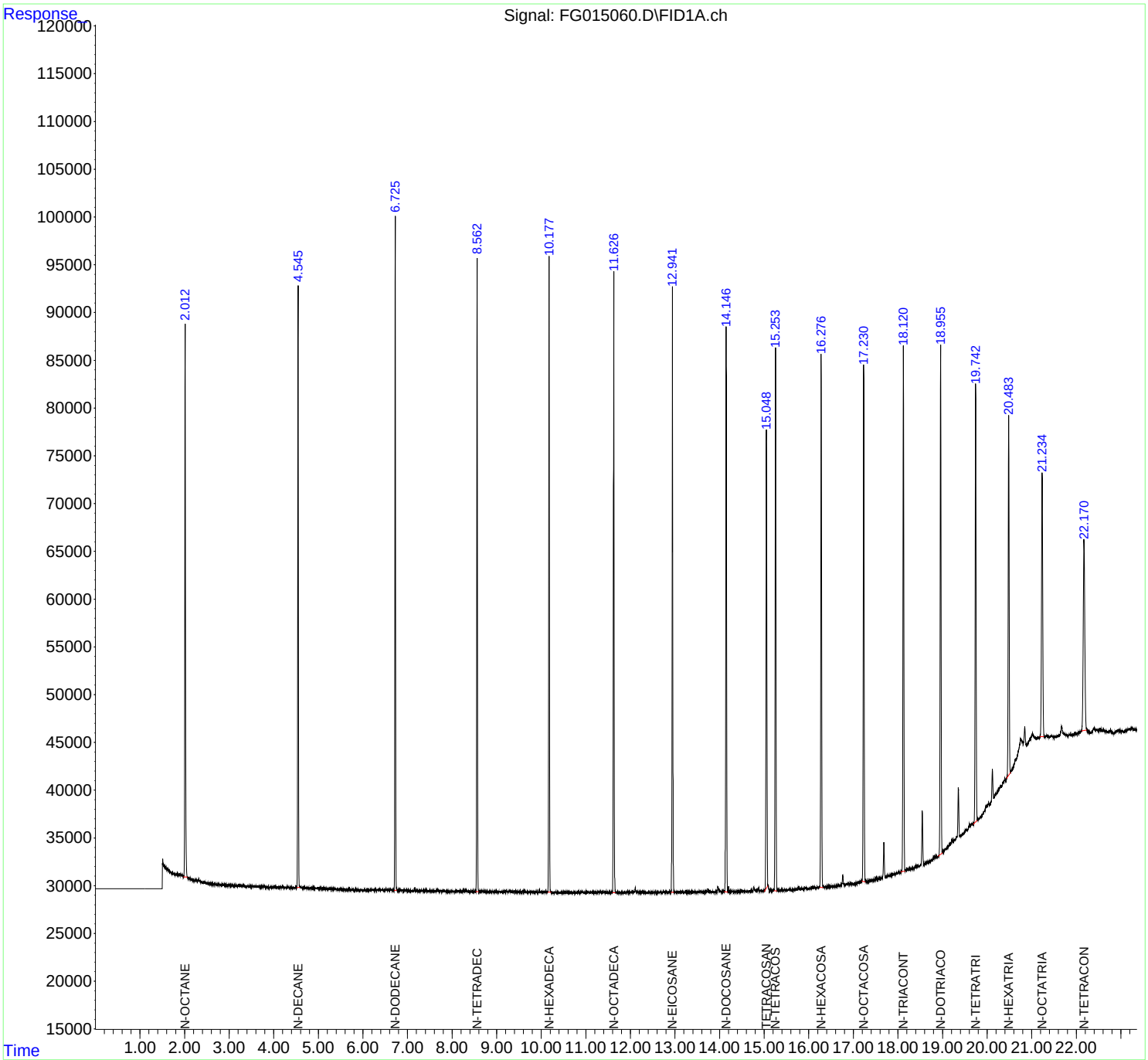
(f)=RT Delta > 1/2 Window (m)=manual int.

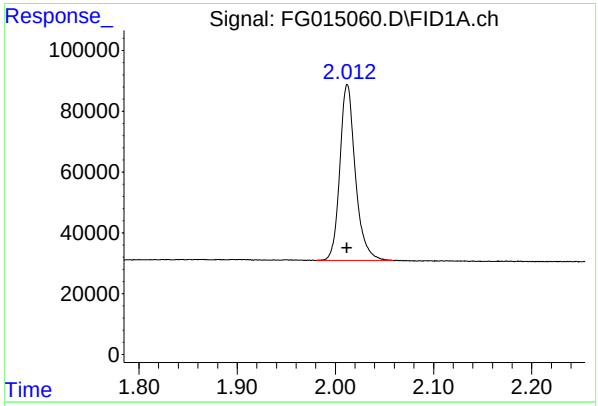
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015060.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:11
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 15 Sample Multiplier: 1

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

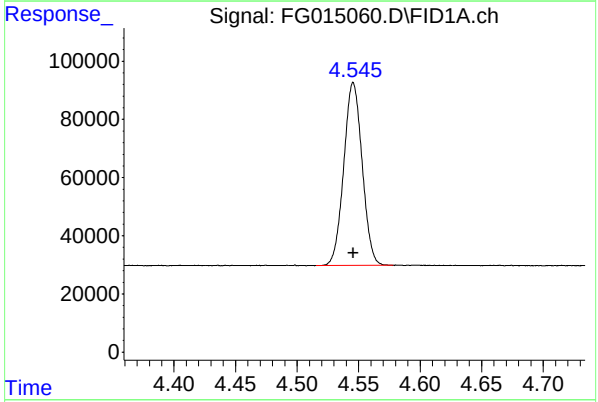




#1 N-OCTANE

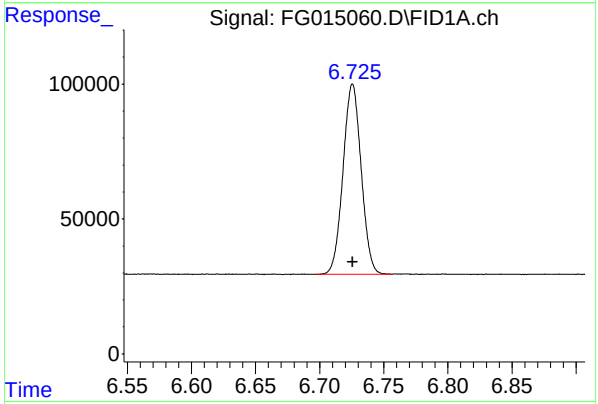
R.T.: 2.012 min
Delta R.T.: 0.000 min
Response: 634654
Conc: 5.16 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



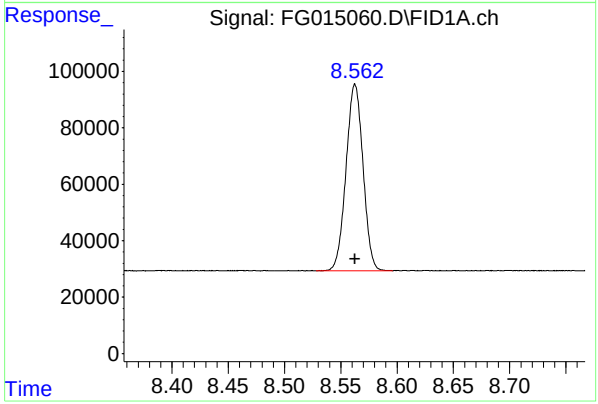
#2 N-DECANE

R.T.: 4.546 min
Delta R.T.: 0.000 min
Response: 654008
Conc: 5.03 ug/ml



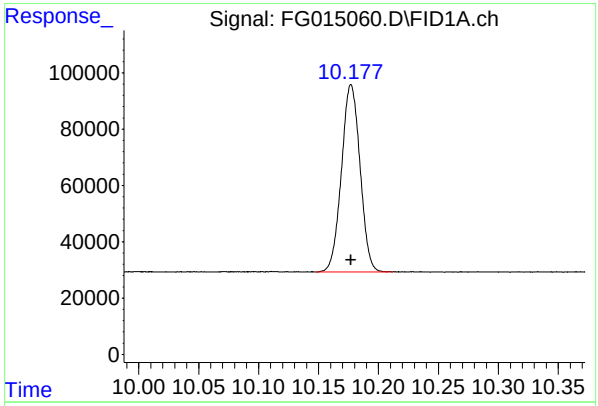
#3 N-DODECANE

R.T.: 6.726 min
Delta R.T.: 0.000 min
Response: 692533
Conc: 5.05 ug/ml



#4 N-TETRADECANE

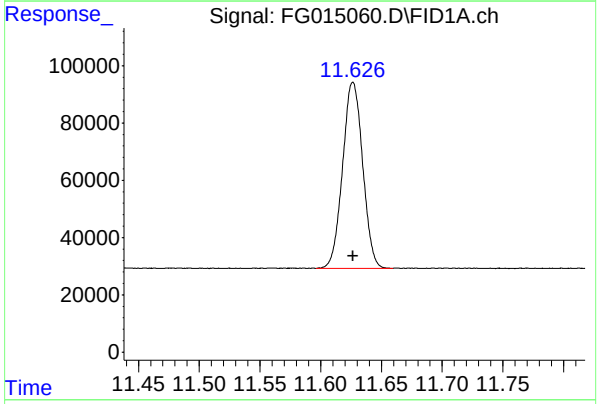
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 693227
Conc: 5.03 ug/ml



#5 N-HEXADECANE

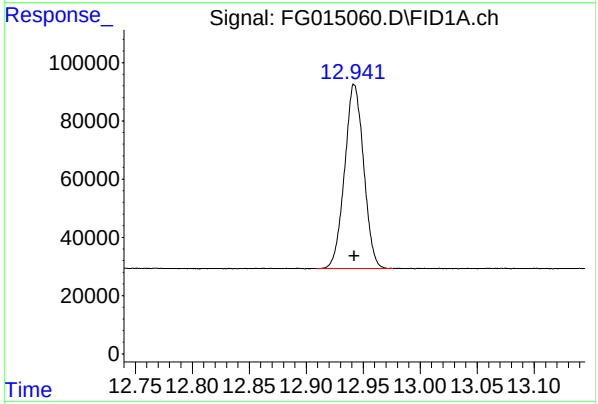
R.T.: 10.177 min
Delta R.T.: 0.000 min
Response: 716946
Conc: 5.05 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



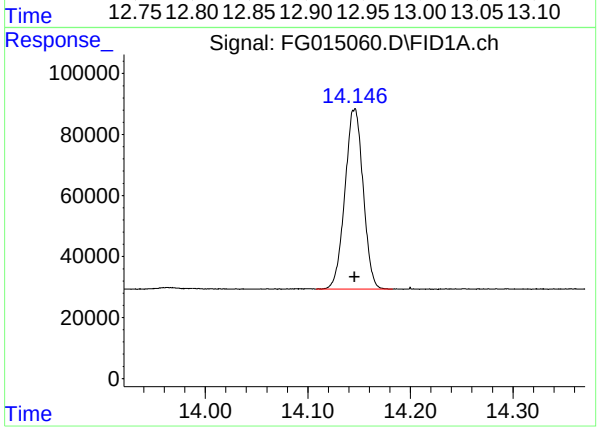
#6 N-OCTADECANE

R.T.: 11.627 min
Delta R.T.: 0.000 min
Response: 747864
Conc: 5.07 ug/ml



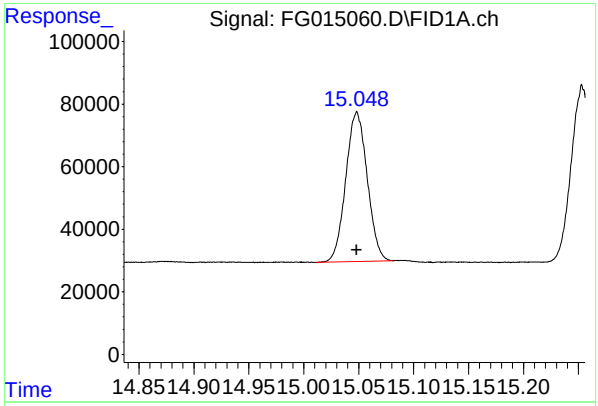
#7 N-EICOSANE

R.T.: 12.942 min
Delta R.T.: 0.000 min
Response: 734881
Conc: 5.03 ug/ml



#8 N-DOCOSANE

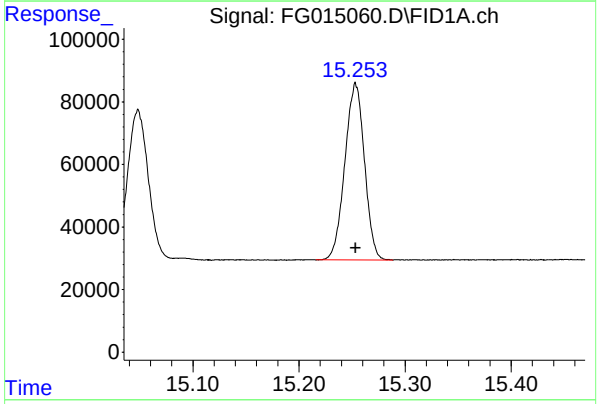
R.T.: 14.146 min
Delta R.T.: 0.000 min
Response: 728625
Conc: 5.05 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

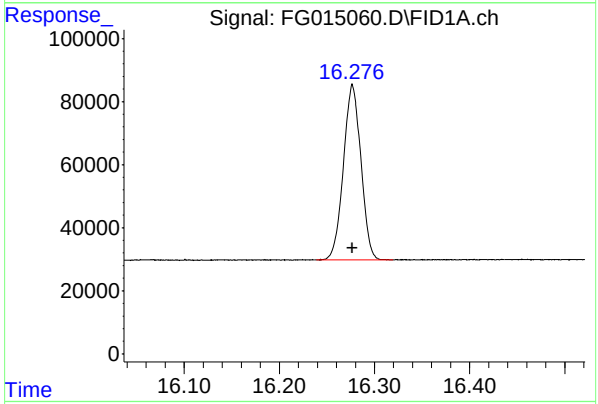
R.T.: 15.048 min
Delta R.T.: 0.000 min
Response: 648631
Conc: 5.03 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



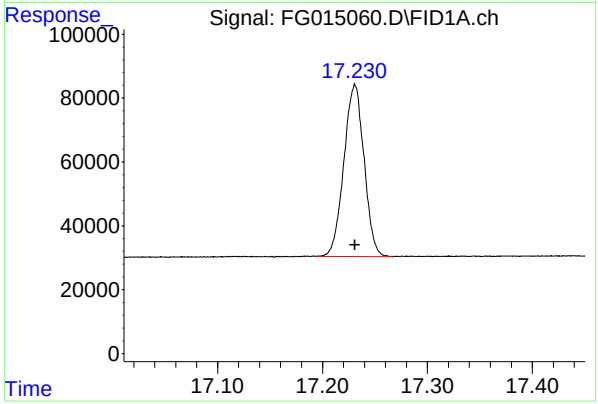
#10 N-TETRACOSANE

R.T.: 15.254 min
Delta R.T.: 0.000 min
Response: 725335
Conc: 5.05 ug/ml



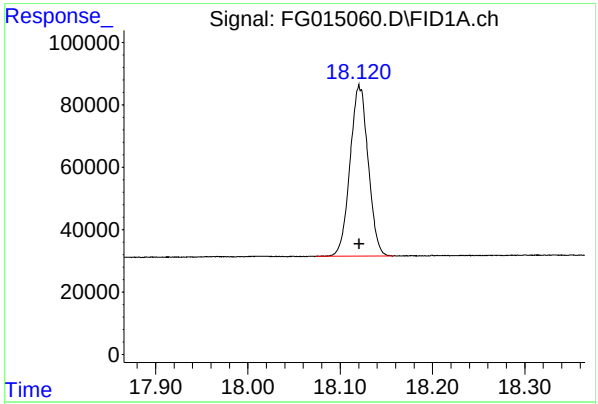
#11 N-HEXACOSANE

R.T.: 16.277 min
Delta R.T.: 0.000 min
Response: 714017
Conc: 5.04 ug/ml



#12 N-OCTACOSANE

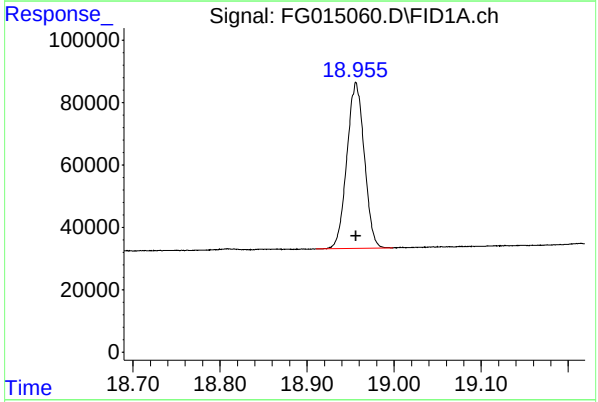
R.T.: 17.231 min
Delta R.T.: 0.000 min
Response: 719588
Conc: 5.11 ug/ml



#13 N-TRIACONTANE

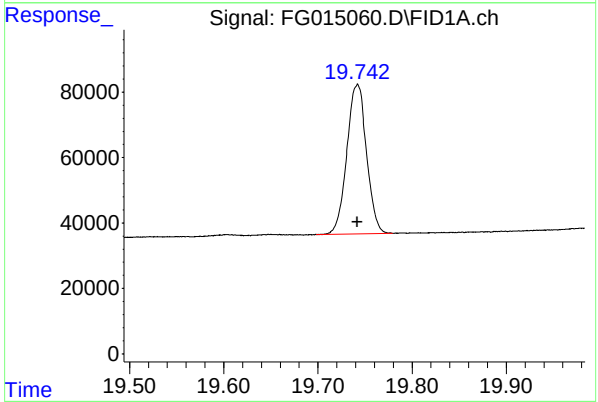
R.T.: 18.121 min
Delta R.T.: 0.000 min
Response: 746793
Conc: 5.23 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



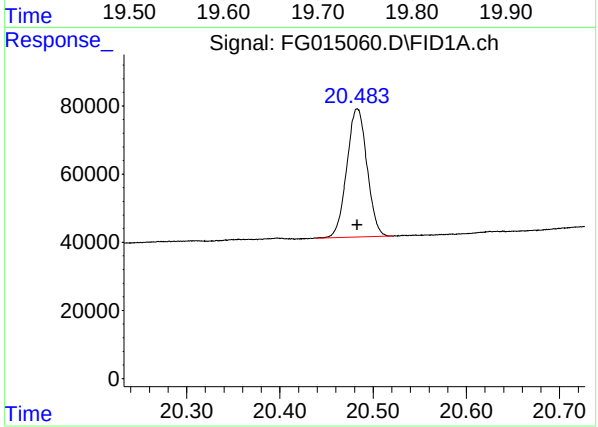
#14 N-DOTRIACONTANE

R.T.: 18.956 min
Delta R.T.: 0.000 min
Response: 739109
Conc: 5.30 ug/ml



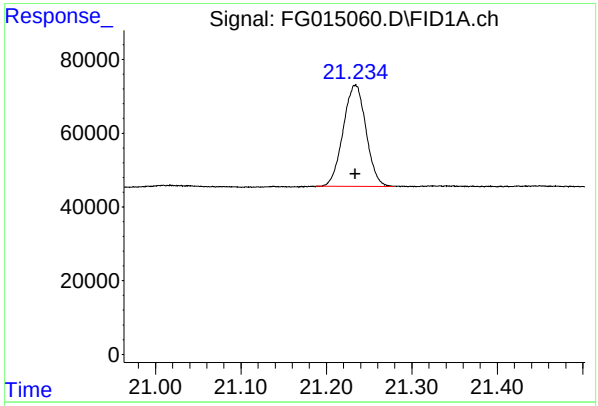
#15 N-TETRATRIACONTANE

R.T.: 19.742 min
Delta R.T.: 0.000 min
Response: 661594
Conc: 5.27 ug/ml



#16 N-HEXATRIACONTANE

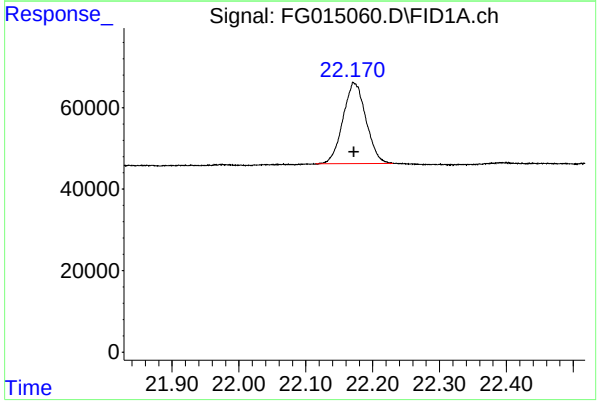
R.T.: 20.483 min
Delta R.T.: 0.000 min
Response: 565434
Conc: 5.23 ug/ml



#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

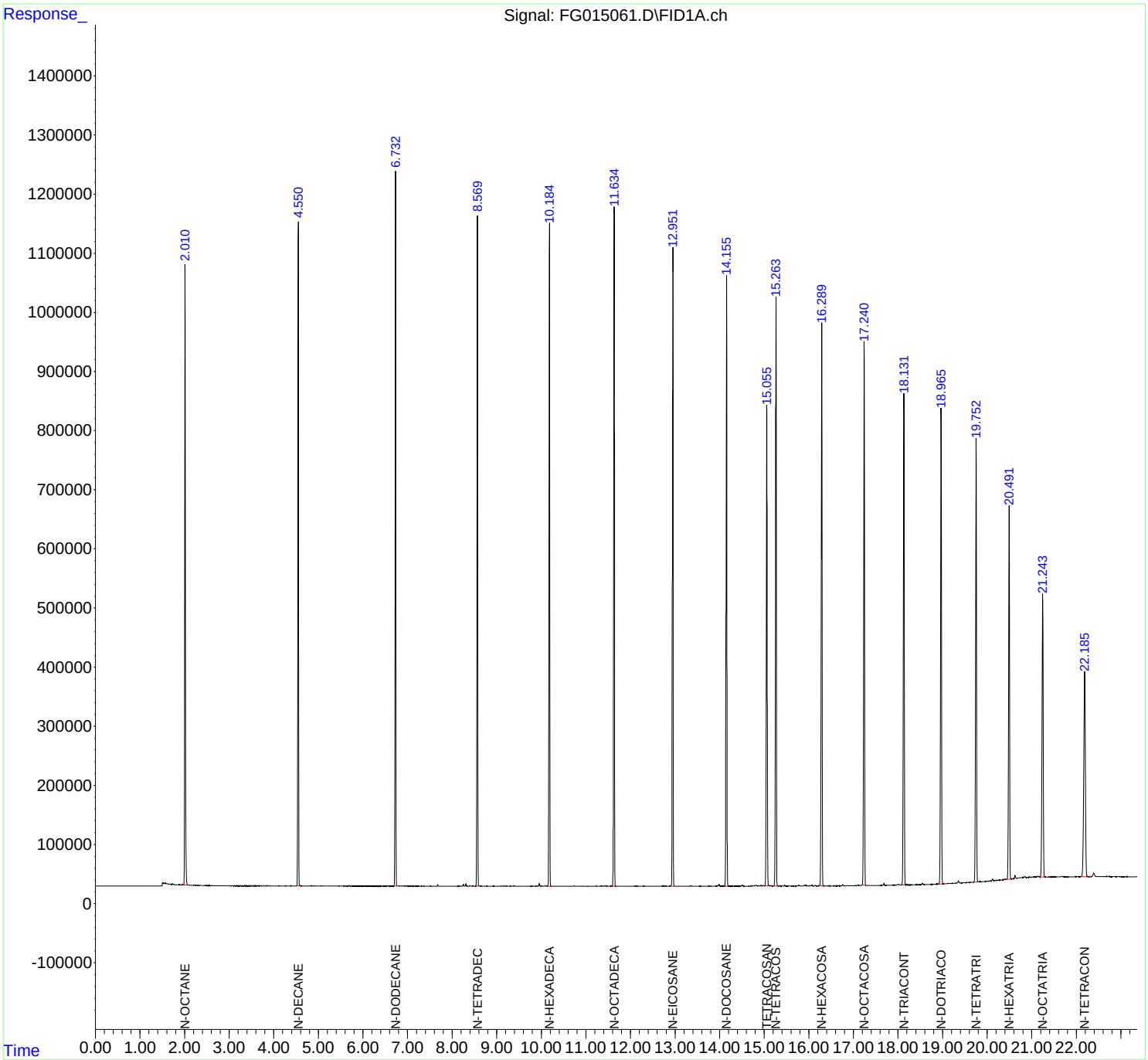
(f)=RT Delta > 1/2 Window (m)=manual int.

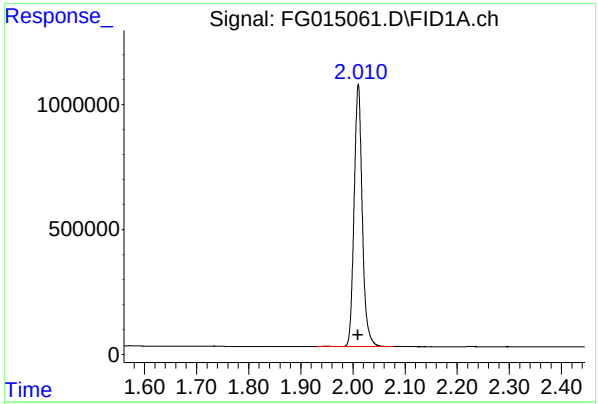
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015061.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 11:39
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

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

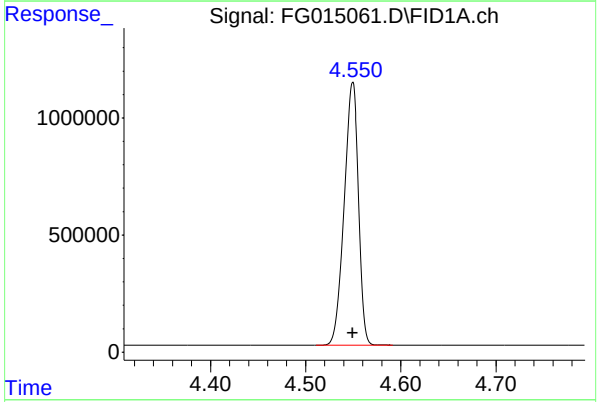




#1 N-OCTANE

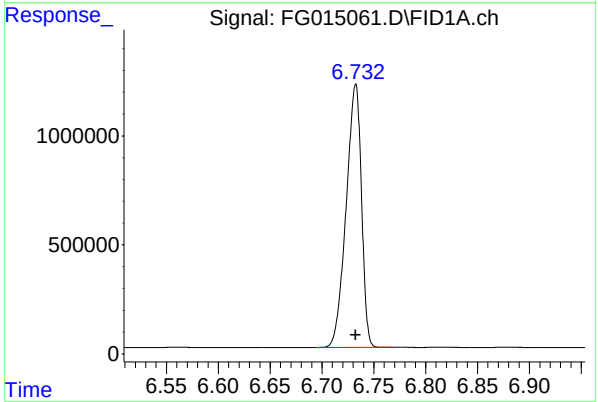
R.T.: 2.010 min
Delta R.T.: 0.000 min
Response: 11457523
Conc: 93.90 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



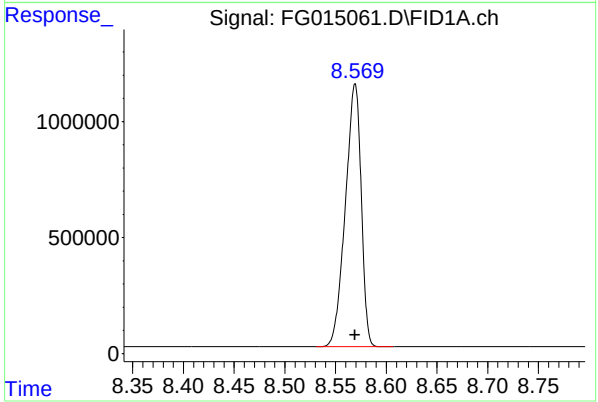
#2 N-DECANE

R.T.: 4.549 min
Delta R.T.: 0.000 min
Response: 11755056
Conc: 91.00 ug/ml



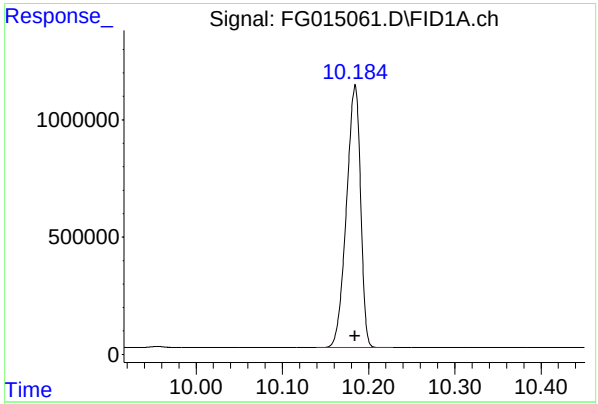
#3 N-DODECANE

R.T.: 6.732 min
Delta R.T.: 0.000 min
Response: 12400369
Conc: 91.02 ug/ml



#4 N-TETRADECANE

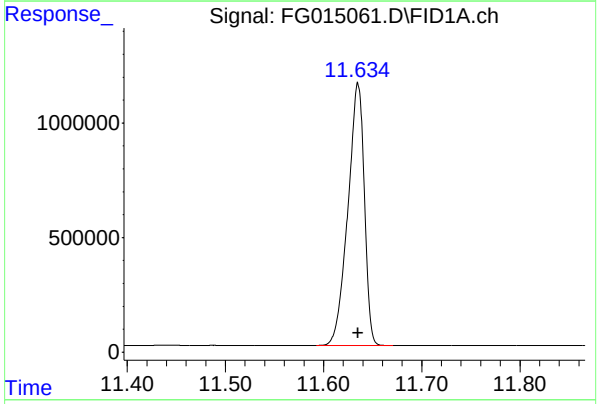
R.T.: 8.569 min
Delta R.T.: 0.000 min
Response: 12323693
Conc: 90.04 ug/ml



#5 N-HEXADECANE

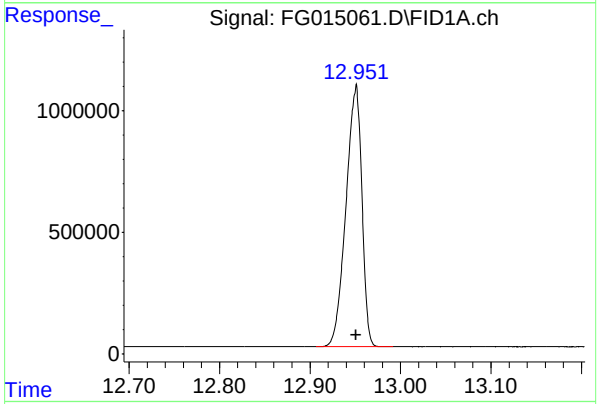
R.T.: 10.184 min
Delta R.T.: 0.000 min
Response: 12738160
Conc: 90.27 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



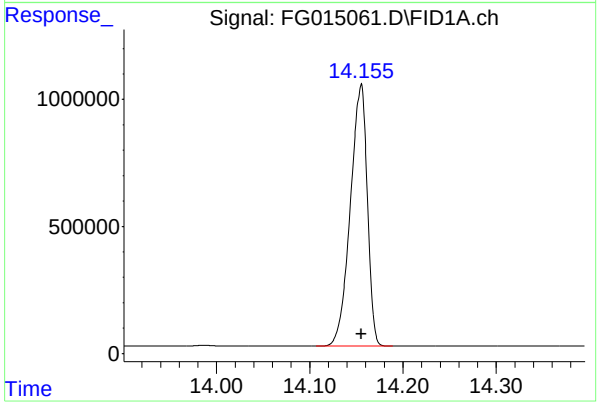
#6 N-OCTADECANE

R.T.: 11.635 min
Delta R.T.: 0.000 min
Response: 13302325
Conc: 90.68 ug/ml



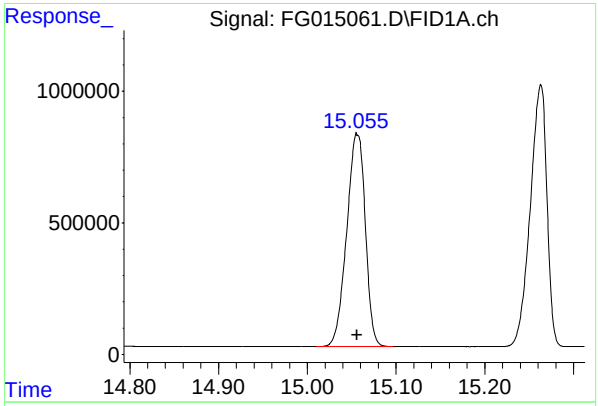
#7 N-EICOSANE

R.T.: 12.951 min
Delta R.T.: 0.000 min
Response: 13120855
Conc: 90.25 ug/ml



#8 N-DOCOSANE

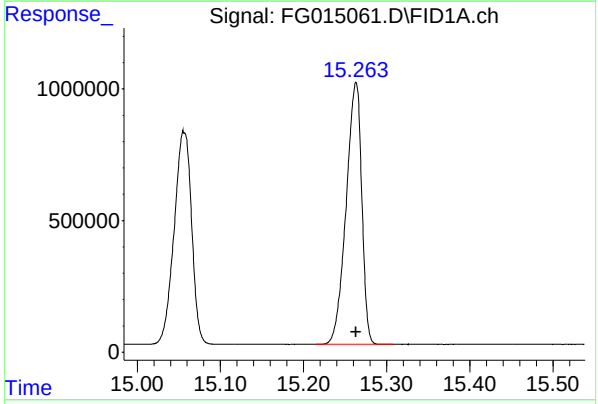
R.T.: 14.155 min
Delta R.T.: 0.000 min
Response: 13017284
Conc: 90.74 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

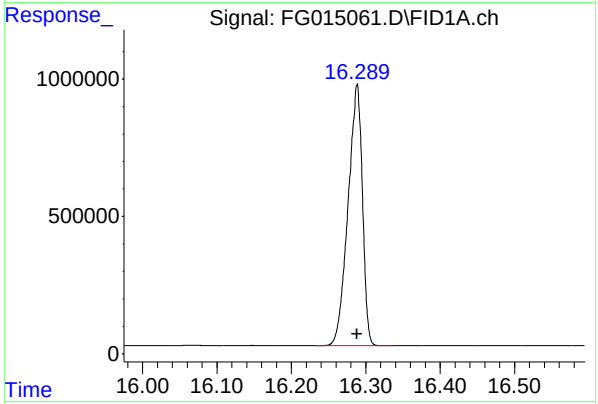
R.T.: 15.056 min
Delta R.T.: 0.000 min
Response: 11798567
Conc: 91.98 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



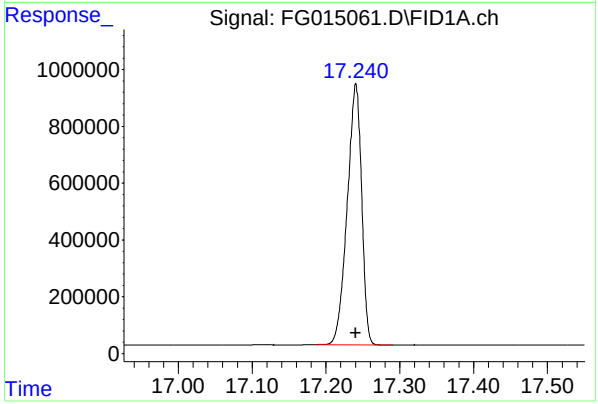
#10 N-TETRACOSANE

R.T.: 15.263 min
Delta R.T.: 0.000 min
Response: 12974293
Conc: 90.84 ug/ml



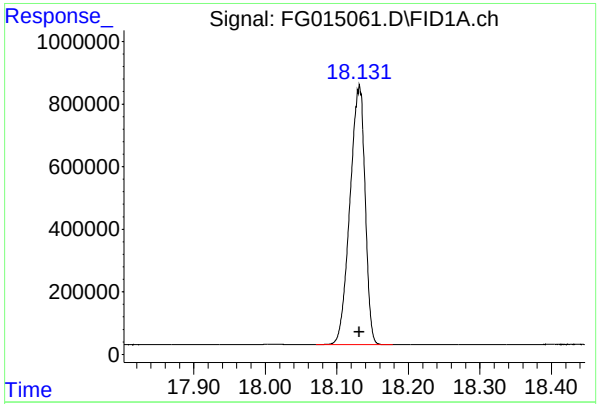
#11 N-HEXACOSANE

R.T.: 16.288 min
Delta R.T.: 0.000 min
Response: 12736383
Conc: 90.43 ug/ml



#12 N-OCTACOSANE

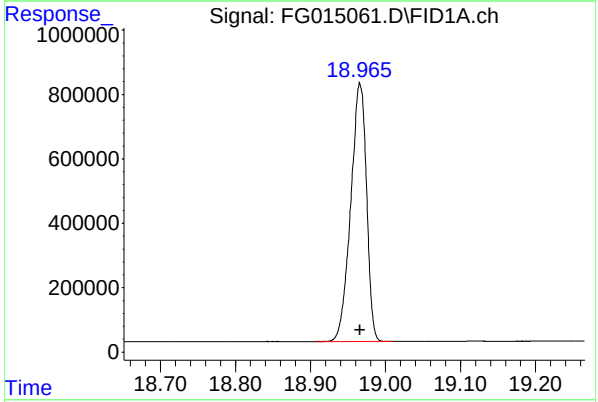
R.T.: 17.241 min
Delta R.T.: 0.000 min
Response: 12438625
Conc: 88.83 ug/ml



#13 N-TRIACONTANE

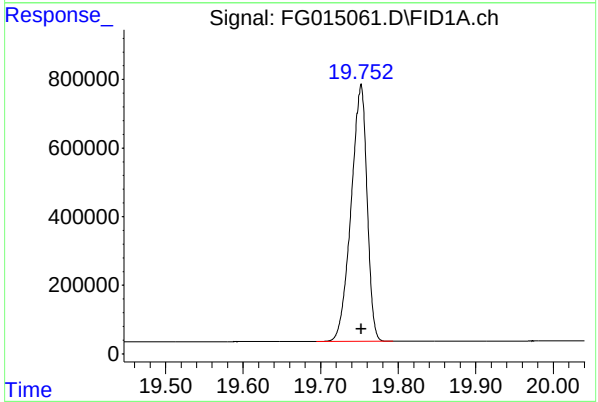
R.T.: 18.132 min
Delta R.T.: 0.000 min
Response: 12179850
Conc: 85.61 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



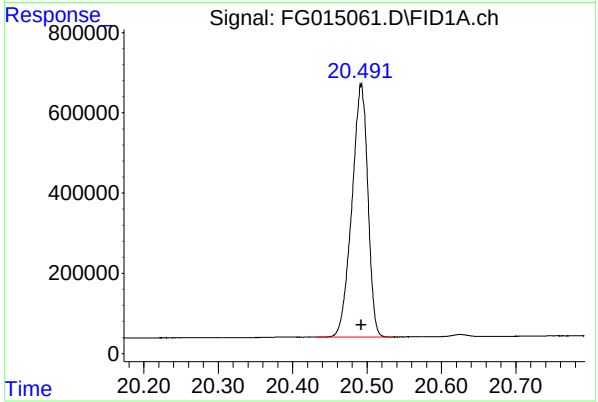
#14 N-DOTRIACONTANE

R.T.: 18.966 min
Delta R.T.: 0.000 min
Response: 11733502
Conc: 84.42 ug/ml



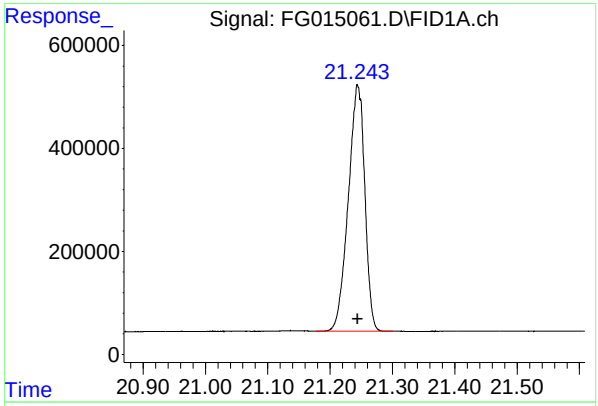
#15 N-TETRATRIACONTANE

R.T.: 19.752 min
Delta R.T.: 0.000 min
Response: 10691422
Conc: 85.33 ug/ml



#16 N-HEXATRIACONTANE

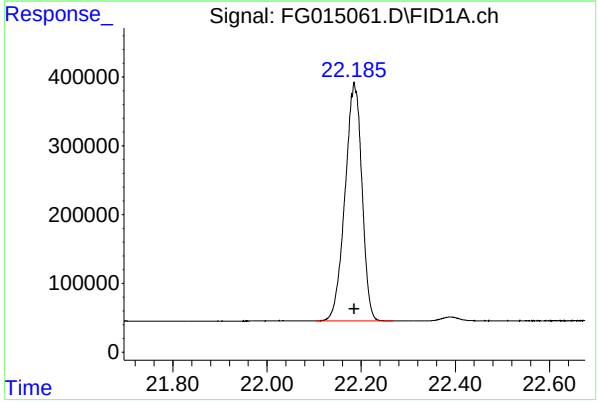
R.T.: 20.492 min
Delta R.T.: 0.000 min
Response: 9388301
Conc: 86.88 ug/ml



#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

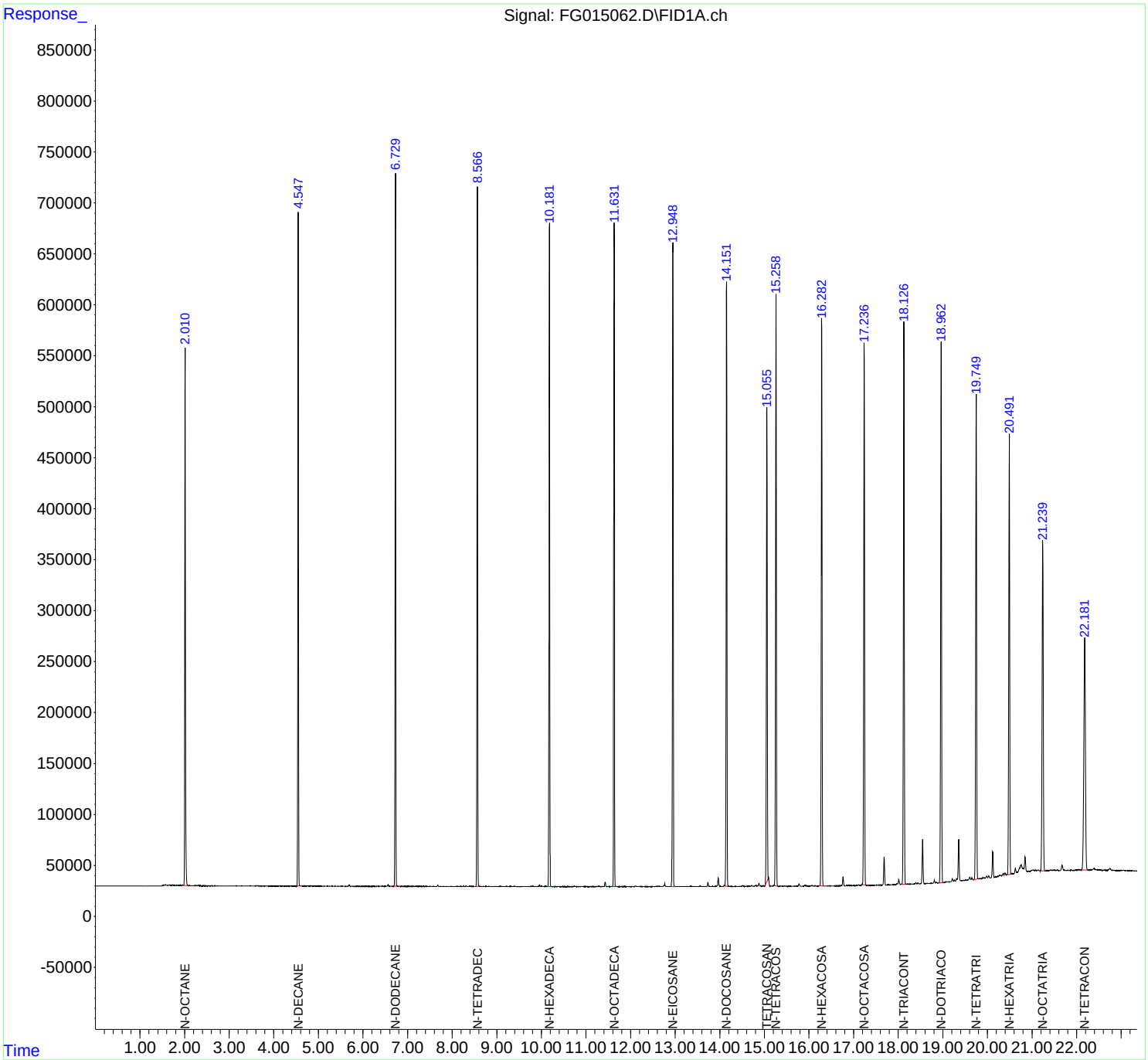
(f)=RT Delta > 1/2 Window (m)=manual int.

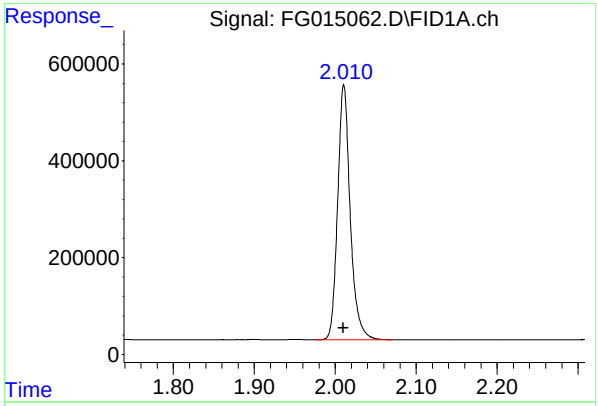
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG011325\
Data File : FG015062.D
Signal(s) : FID1A.ch
Acq On : 13 Jan 2025 12:07
Operator : YP\AJ
Sample : FG011325ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

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

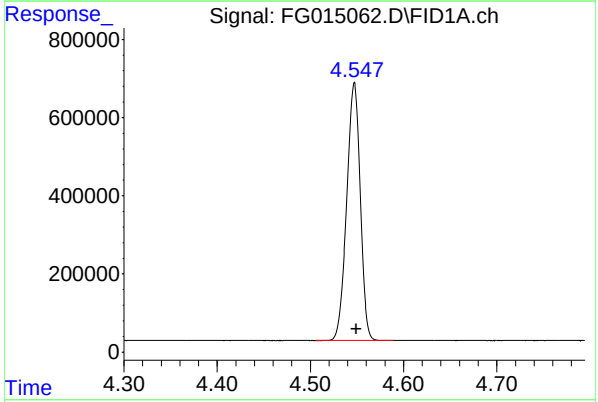




#1 N-OCTANE

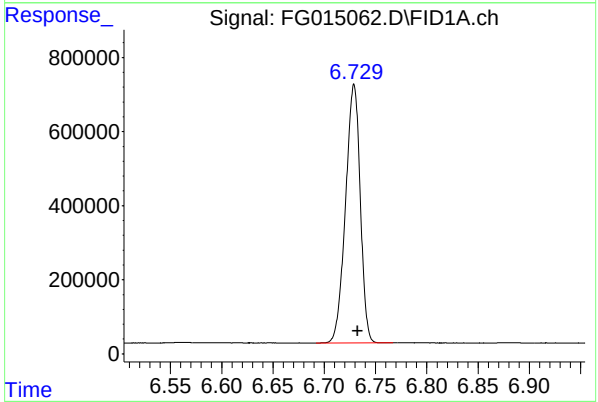
R.T.: 2.011 min
Delta R.T.: 0.000 min
Response: 5689865
Conc: 46.63 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



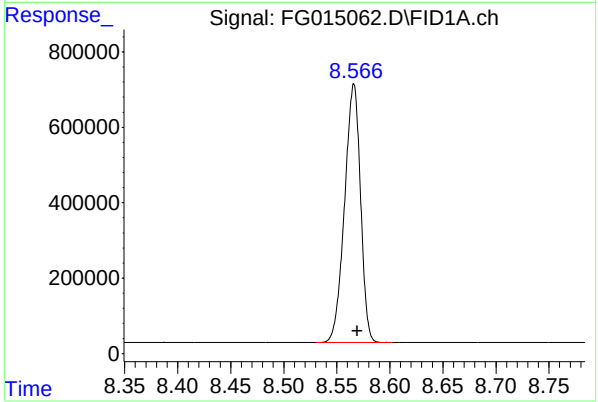
#2 N-DECANE

R.T.: 4.547 min
Delta R.T.: -0.002 min
Response: 6668871
Conc: 51.63 ug/ml



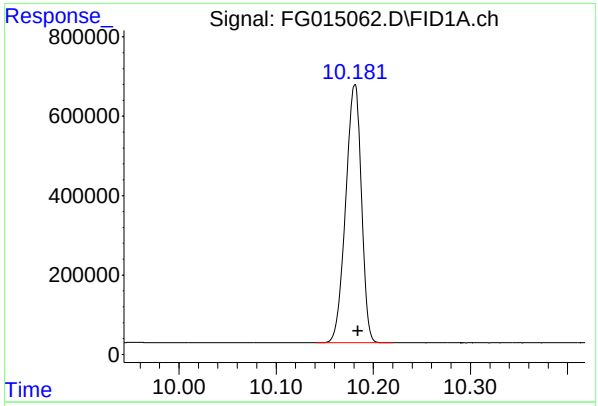
#3 N-DODECANE

R.T.: 6.729 min
Delta R.T.: -0.003 min
Response: 6965368
Conc: 51.13 ug/ml



#4 N-TETRADECANE

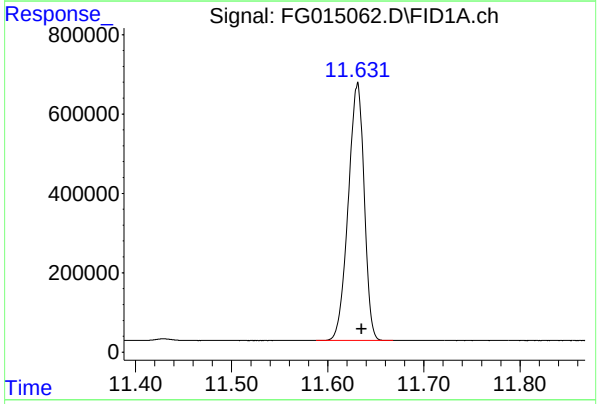
R.T.: 8.566 min
Delta R.T.: -0.003 min
Response: 7162213
Conc: 52.33 ug/ml



#5 N-HEXADECANE

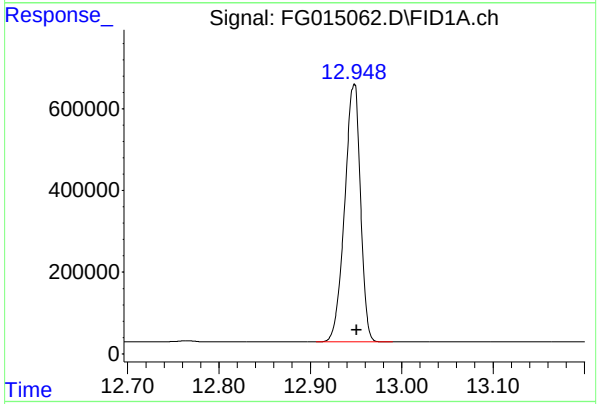
R.T.: 10.181 min
Delta R.T.: -0.003 min
Response: 7292547
Conc: 51.68 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



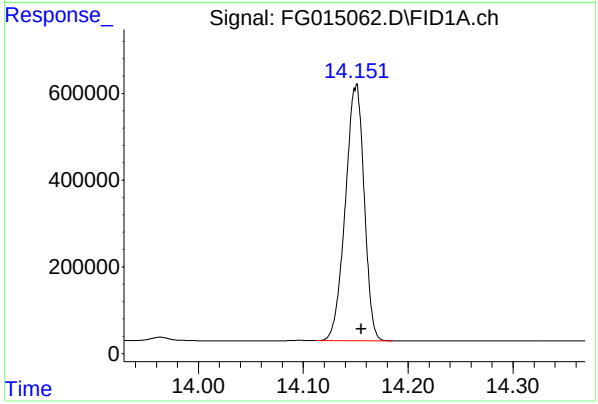
#6 N-OCTADECANE

R.T.: 11.631 min
Delta R.T.: -0.004 min
Response: 7485788
Conc: 51.03 ug/ml



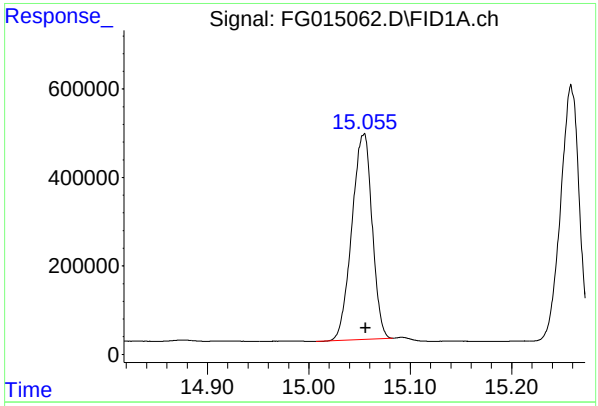
#7 N-EICOSANE

R.T.: 12.948 min
Delta R.T.: -0.003 min
Response: 7583215
Conc: 52.16 ug/ml



#8 N-DOCOSANE

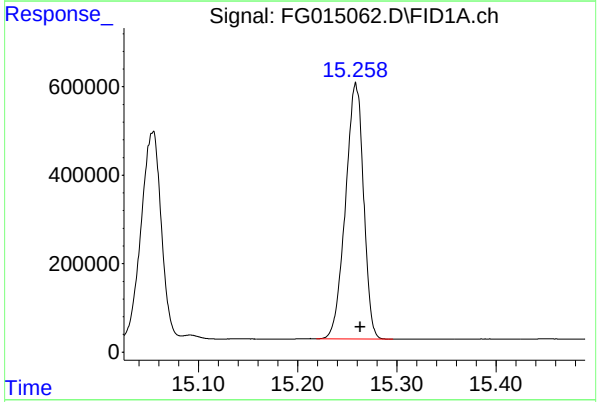
R.T.: 14.150 min
Delta R.T.: -0.005 min
Response: 7362758
Conc: 51.32 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

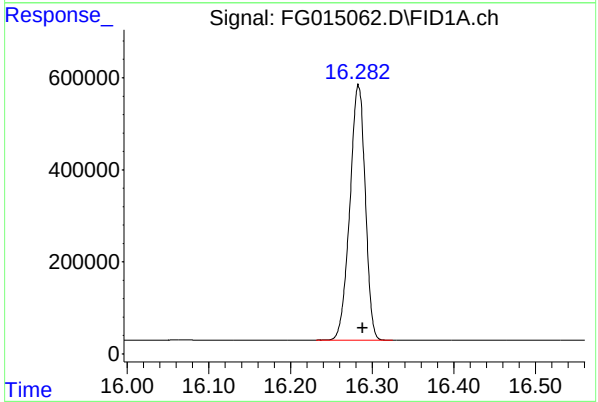
R.T.: 15.054 min
Delta R.T.: -0.002 min
Response: 6435456
Conc: 50.17 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



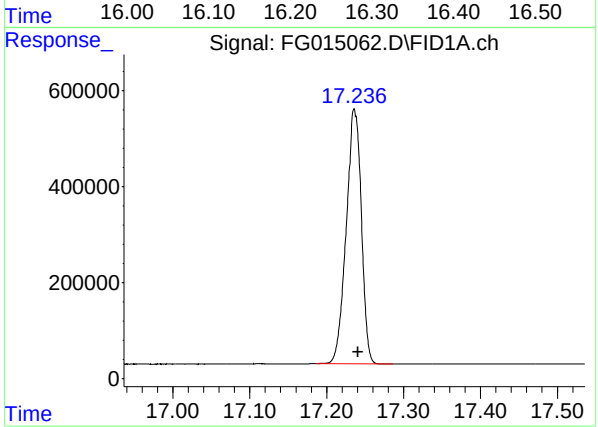
#10 N-TETRACOSANE

R.T.: 15.259 min
Delta R.T.: -0.005 min
Response: 7320313
Conc: 51.25 ug/ml



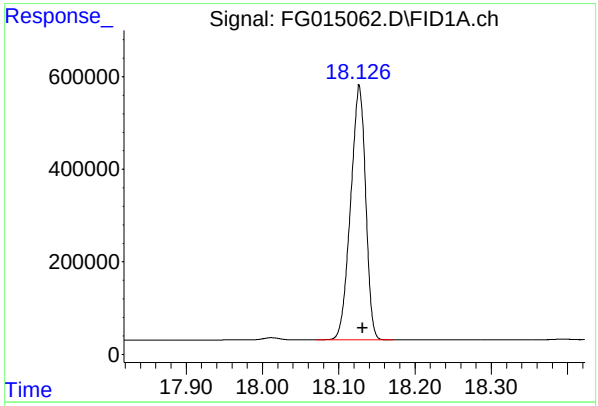
#11 N-HEXACOSANE

R.T.: 16.283 min
Delta R.T.: -0.005 min
Response: 7276923
Conc: 51.67 ug/ml



#12 N-OCTACOSANE

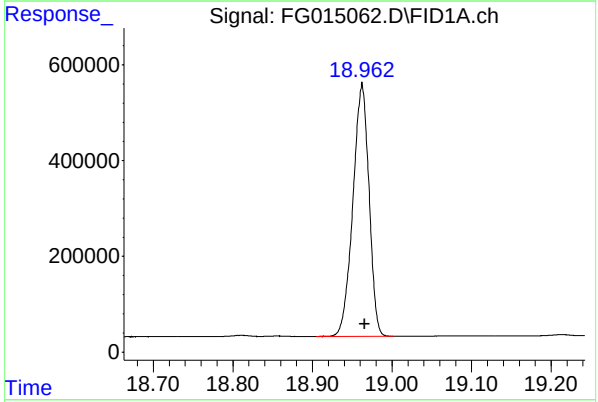
R.T.: 17.236 min
Delta R.T.: -0.005 min
Response: 7251213
Conc: 51.78 ug/ml



#13 N-TRIACONTANE

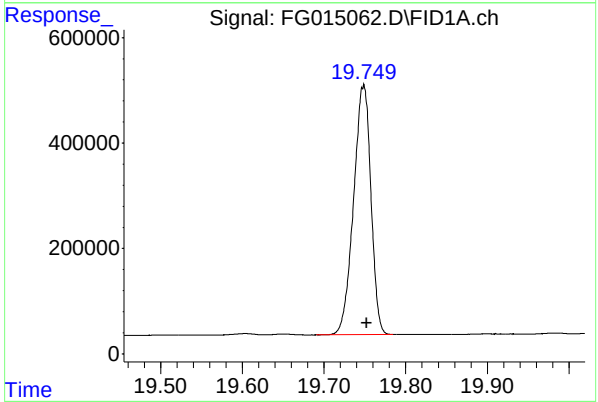
R.T.: 18.127 min
Delta R.T.: -0.005 min
Response: 7526376
Conc: 52.90 ug/ml

Instrument :
FID_G
ClientSampleId :
FG011325ICV



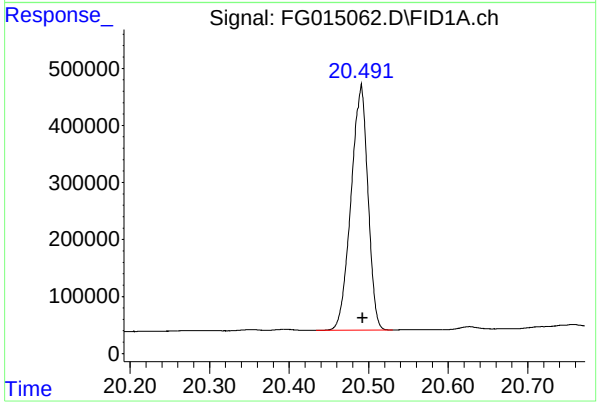
#14 N-DOTRIACONTANE

R.T.: 18.962 min
Delta R.T.: -0.003 min
Response: 7422331
Conc: 53.40 ug/ml



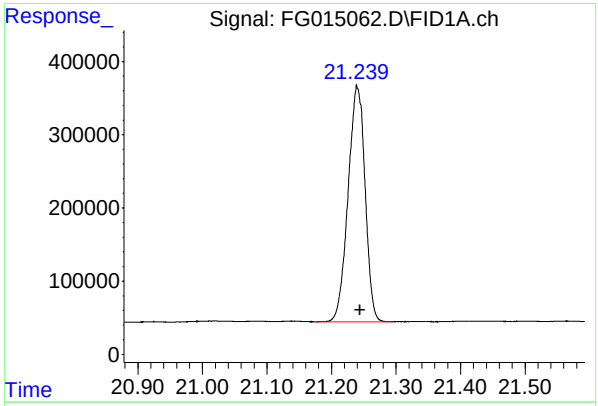
#15 N-TETRATRIACONTANE

R.T.: 19.748 min
Delta R.T.: -0.004 min
Response: 6986454
Conc: 55.76 ug/ml



#16 N-HEXATRIACONTANE

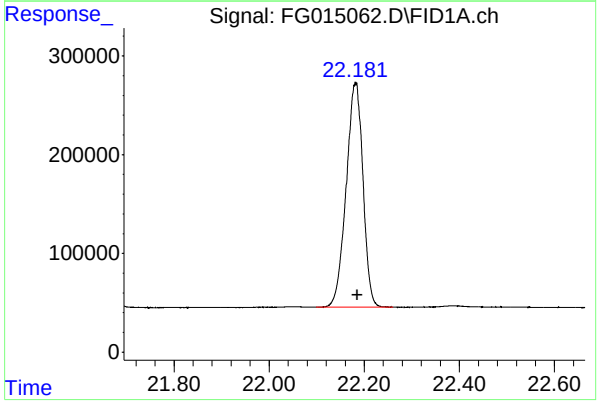
R.T.: 20.491 min
Delta R.T.: -0.001 min
Response: 6347544
Conc: 58.74 ug/ml



#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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FG015247.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	69869948	139740	140262	0.372

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FG015259.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	70508145	141016	140262	0.538

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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.: Q1216 SAS No.: Q1216 SDG No.: Q1216

DataFile: FG015270.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	70647067	141294	140262	0.736

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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 **15.0514**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	30 Jan 2025 10:25	FG015246.D	15.042	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 10:54	FG015247.D	15.044	
PB166361BS	PB166361BS	30 Jan 2025 12:28	FG015249.D	15.043	
PB166361BL	PB166361BL	30 Jan 2025 12:56	FG015250.D	15.040	
PIBLK02	I.BLK02	30 Jan 2025 16:44	FG015258.D	15.054	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 17:12	FG015259.D	15.056	
JPP-29.1-012825MS	Q1215-01MS	30 Jan 2025 18:09	FG015260.D	15.003	
JPP-29.1-012825MSD	Q1215-01MSD	30 Jan 2025 18:37	FG015261.D	15.002	
JPP-18.1-012825	Q1216-01	30 Jan 2025 20:02	FG015264.D	15.048	
JPP-21.1-012825	Q1216-05	30 Jan 2025 20:31	FG015265.D	15.049	
JPP-21.2-012825	Q1216-09	30 Jan 2025 21:00	FG015266.D	15.050	
JPP-26.1-012825	Q1216-13	30 Jan 2025 21:28	FG015267.D	15.053	
JPP-26.2-012825	Q1216-17	30 Jan 2025 21:56	FG015268.D	15.048	
PIBLK03	I.BLK03	30 Jan 2025 22:25	FG015269.D	15.051	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 23:22	FG015270.D	15.052	

 # 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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1216 **Order ID:** Q1216

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-18.1-012825								
Q1216-03	JPP-18.1-012825	SOIL	Aluminum	5160		2.86	5.94	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Antimony	0.72	J	0.18	2.97	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Arsenic	6.99		0.35	1.19	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Barium	80.5		0.76	5.94	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Beryllium	0.39		0.014	0.36	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Cadmium	0.17	J	0.019	0.36	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Calcium	48300		3.33	119	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Chromium	17.4		0.064	0.59	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Cobalt	6.13		0.069	1.78	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Copper	68.6		0.56	1.19	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Iron	12700		3.20	5.94	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Lead	298		0.18	0.71	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Magnesium	8860		4.08	119	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Manganese	195		0.084	1.19	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Mercury	0.49		0.0070	0.015	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Nickel	18.3		0.11	2.38	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Potassium	1400		34.1	119	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Silver	0.37	J	0.062	0.59	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Sodium	7210		42.9	119	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Vanadium	17.2		0.32	2.38	mg/Kg
Q1216-03	JPP-18.1-012825	SOIL	Zinc	120		0.13	2.38	mg/Kg
Client ID : JPP-21.1-012825								
Q1216-07	JPP-21.1-012825	SOIL	Aluminum	3520		2.24	4.65	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Antimony	0.47	J	0.14	2.32	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Arsenic	5.24		0.27	0.93	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Barium	69.7		0.60	4.65	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Beryllium	0.29		0.011	0.28	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Cadmium	0.19	J	0.015	0.28	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Calcium	48300		2.60	93.0	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Chromium	18.6		0.050	0.47	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Cobalt	4.70		0.054	1.39	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Copper	41.0		0.44	0.93	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Iron	9070		2.50	4.65	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Lead	180		0.14	0.56	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Magnesium	4620		3.19	93.0	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Manganese	132		0.066	0.93	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Mercury	0.31		0.0060	0.014	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1216 **Order ID:** Q1216

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1216-07	JPP-21.1-012825	SOIL	Nickel	20.6		0.084	1.86	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Potassium	916		26.7	93.0	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Silver	0.20	J	0.048	0.47	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Sodium	2410		33.6	93.0	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Vanadium	11.8		0.25	1.86	mg/Kg
Q1216-07	JPP-21.1-012825	SOIL	Zinc	133		0.10	1.86	mg/Kg
Client ID :	**JPP-21.2-012825**							
Q1216-11	JPP-21.2-012825	SOIL	Aluminum	4920		2.72	5.65	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Antimony	0.22	J	0.17	2.82	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Arsenic	4.57		0.33	1.13	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Barium	50.1		0.72	5.65	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Beryllium	0.43		0.014	0.34	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Cadmium	0.11	J	0.018	0.34	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Calcium	23300		3.16	113	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Chromium	15.2		0.061	0.56	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Cobalt	4.69		0.066	1.69	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Copper	56.4		0.53	1.13	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Iron	11700		3.04	5.65	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Lead	134		0.17	0.68	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Magnesium	7990		3.88	113	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Manganese	160		0.080	1.13	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Mercury	0.28		0.0070	0.017	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Nickel	15.6		0.10	2.26	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Potassium	1190		32.4	113	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Silver	0.27	J	0.059	0.56	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Sodium	2830		40.8	113	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Vanadium	17.5		0.31	2.26	mg/Kg
Q1216-11	JPP-21.2-012825	SOIL	Zinc	111		0.12	2.26	mg/Kg
Client ID :	**JPP-26.1-012825**							
Q1216-15	JPP-26.1-012825	SOIL	Aluminum	2940		2.77	5.75	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Antimony	1.45	J	0.17	2.88	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Arsenic	8.64		0.33	1.15	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Barium	69.4		0.74	5.75	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Beryllium	0.38		0.014	0.35	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Calcium	8230		3.22	115	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Chromium	9.13		0.062	0.57	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Cobalt	4.24		0.067	1.73	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Copper	65.4		0.54	1.15	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Iron	10000		3.09	5.75	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1216 **Order ID:** Q1216

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1216-15	JPP-26.1-012825	SOIL	Lead	191		0.17	0.69	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Magnesium	2840		3.95	115	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Manganese	115		0.082	1.15	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Mercury	0.50		0.0070	0.016	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Nickel	13.9		0.10	2.30	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Potassium	823		33.0	115	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Silver	0.29	J	0.060	0.57	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Sodium	2690		41.5	115	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Vanadium	12.2		0.31	2.30	mg/Kg
Q1216-15	JPP-26.1-012825	SOIL	Zinc	102		0.13	2.30	mg/Kg
Client ID : JPP-26.2-012825								
Q1216-19	JPP-26.2-012825	SOIL	Aluminum	5550		2.54	5.27	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Antimony	0.95	J	0.16	2.64	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Arsenic	5.77		0.31	1.05	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Barium	64.6		0.68	5.27	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Beryllium	0.43		0.013	0.32	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Cadmium	0.29	J	0.017	0.32	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Calcium	41200		2.95	105	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Chromium	16.4		0.057	0.53	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Cobalt	5.99		0.061	1.58	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Copper	60.2		0.50	1.05	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Iron	12400		2.84	5.27	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Lead	208		0.16	0.63	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Magnesium	6960		3.62	105	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Manganese	231		0.075	1.05	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Mercury	1.72	D	0.033	0.076	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Nickel	17.4		0.095	2.11	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Potassium	1460		30.3	105	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Silver	0.25	J	0.055	0.53	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Sodium	3120		38.1	105	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Vanadium	17.8		0.28	2.11	mg/Kg
Q1216-19	JPP-26.2-012825	SOIL	Zinc	199		0.12	2.11	mg/Kg

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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	83.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5160		1	2.86	5.94	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-36-0	Antimony	0.72	JN	1	0.18	2.97	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-38-2	Arsenic	6.99		1	0.35	1.19	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-39-3	Barium	80.5	N	1	0.76	5.94	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-41-7	Beryllium	0.39		1	0.014	0.36	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-43-9	Cadmium	0.17	J	1	0.019	0.36	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-70-2	Calcium	48300		1	3.33	119	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-47-3	Chromium	17.4	N	1	0.064	0.59	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-48-4	Cobalt	6.13	N	1	0.069	1.78	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-50-8	Copper	68.6	N	1	0.56	1.19	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7439-89-6	Iron	12700		1	3.20	5.94	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7439-92-1	Lead	298		1	0.18	0.71	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7439-95-4	Magnesium	8860		1	4.08	119	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7439-96-5	Manganese	195		1	0.084	1.19	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7439-97-6	Mercury	0.49		1	0.0070	0.015	mg/Kg	01/30/25 16:50	01/31/25 13:35	SW7471B	
7440-02-0	Nickel	18.3		1	0.11	2.38	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-09-7	Potassium	1400	N	1	34.1	119	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7782-49-2	Selenium	1.19	U	1	0.39	1.19	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-22-4	Silver	0.37	J	1	0.062	0.59	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-23-5	Sodium	7210	N	1	42.9	119	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-28-0	Thallium	2.38	U	1	0.52	2.38	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-62-2	Vanadium	17.2	N	1	0.32	2.38	mg/Kg	01/30/25 10:15	01/30/25 16:41	SW6010	SW3050
7440-66-6	Zinc	120	N	1	0.13	2.38	mg/Kg	01/30/25 10:15	01/30/25 16:41	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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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-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3520		1	2.24	4.65	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-36-0	Antimony	0.47	JN	1	0.14	2.32	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-38-2	Arsenic	5.24		1	0.27	0.93	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-39-3	Barium	69.7	N	1	0.60	4.65	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-41-7	Beryllium	0.29		1	0.011	0.28	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-43-9	Cadmium	0.19	J	1	0.015	0.28	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-70-2	Calcium	48300		1	2.60	93.0	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-47-3	Chromium	18.6	N	1	0.050	0.47	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-48-4	Cobalt	4.70	N	1	0.054	1.39	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-50-8	Copper	41.0	N	1	0.44	0.93	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7439-89-6	Iron	9070		1	2.50	4.65	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7439-92-1	Lead	180		1	0.14	0.56	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7439-95-4	Magnesium	4620		1	3.19	93.0	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7439-96-5	Manganese	132		1	0.066	0.93	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7439-97-6	Mercury	0.31		1	0.0060	0.014	mg/Kg	01/30/25 16:50	01/31/25 13:38	SW7471B	
7440-02-0	Nickel	20.6		1	0.084	1.86	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-09-7	Potassium	916	N	1	26.7	93.0	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7782-49-2	Selenium	0.93	U	1	0.31	0.93	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-22-4	Silver	0.20	J	1	0.048	0.47	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-23-5	Sodium	2410	N	1	33.6	93.0	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-28-0	Thallium	1.86	U	1	0.41	1.86	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-62-2	Vanadium	11.8	N	1	0.25	1.86	mg/Kg	01/30/25 10:15	01/30/25 16:45	SW6010	SW3050
7440-66-6	Zinc	133	N	1	0.10	1.86	mg/Kg	01/30/25 10:15	01/30/25 16:45	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
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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
Level (low/med):	low	% Solid:	84.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4920		1	2.72	5.65	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-36-0	Antimony	0.22	JN	1	0.17	2.82	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-38-2	Arsenic	4.57		1	0.33	1.13	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-39-3	Barium	50.1	N	1	0.72	5.65	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-41-7	Beryllium	0.43		1	0.014	0.34	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-43-9	Cadmium	0.11	J	1	0.018	0.34	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-70-2	Calcium	23300		1	3.16	113	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-47-3	Chromium	15.2	N	1	0.061	0.56	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-48-4	Cobalt	4.69	N	1	0.066	1.69	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-50-8	Copper	56.4	N	1	0.53	1.13	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7439-89-6	Iron	11700		1	3.04	5.65	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7439-92-1	Lead	134		1	0.17	0.68	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7439-95-4	Magnesium	7990		1	3.88	113	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7439-96-5	Manganese	160		1	0.080	1.13	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7439-97-6	Mercury	0.28		1	0.0070	0.017	mg/Kg	01/30/25 16:50	01/31/25 13:40	SW7471B	
7440-02-0	Nickel	15.6		1	0.10	2.26	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-09-7	Potassium	1190	N	1	32.4	113	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7782-49-2	Selenium	1.13	U	1	0.37	1.13	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-22-4	Silver	0.27	J	1	0.059	0.56	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-23-5	Sodium	2830	N	1	40.8	113	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-28-0	Thallium	2.26	U	1	0.50	2.26	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-62-2	Vanadium	17.5	N	1	0.31	2.26	mg/Kg	01/30/25 10:15	01/30/25 16:49	SW6010	SW3050
7440-66-6	Zinc	111	N	1	0.12	2.26	mg/Kg	01/30/25 10:15	01/30/25 16:49	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
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Q = indicates LCS control criteria did not meet requirements

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N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
Level (low/med):	low	% Solid:	82.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2940		1	2.77	5.75	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-36-0	Antimony	1.45	JN	1	0.17	2.88	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-38-2	Arsenic	8.64		1	0.33	1.15	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-39-3	Barium	69.4	N	1	0.74	5.75	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-41-7	Beryllium	0.38		1	0.014	0.35	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-43-9	Cadmium	0.35	U	1	0.018	0.35	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-70-2	Calcium	8230		1	3.22	115	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-47-3	Chromium	9.13	N	1	0.062	0.57	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-48-4	Cobalt	4.24	N	1	0.067	1.73	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-50-8	Copper	65.4	N	1	0.54	1.15	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7439-89-6	Iron	10000		1	3.09	5.75	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7439-92-1	Lead	191		1	0.17	0.69	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7439-95-4	Magnesium	2840		1	3.95	115	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7439-96-5	Manganese	115		1	0.082	1.15	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7439-97-6	Mercury	0.50		1	0.0070	0.016	mg/Kg	01/30/25 16:50	01/31/25 13:42	SW7471B	
7440-02-0	Nickel	13.9		1	0.10	2.30	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-09-7	Potassium	823	N	1	33.0	115	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7782-49-2	Selenium	1.15	U	1	0.38	1.15	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-22-4	Silver	0.29	J	1	0.060	0.57	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-23-5	Sodium	2690	N	1	41.5	115	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-28-0	Thallium	2.30	U	1	0.51	2.30	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-62-2	Vanadium	12.2	N	1	0.31	2.30	mg/Kg	01/30/25 10:15	01/30/25 16:54	SW6010	SW3050
7440-66-6	Zinc	102	N	1	0.13	2.30	mg/Kg	01/30/25 10:15	01/30/25 16:54	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
Level (low/med):	low	% Solid:	85.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5550		1	2.54	5.27	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-36-0	Antimony	0.95	JN	1	0.16	2.64	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-38-2	Arsenic	5.77		1	0.31	1.05	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-39-3	Barium	64.6	N	1	0.68	5.27	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-41-7	Beryllium	0.43		1	0.013	0.32	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-43-9	Cadmium	0.29	J	1	0.017	0.32	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-70-2	Calcium	41200		1	2.95	105	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-47-3	Chromium	16.4	N	1	0.057	0.53	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-48-4	Cobalt	5.99	N	1	0.061	1.58	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-50-8	Copper	60.2	N	1	0.50	1.05	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7439-89-6	Iron	12400		1	2.84	5.27	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7439-92-1	Lead	208		1	0.16	0.63	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7439-95-4	Magnesium	6960		1	3.62	105	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7439-96-5	Manganese	231		1	0.075	1.05	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7439-97-6	Mercury	1.72	D	5	0.033	0.076	mg/Kg	01/30/25 16:50	01/31/25 14:47	SW7471B	
7440-02-0	Nickel	17.4		1	0.095	2.11	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-09-7	Potassium	1460	N	1	30.3	105	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7782-49-2	Selenium	1.05	U	1	0.35	1.05	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-22-4	Silver	0.25	J	1	0.055	0.53	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-23-5	Sodium	3120	N	1	38.1	105	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-28-0	Thallium	2.11	U	1	0.46	2.11	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-62-2	Vanadium	17.8	N	1	0.28	2.11	mg/Kg	01/30/25 10:15	01/30/25 16:58	SW6010	SW3050
7440-66-6	Zinc	199	N	1	0.12	2.11	mg/Kg	01/30/25 10:15	01/30/25 16:58	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

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	2350	2500	94	90 - 110	P	01/30/2025	11:49	LB134493
	Antimony	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Arsenic	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Barium	470	520	90	90 - 110	P	01/30/2025	11:49	LB134493
	Beryllium	472	510	92	90 - 110	P	01/30/2025	11:49	LB134493
	Cadmium	502	510	98	90 - 110	P	01/30/2025	11:49	LB134493
	Calcium	9280	10000	93	90 - 110	P	01/30/2025	11:49	LB134493
	Chromium	522	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Cobalt	504	520	97	90 - 110	P	01/30/2025	11:49	LB134493
	Copper	523	510	103	90 - 110	P	01/30/2025	11:49	LB134493
	Iron	9560	10000	96	90 - 110	P	01/30/2025	11:49	LB134493
	Lead	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Magnesium	5450	6000	91	90 - 110	P	01/30/2025	11:49	LB134493
	Manganese	519	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Nickel	507	530	96	90 - 110	P	01/30/2025	11:49	LB134493
	Potassium	9440	9900	95	90 - 110	P	01/30/2025	11:49	LB134493
	Selenium	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Silver	252	250	101	90 - 110	P	01/30/2025	11:49	LB134493
	Sodium	9500	10000	95	90 - 110	P	01/30/2025	11:49	LB134493
	Thallium	1020	1000	102	90 - 110	P	01/30/2025	11:49	LB134493
	Vanadium	455	500	91	90 - 110	P	01/30/2025	11:49	LB134493
	Zinc	1010	1000	101	90 - 110	P	01/30/2025	11:49	LB134493

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	89.2	100	89	80 - 120	P	01/30/2025	11:56	LB134493
	Antimony	49.5	50.0	99	80 - 120	P	01/30/2025	11:56	LB134493
	Arsenic	21.3	20.0	107	80 - 120	P	01/30/2025	11:56	LB134493
	Barium	83.9	100	84	80 - 120	P	01/30/2025	11:56	LB134493
	Beryllium	5.55	6.0	92	80 - 120	P	01/30/2025	11:56	LB134493
	Cadmium	5.60	6.0	93	80 - 120	P	01/30/2025	11:56	LB134493
	Calcium	1830	2000	92	80 - 120	P	01/30/2025	11:56	LB134493
	Chromium	9.80	10.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Cobalt	28.7	30.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Copper	21.6	20.0	108	80 - 120	P	01/30/2025	11:56	LB134493
	Iron	106	100	106	80 - 120	P	01/30/2025	11:56	LB134493
	Lead	12.2	12.0	102	80 - 120	P	01/30/2025	11:56	LB134493
	Magnesium	1970	2000	99	80 - 120	P	01/30/2025	11:56	LB134493
	Manganese	18.0	20.0	90	80 - 120	P	01/30/2025	11:56	LB134493
	Nickel	38.6	40.0	97	80 - 120	P	01/30/2025	11:56	LB134493
	Potassium	1920	2000	96	80 - 120	P	01/30/2025	11:56	LB134493
	Selenium	19.1	20.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Silver	10.4	10.0	104	80 - 120	P	01/30/2025	11:56	LB134493
	Sodium	1920	2000	96	80 - 120	P	01/30/2025	11:56	LB134493
	Thallium	39.0	40.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Vanadium	34.8	40.0	87	80 - 120	P	01/30/2025	11:56	LB134493
	Zinc	38.3	40.0	96	80 - 120	P	01/30/2025	11:56	LB134493

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	01/30/2025	12:41	LB134493
	Antimony	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Arsenic	4950	5000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Barium	9130	10000	91	90 - 110	P	01/30/2025	12:41	LB134493
	Beryllium	237	250	95	90 - 110	P	01/30/2025	12:41	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Calcium	23200	25000	93	90 - 110	P	01/30/2025	12:41	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Cobalt	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	12:41	LB134493
	Iron	4690	5000	94	90 - 110	P	01/30/2025	12:41	LB134493
	Lead	4840	5000	97	90 - 110	P	01/30/2025	12:41	LB134493
	Magnesium	23200	25000	93	90 - 110	P	01/30/2025	12:41	LB134493
	Manganese	2260	2500	90	90 - 110	P	01/30/2025	12:41	LB134493
	Nickel	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Potassium	23700	25000	95	90 - 110	P	01/30/2025	12:41	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	12:41	LB134493
	Sodium	24100	25000	96	90 - 110	P	01/30/2025	12:41	LB134493
	Thallium	5080	5000	102	90 - 110	P	01/30/2025	12:41	LB134493
	Vanadium	2350	2500	94	90 - 110	P	01/30/2025	12:41	LB134493
	Zinc	2460	2500	98	90 - 110	P	01/30/2025	12:41	LB134493
CCV02	Aluminum	9600	10000	96	90 - 110	P	01/30/2025	13:33	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Barium	9200	10000	92	90 - 110	P	01/30/2025	13:33	LB134493
	Beryllium	232	250	93	90 - 110	P	01/30/2025	13:33	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Calcium	23300	25000	93	90 - 110	P	01/30/2025	13:33	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	13:33	LB134493
	Cobalt	2410	2500	96	90 - 110	P	01/30/2025	13:33	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	13:33	LB134493
	Iron	4770	5000	96	90 - 110	P	01/30/2025	13:33	LB134493
	Lead	4830	5000	97	90 - 110	P	01/30/2025	13:33	LB134493

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	23300	25000	93	90 - 110	P	01/30/2025	13:33	LB134493
	Manganese	2250	2500	90	90 - 110	P	01/30/2025	13:33	LB134493
	Nickel	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Potassium	24400	25000	97	90 - 110	P	01/30/2025	13:33	LB134493
	Selenium	5050	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Silver	1200	1250	96	90 - 110	P	01/30/2025	13:33	LB134493
	Sodium	25000	25000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Thallium	5120	5000	102	90 - 110	P	01/30/2025	13:33	LB134493
	Vanadium	2360	2500	94	90 - 110	P	01/30/2025	13:33	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	13:33	LB134493
CCV03	Aluminum	9650	10000	96	90 - 110	P	01/30/2025	14:34	LB134493
	Antimony	4780	5000	96	90 - 110	P	01/30/2025	14:34	LB134493
	Arsenic	4880	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Barium	9430	10000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Beryllium	231	250	92	90 - 110	P	01/30/2025	14:34	LB134493
	Cadmium	2490	2500	100	90 - 110	P	01/30/2025	14:34	LB134493
	Calcium	23500	25000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Chromium	985	1000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Cobalt	2440	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
	Copper	1200	1250	96	90 - 110	P	01/30/2025	14:34	LB134493
	Iron	4870	5000	97	90 - 110	P	01/30/2025	14:34	LB134493
	Lead	4910	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Magnesium	23400	25000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Manganese	2300	2500	92	90 - 110	P	01/30/2025	14:34	LB134493
	Nickel	2450	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
	Potassium	24900	25000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	14:34	LB134493
	Sodium	25200	25000	101	90 - 110	P	01/30/2025	14:34	LB134493
	Thallium	5070	5000	102	90 - 110	P	01/30/2025	14:34	LB134493
	Vanadium	2380	2500	95	90 - 110	P	01/30/2025	14:34	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
CCV04	Aluminum	9670	10000	97	90 - 110	P	01/30/2025	15:25	LB134493
	Antimony	4980	5000	100	90 - 110	P	01/30/2025	15:25	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	4890	5000	98	90 - 110	P	01/30/2025	15:25	LB134493
	Barium	9350	10000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Beryllium	231	250	92	90 - 110	P	01/30/2025	15:25	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Calcium	23400	25000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Chromium	1000	1000	100	90 - 110	P	01/30/2025	15:25	LB134493
	Cobalt	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Copper	1230	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
	Iron	4940	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Lead	4750	5000	95	90 - 110	P	01/30/2025	15:25	LB134493
	Magnesium	23400	25000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Manganese	2280	2500	91	90 - 110	P	01/30/2025	15:25	LB134493
	Nickel	2380	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Potassium	25200	25000	101	90 - 110	P	01/30/2025	15:25	LB134493
	Selenium	4950	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Silver	1220	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
	Sodium	25700	25000	103	90 - 110	P	01/30/2025	15:25	LB134493
	Thallium	5090	5000	102	90 - 110	P	01/30/2025	15:25	LB134493
	Vanadium	2390	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Zinc	2480	2500	99	90 - 110	P	01/30/2025	15:25	LB134493
CCV05	Aluminum	9750	10000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Antimony	4910	5000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Arsenic	4830	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Barium	9330	10000	93	90 - 110	P	01/30/2025	16:24	LB134493
	Beryllium	234	250	94	90 - 110	P	01/30/2025	16:24	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Calcium	23700	25000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Chromium	991	1000	99	90 - 110	P	01/30/2025	16:24	LB134493
	Cobalt	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Copper	1220	1250	98	90 - 110	P	01/30/2025	16:24	LB134493
	Iron	4830	5000	96	90 - 110	P	01/30/2025	16:24	LB134493
	Lead	4740	5000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Manganese	2310	2500	92	90 - 110	P	01/30/2025	16:24	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	01/30/2025	16:24	LB134493
	Potassium	24500	25000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Selenium	4860	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	16:24	LB134493
	Sodium	24900	25000	100	90 - 110	P	01/30/2025	16:24	LB134493
	Thallium	4980	5000	100	90 - 110	P	01/30/2025	16:24	LB134493
	Vanadium	2410	2500	96	90 - 110	P	01/30/2025	16:24	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	16:24	LB134493
CCV06	Aluminum	9690	10000	97	90 - 110	P	01/30/2025	17:19	LB134493
	Antimony	5050	5000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	17:19	LB134493
	Barium	9260	10000	93	90 - 110	P	01/30/2025	17:19	LB134493
	Beryllium	235	250	94	90 - 110	P	01/30/2025	17:19	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Calcium	23500	25000	94	90 - 110	P	01/30/2025	17:19	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Cobalt	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Copper	1260	1250	100	90 - 110	P	01/30/2025	17:19	LB134493
	Iron	4800	5000	96	90 - 110	P	01/30/2025	17:19	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	17:19	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	17:19	LB134493
	Manganese	2290	2500	92	90 - 110	P	01/30/2025	17:19	LB134493
	Nickel	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Potassium	24300	25000	97	90 - 110	P	01/30/2025	17:19	LB134493
	Selenium	4970	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Silver	1230	1250	99	90 - 110	P	01/30/2025	17:19	LB134493
	Sodium	24900	25000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Thallium	5010	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Vanadium	2380	2500	95	90 - 110	P	01/30/2025	17:19	LB134493
	Zinc	2470	2500	99	90 - 110	P	01/30/2025	17:19	LB134493
CCV07	Aluminum	9880	10000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Barium	9620	10000	96	90 - 110	P	01/30/2025	18:11	LB134493

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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
CCV07	Beryllium	237	250	95	90 - 110	P	01/30/2025	18:11	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Calcium	24100	25000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Chromium	1020	1000	102	90 - 110	P	01/30/2025	18:11	LB134493
	Cobalt	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	18:11	LB134493
	Iron	5050	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	18:11	LB134493
	Magnesium	24100	25000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Manganese	2360	2500	94	90 - 110	P	01/30/2025	18:11	LB134493
	Nickel	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Potassium	25700	25000	103	90 - 110	P	01/30/2025	18:11	LB134493
	Selenium	5000	5000	100	90 - 110	P	01/30/2025	18:11	LB134493
	Silver	1270	1250	101	90 - 110	P	01/30/2025	18:11	LB134493
	Sodium	26300	25000	105	90 - 110	P	01/30/2025	18:11	LB134493
	Thallium	5060	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Vanadium	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Zinc	2520	2500	101	90 - 110	P	01/30/2025	18:11	LB134493
CCV08	Aluminum	9710	10000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	18:45	LB134493
	Barium	9470	10000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Beryllium	234	250	94	90 - 110	P	01/30/2025	18:45	LB134493
	Cadmium	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Calcium	23600	25000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Cobalt	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493
	Iron	4940	5000	99	90 - 110	P	01/30/2025	18:45	LB134493
	Lead	4860	5000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Manganese	2310	2500	92	90 - 110	P	01/30/2025	18:45	LB134493
	Nickel	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Potassium	25100	25000	100	90 - 110	P	01/30/2025	18:45	LB134493

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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
CCV08	Selenium	5030	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Silver	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493
	Sodium	25600	25000	102	90 - 110	P	01/30/2025	18:45	LB134493
	Thallium	5060	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Vanadium	2410	2500	96	90 - 110	P	01/30/2025	18:45	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	18:45	LB134493

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	84.9	100	85	40 - 160	P	01/30/2025	12:05	LB134493
	Antimony	47.1	50.0	94	40 - 160	P	01/30/2025	12:05	LB134493
	Arsenic	21.5	20.0	107	40 - 160	P	01/30/2025	12:05	LB134493
	Barium	90.1	100	90	40 - 160	P	01/30/2025	12:05	LB134493
	Beryllium	5.61	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Cadmium	5.56	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Calcium	1880	2000	94	40 - 160	P	01/30/2025	12:05	LB134493
	Chromium	9.97	10.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Cobalt	28.5	30.0	95	40 - 160	P	01/30/2025	12:05	LB134493
	Copper	21.8	20.0	109	40 - 160	P	01/30/2025	12:05	LB134493
	Iron	81.5	100	82	40 - 160	P	01/30/2025	12:05	LB134493
	Lead	10.9	12.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Magnesium	2010	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Manganese	18.2	20.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Nickel	38.1	40.0	95	40 - 160	P	01/30/2025	12:05	LB134493
	Potassium	2030	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Selenium	18.4	20.0	92	40 - 160	P	01/30/2025	12:05	LB134493
	Silver	11.1	10.0	111	40 - 160	P	01/30/2025	12:05	LB134493
	Sodium	2020	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Thallium	40.0	40.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Vanadium	34.7	40.0	87	40 - 160	P	01/30/2025	12:05	LB134493
	Zinc	39.3	40.0	98	40 - 160	P	01/30/2025	12:05	LB134493
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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	01/30/2025	12:00	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	12:00	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	12:00	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:00	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	01/30/2025	12:47	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	12:47	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	12:47	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:47	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
CCB02	Aluminum	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	13:37	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	13:37	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	13:37	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	01/30/2025	13:37	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
CCB03	Aluminum	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	14:38	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	14:38	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	14:38	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
CCB04	Aluminum	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	15:29	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	15:29	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	15:29	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	01/30/2025	15:29	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
CCB05	Aluminum	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	16:28	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	16:28	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	16:28	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
CCB06	Aluminum	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	17:24	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	17:24	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	17:24	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
CCB07	Aluminum	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	18:15	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	18:15	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:15	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
CCB08	Aluminum	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	18:51	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	18:51	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:51	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493

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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

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.:** Q1216

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166376BL		**SOLID**		**Batch Number:**	**PB166376**		**Prep Date:**	**01/30/2025**	
	Aluminum	4.72	<4.72	U	4.72	P	01/30/2025	16:32	LB134493
	Antimony	2.36	<2.36	U	2.36	P	01/30/2025	16:32	LB134493
	Arsenic	0.94	<0.94	U	0.94	P	01/30/2025	16:32	LB134493
	Barium	4.72	<4.72	U	4.72	P	01/30/2025	16:32	LB134493
	Beryllium	0.28	<0.28	U	0.28	P	01/30/2025	16:32	LB134493
	Cadmium	0.28	<0.28	U	0.28	P	01/30/2025	16:32	LB134493
	Calcium	94.3	<94.3	U	94.3	P	01/30/2025	16:32	LB134493
	Chromium	0.47	<0.47	U	0.47	P	01/30/2025	16:32	LB134493
	Cobalt	1.42	<1.42	U	1.42	P	01/30/2025	16:32	LB134493
	Copper	0.94	<0.94	U	0.94	P	01/30/2025	16:32	LB134493
	Iron	4.72	<4.72	U	4.72	P	01/30/2025	16:32	LB134493
	Lead	0.57	<0.57	U	0.57	P	01/30/2025	16:32	LB134493
	Magnesium	94.3	<94.3	U	94.3	P	01/30/2025	16:32	LB134493
	Manganese	0.94	<0.94	U	0.94	P	01/30/2025	16:32	LB134493
	Nickel	1.89	<1.89	U	1.89	P	01/30/2025	16:32	LB134493
	Potassium	94.3	<94.3	U	94.3	P	01/30/2025	16:32	LB134493
	Selenium	0.94	<0.94	U	0.94	P	01/30/2025	16:32	LB134493
	Silver	0.47	<0.47	U	0.47	P	01/30/2025	16:32	LB134493
	Sodium	94.3	<94.3	U	94.3	P	01/30/2025	16:32	LB134493
	Thallium	1.89	<1.89	U	1.89	P	01/30/2025	16:32	LB134493
	Vanadium	1.89	<1.89	U	1.89	P	01/30/2025	16:32	LB134493
	Zinc	1.89	<1.89	U	1.89	P	01/30/2025	16:32	LB134493

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	235000	255000	92	216000	294000	01/30/2025	12:10	LB134493
	Antimony	-3.14			-50	50	01/30/2025	12:10	LB134493
	Arsenic	-3.20			-20	20	01/30/2025	12:10	LB134493
	Barium	1.95	6.0	32	-94	106	01/30/2025	12:10	LB134493
	Beryllium	1.36			-6	6	01/30/2025	12:10	LB134493
	Cadmium	-0.88	1.0	88	-5	7	01/30/2025	12:10	LB134493
	Calcium	218000	245000	89	208000	282000	01/30/2025	12:10	LB134493
	Chromium	56.0	52.0	108	42	62	01/30/2025	12:10	LB134493
	Cobalt	0.92			-30	30	01/30/2025	12:10	LB134493
	Copper	21.7	2.0	1085	-18	22	01/30/2025	12:10	LB134493
	Iron	92700	101000	92	85600	116500	01/30/2025	12:10	LB134493
	Lead	6.67			-12	12	01/30/2025	12:10	LB134493
	Magnesium	234000	255000	92	216000	294000	01/30/2025	12:10	LB134493
	Manganese	3.50	7.0	50	-13	27	01/30/2025	12:10	LB134493
	Nickel	2.07	2.0	104	-38	42	01/30/2025	12:10	LB134493
	Potassium	133			0	0	01/30/2025	12:10	LB134493
	Selenium	-14.4			-20	20	01/30/2025	12:10	LB134493
	Silver	-0.54			-10	10	01/30/2025	12:10	LB134493
	Sodium	23.8			0	0	01/30/2025	12:10	LB134493
	Thallium	11.1			-40	40	01/30/2025	12:10	LB134493
	Vanadium	5.11			-40	40	01/30/2025	12:10	LB134493
	Zinc	1.05			-40	40	01/30/2025	12:10	LB134493
ICSAB01	Aluminum	243000	247000	98	209000	285000	01/30/2025	12:28	LB134493
	Antimony	644	618	104	525	711	01/30/2025	12:28	LB134493
	Arsenic	118	104	114	88.4	120	01/30/2025	12:28	LB134493
	Barium	456	537	85	437	637	01/30/2025	12:28	LB134493
	Beryllium	475	495	96	420	570	01/30/2025	12:28	LB134493
	Cadmium	1020	972	105	826	1120	01/30/2025	12:28	LB134493
	Calcium	224000	235000	95	199000	271000	01/30/2025	12:28	LB134493
	Chromium	583	542	108	460	624	01/30/2025	12:28	LB134493
	Cobalt	514	476	108	404	548	01/30/2025	12:28	LB134493
	Copper	526	511	103	434	588	01/30/2025	12:28	LB134493
	Iron	99900	99300	101	84400	114500	01/30/2025	12:28	LB134493
	Lead	57.1	49.0	116	37	61	01/30/2025	12:28	LB134493
	Magnesium	241000	248000	97	210000	286000	01/30/2025	12:28	LB134493
	Manganese	448	507	88	430	584	01/30/2025	12:28	LB134493
	Nickel	1020	954	107	810	1100	01/30/2025	12:28	LB134493
	Potassium	109			0	0	01/30/2025	12:28	LB134493
	Selenium	36.8	46.0	80	26	66	01/30/2025	12:28	LB134493
	Silver	222	201	110	170	232	01/30/2025	12:28	LB134493
	Sodium	7.13			0	0	01/30/2025	12:28	LB134493
	Thallium	104	108	96	68	148	01/30/2025	12:28	LB134493

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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	463	491	94	417	565	01/30/2025	12:28	LB134493
	Zinc	1080	952	113	809	1095	01/30/2025	12:28	LB134493

METAL QC DATA

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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216

contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216

matrix: Solid **sample id:** Q1221-01 **client id:** CHESTNUT-CONCRETEMS

Percent Solids for Sample: 100 **Spiked ID:** Q1221-01MS **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	6050		3760		93.5	2448		P
Antimony	mg/Kg	75 - 125	16.5		2.28	U	37.4	44	N	P
Arsenic	mg/Kg	75 - 125	44.0		0.84	J	37.4	116		P
Barium	mg/Kg	75 - 125	38.0		17.3		9.3	222	N	P
Beryllium	mg/Kg	75 - 125	8.56		0.21	J	9.3	90		P
Cadmium	mg/Kg	75 - 125	9.30		0.27	U	9.3	100		P
Calcium	mg/Kg	75 - 125	50100		39700		46.7	22209		P
Chromium	mg/Kg	75 - 125	44.4		7.31		18.7	199	N	P
Cobalt	mg/Kg	75 - 125	12.6		0.92	J	9.3	126	N	P
Copper	mg/Kg	75 - 125	19.9		1.90		14.0	129	N	P
Iron	mg/Kg	75 - 125	18000		3860		140	10106		P
Lead	mg/Kg	75 - 125	52.3		1.47		46.7	109		P
Magnesium	mg/Kg	75 - 125	2180		1670		93.5	543		P
Manganese	mg/Kg	75 - 125	123		79.4		9.3	466		P
Nickel	mg/Kg	75 - 125	29.0		2.47		23.4	114		P
Potassium	mg/Kg	75 - 125	1270		380		470	190	N	P
Selenium	mg/Kg	75 - 125	85.4		0.91	U	93.5	91		P
Silver	mg/Kg	75 - 125	3.45		0.051	J	3.5	97		P
Sodium	mg/Kg	75 - 125	401		76.8	J	140	232	N	P
Thallium	mg/Kg	75 - 125	89.7		1.83	U	93.5	96		P
Vanadium	mg/Kg	75 - 125	29.6		6.31		14.0	166	N	P
Zinc	mg/Kg	75 - 125	58.4		5.90		9.3	565	N	P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216

contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216

matrix: Solid **sample id:** Q1221-01 **client id:** CHESTNUT-CONCRETEMSD

Percent Solids for Sample: 100 **Spiked ID:** Q1221-01MSD **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5670		3760		86.2	2222		P
Antimony	mg/Kg	75 - 125	15.1		2.28	U	34.5	44	N	P
Arsenic	mg/Kg	75 - 125	40.1		0.84	J	34.5	114		P
Barium	mg/Kg	75 - 125	36.6		17.3		8.6	224	N	P
Beryllium	mg/Kg	75 - 125	7.94		0.21	J	8.6	90		P
Cadmium	mg/Kg	75 - 125	8.40		0.27	U	8.6	98		P
Calcium	mg/Kg	75 - 125	47800		39700		43.1	18807		P
Chromium	mg/Kg	75 - 125	41.0		7.31		17.2	196	N	P
Cobalt	mg/Kg	75 - 125	11.6		0.92	J	8.6	124		P
Copper	mg/Kg	75 - 125	17.9		1.90		12.9	124		P
Iron	mg/Kg	75 - 125	17200		3860		130	10286		P
Lead	mg/Kg	75 - 125	48.1		1.47		43.1	108		P
Magnesium	mg/Kg	75 - 125	2070		1670		86.2	468		P
Manganese	mg/Kg	75 - 125	118		79.4		8.6	448		P
Nickel	mg/Kg	75 - 125	26.6		2.47		21.6	112		P
Potassium	mg/Kg	75 - 125	1220		380		430	195	N	P
Selenium	mg/Kg	75 - 125	77.7		0.91	U	86.2	90		P
Silver	mg/Kg	75 - 125	3.28		0.051	J	3.2	101		P
Sodium	mg/Kg	75 - 125	382		76.8	J	130	235	N	P
Thallium	mg/Kg	75 - 125	83.2		1.83	U	86.2	96		P
Vanadium	mg/Kg	75 - 125	28.1		6.31		12.9	169	N	P
Zinc	mg/Kg	75 - 125	54.0		5.90		8.6	560	N	P

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metals
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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216

contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216

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
Mercury	mg/Kg	80 - 120	0.55		0.31		0.27	87		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216

contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216

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
Mercury	mg/Kg	80 - 120	0.60		0.31		0.27	106		CV

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Metals
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POST DIGEST SPIKE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

Matrix: Solid **Level:** LOW **Client ID:** CHESTNUT-CONCRETEA

Sample ID: Q1221-01 **Spiked ID:** Q1221-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	15.7		2.28	U	36.5	43		P
Barium	mg/Kg	75 - 125	37.2		17.3		9.10	219		P
Chromium	mg/Kg	75 - 125	43.2		7.31		18.3	196		P
Cobalt	mg/Kg	75 - 125	12.2		0.92	J	9.10	124		P
Copper	mg/Kg	75 - 125	19.1		1.90		13.7	125		P
Potassium	mg/Kg	75 - 125	1260		380		460	191		P
Sodium	mg/Kg	75 - 125	395		76.8	J	140	228		P
Vanadium	mg/Kg	75 - 125	28.9		6.31		13.7	165		P
Zinc	mg/Kg	75 - 125	57.1		5.90		9.10	562		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

Matrix: Solid **Sample ID:** Q1221-01 **Client ID:** CHESTNUT-CONCRETEDUP

Percent Solids for Sample: 100 **Duplicate ID** Q1221-01DUP **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	3760		3500		7		P
Antimony	mg/Kg	20	2.28	U	2.19	U			P
Arsenic	mg/Kg	20	0.84	J	0.73	J	14		P
Barium	mg/Kg	20	17.3		16.4		5		P
Beryllium	mg/Kg	20	0.21	J	0.20	J	7		P
Cadmium	mg/Kg	20	0.27	U	0.26	U			P
Calcium	mg/Kg	20	39700		37100		7		P
Chromium	mg/Kg	20	7.31		6.74		8		P
Cobalt	mg/Kg	20	0.92	J	0.84	J	9		P
Copper	mg/Kg	20	1.90		1.73		9		P
Iron	mg/Kg	20	3860		3640		6		P
Lead	mg/Kg	20	1.47		1.39		6		P
Magnesium	mg/Kg	20	1670		1550		7		P
Manganese	mg/Kg	20	79.4		74.7		6		P
Nickel	mg/Kg	20	2.47		2.29		8		P
Potassium	mg/Kg	20	380		360		5		P
Selenium	mg/Kg	20	0.91	U	0.88	U			P
Silver	mg/Kg	20	0.051	J	0.056	J	9		P
Sodium	mg/Kg	20	76.8	J	71.2	J	8		P
Thallium	mg/Kg	20	1.83	U	1.75	U			P
Vanadium	mg/Kg	20	6.31		5.92		6		P
Zinc	mg/Kg	20	5.90		5.50		7		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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

Matrix: Solid **Sample ID:** Q1221-01MS **Client ID:** CHESTNUT-CONCRETEMSD

Percent Solids for Sample: 100 **Duplicate ID** Q1221-01MSD **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6050		5670		6		P
Antimony	mg/Kg	20	16.5		15.1		9		P
Arsenic	mg/Kg	20	44.0		40.1		9		P
Barium	mg/Kg	20	38.0		36.6		4		P
Beryllium	mg/Kg	20	8.56		7.94		8		P
Cadmium	mg/Kg	20	9.30		8.40		10		P
Calcium	mg/Kg	20	50100		47800		5		P
Chromium	mg/Kg	20	44.4		41.0		8		P
Cobalt	mg/Kg	20	12.6		11.6		8		P
Copper	mg/Kg	20	19.9		17.9		11		P
Iron	mg/Kg	20	18000		17200		5		P
Lead	mg/Kg	20	52.3		48.1		8		P
Magnesium	mg/Kg	20	2180		2070		5		P
Manganese	mg/Kg	20	123		118		4		P
Nickel	mg/Kg	20	29.0		26.6		9		P
Potassium	mg/Kg	20	1270		1220		4		P
Selenium	mg/Kg	20	85.4		77.7		9		P
Silver	mg/Kg	20	3.45		3.28		5		P
Sodium	mg/Kg	20	401		382		5		P
Thallium	mg/Kg	20	89.7		83.2		8		P
Vanadium	mg/Kg	20	29.6		28.1		5		P
Zinc	mg/Kg	20	58.4		54.0		8		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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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
Mercury	mg/Kg	20	0.31		0.32		2		CV

"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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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
Mercury	mg/Kg	20	0.55		0.60		9		CV

"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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166376BS							
Aluminum	mg/Kg	94.3	83.5		88	80 - 120	P
Antimony	mg/Kg	37.7	36.5		97	80 - 120	P
Arsenic	mg/Kg	37.7	37.1		98	80 - 120	P
Barium	mg/Kg	9.4	8.00		85	80 - 120	P
Beryllium	mg/Kg	9.4	8.32		88	80 - 120	P
Cadmium	mg/Kg	9.4	8.79		94	80 - 120	P
Calcium	mg/Kg	47.2	42.5	J	90	80 - 120	P
Chromium	mg/Kg	18.9	18.4		97	80 - 120	P
Cobalt	mg/Kg	9.4	8.80		94	80 - 120	P
Copper	mg/Kg	14.2	14.1		99	80 - 120	P
Iron	mg/Kg	140	134		96	80 - 120	P
Lead	mg/Kg	47.2	44.0		93	80 - 120	P
Magnesium	mg/Kg	94.3	82.1	J	87	80 - 120	P
Manganese	mg/Kg	9.4	8.25		88	80 - 120	P
Nickel	mg/Kg	23.6	22.2		94	80 - 120	P
Potassium	mg/Kg	470	443		94	80 - 120	P
Selenium	mg/Kg	94.3	91.8		97	80 - 120	P
Silver	mg/Kg	3.5	3.32		95	80 - 120	P
Sodium	mg/Kg	140	138		99	80 - 120	P
Thallium	mg/Kg	94.3	92.2		98	80 - 120	P
Vanadium	mg/Kg	14.2	12.6		89	80 - 120	P
Zinc	mg/Kg	9.4	9.04		96	80 - 120	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.

CHESTNUT-CONCRETEL

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134493 **Lab Sample ID :** Q1221-01L **SDG No.:** Q1216

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	3760		3880		3		P
Antimony	2.28	U	11.4	U			P
Arsenic	0.84	J	4.57	U	100.0		P
Barium	17.3		18.4	J	7		P
Beryllium	0.21	J	0.23	J	8		P
Cadmium	0.27	U	1.37	U			P
Calcium	39700		43100		9		P
Chromium	7.31		7.69		5		P
Cobalt	0.92	J	0.87	J	5		P
Copper	1.90		2.16	J	14		P
Iron	3860		4040		5		P
Lead	1.47		1.16	J	22		P
Magnesium	1670		1810		8		P
Manganese	79.4		87.6		10		P
Nickel	2.47		2.41	J	2		P
Potassium	380		371	J	2		P
Selenium	0.91	U	4.57	U			P
Silver	0.051	J	2.28	U	100.0		P
Sodium	76.8	J	457	U	100.0		P
Thallium	1.83	U	9.13	U			P
Vanadium	6.31		6.59	J	4		P
Zinc	5.90		5.33	J	10		P

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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.:** lb134501 **Lab Sample ID :** Q1235-07L **SDG No.:** Q1216

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
Mercury	0.31		0.33		7		CV

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1216 **SAS No.:** Q1216

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166376**						
PB166376BL	PB166376BL	MB	SOLID	01/30/2025	2.12	100.0	100.00
PB166376BS	PB166376BS	LCS	SOLID	01/30/2025	2.12	100.0	100.00
Q1216-03	JPP-18.1-012825	SAM	SOLID	01/30/2025	2.02	100.0	83.30
Q1216-07	JPP-21.1-012825	SAM	SOLID	01/30/2025	2.38	100.0	90.40
Q1216-11	JPP-21.2-012825	SAM	SOLID	01/30/2025	2.10	100.0	84.30
Q1216-15	JPP-26.1-012825	SAM	SOLID	01/30/2025	2.10	100.0	82.80
Q1216-19	JPP-26.2-012825	SAM	SOLID	01/30/2025	2.21	100.0	85.80
Q1221-01DUP	CHESTNUT-CONCRETEDUP	DUP	SOLID	01/30/2025	2.28	100.0	100.00
Q1221-01MS	CHESTNUT-CONCRETEMS	MS	SOLID	01/30/2025	2.14	100.0	100.00
Q1221-01MSD	CHESTNUT-CONCRETEMSD	MSD	SOLID	01/30/2025	2.32	100.0	100.00

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1216 **SAS No.:** Q1216

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
Q1216-03	JPP-18.1-012825	SAM	SOLID	01/30/2025	0.56	35.0	83.30
Q1216-07	JPP-21.1-012825	SAM	SOLID	01/30/2025	0.54	35.0	90.40
Q1216-11	JPP-21.2-012825	SAM	SOLID	01/30/2025	0.50	35.0	84.30
Q1216-15	JPP-26.1-012825	SAM	SOLID	01/30/2025	0.52	35.0	82.80
Q1216-19	JPP-26.2-012825	SAM	SOLID	01/30/2025	0.54	35.0	85.80
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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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1216 **Sas no.:** Q1216 **Sdg no.:** Q1216

Instrument id number: **Method:** **Run number:** LB134493

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1107	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	1112	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	1116	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	1120	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	1125	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	1129	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	1149	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	1156	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	1200	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	1205	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	1210	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	1228	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	1241	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	1247	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	1333	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	1337	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	1434	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	1438	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	1525	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	1529	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	1624	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	1628	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166376BL	PB166376BL	1	1632	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166376BS	PB166376BS	1	1637	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1216-03	JPP-18.1-012825	1	1641	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1216-07	JPP-21.1-012825	1	1645	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1216-11	JPP-21.2-012825	1	1649	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1216-15	JPP-26.1-012825	1	1654	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1216-19	JPP-26.2-012825	1	1658	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1719	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1724	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1221-01DUP	CHESTNUT-CONCRETEDUP	1	1733	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1221-01L	CHESTNUT-CONCRETEL	5	1737	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1221-01MS	CHESTNUT-CONCRETEMS	1	1741	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1221-01MSD	CHESTNUT-CONCRETEMSD	1	1746	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1221-01A	CHESTNUT-CONCRETEA	1	1750	Ba,Co,Cr,Cu,K,Na,Sb,V,Zn
CCV07	CCV07	1	1811	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1815	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	1845	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	1851	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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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1216 **Sas no.:** Q1216 **Sdg no.:** Q1216

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
Q1216-03	JPP-18.1-012825	1	1335	HG
Q1216-07	JPP-21.1-012825	1	1338	HG
Q1216-11	JPP-21.2-012825	1	1340	HG
Q1216-15	JPP-26.1-012825	1	1342	HG
CCV93	CCV93	1	1347	HG
CCB93	CCB93	1	1349	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
Q1216-19	JPP-26.2-012825	5	1447	HG
CCV96	CCV96	1	1452	HG
CCB96	CCB96	1	1454	HG

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LAB CHRONICLE

OrderID:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-04	**JPP-18.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-08	**JPP-21.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-12	**JPP-21.2-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25**			**01/29/25**
			Mercury	7471B		01/30/25	01/31/25	
			Metals ICP-TAL	6010D		01/30/25	01/30/25	
Q1216-16	**JPP-26.1-012825**	**TCLP**			**01/28/25**			**01/29/25**
			TCLP ICP Metals	6010D		01/31/25	02/10/25	
			TCLP Mercury	7470A		02/03/25	02/03/25	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25**			**01/29/25**

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LAB CHRONICLE

			Mercury	7471B		01/30/25	01/31/25
			Metals ICP-TAL	6010D		01/30/25	01/30/25
Q1216-20	**JPP-26.2-012825**	**TCLP**			**01/28/25**		**01/29/25**
			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.: Q1216 **Order ID:** Q1216

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-18.1-012825								
Q1216-04	JPP-18.1-012825	TCLP	Barium	375	J	62.8	500	ug/L
Client ID : JPP-21.1-012825								
Q1216-08	JPP-21.1-012825	TCLP	Barium	393	J	62.8	500	ug/L
Q1216-08	JPP-21.1-012825	TCLP	Cadmium	1.54	J	0.94	30.0	ug/L
Client ID : JPP-21.2-012825								
Q1216-12	JPP-21.2-012825	TCLP	Barium	440	J	62.8	500	ug/L
Q1216-12	JPP-21.2-012825	TCLP	Chromium	8.73	J	6.60	50.0	ug/L
Client ID : JPP-26.1-012825								
Q1216-16	JPP-26.1-012825	TCLP	Barium	294	J	62.8	500	ug/L
Q1216-16	JPP-26.1-012825	TCLP	Lead	49.9	J	35.1	60.0	ug/L
Client ID : JPP-26.2-012825								
Q1216-20	JPP-26.2-012825	TCLP	Barium	282	J	62.8	500	ug/L
Q1216-20	JPP-26.2-012825	TCLP	Chromium	7.82	J	6.60	50.0	ug/L
Q1216-20	JPP-26.2-012825	TCLP	Mercury	1.23	J	0.81	2.00	ug/L

SAMPLE DATA

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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-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-04	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 15:29	SW6010	SW3050
7440-39-3	Barium	375	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 15:29	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 15:29	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 15:29	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 15:29	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:27	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 15:29	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 15:29	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:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-08	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 15:33	SW6010	SW3050
7440-39-3	Barium	393	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 15:33	SW6010	SW3050
7440-43-9	Cadmium	1.54	J	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 15:33	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 15:33	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 15:33	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:29	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 15:33	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 15:33	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

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LOD = Limit of Detection
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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-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-12	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 15:38	SW6010	SW3050
7440-39-3	Barium	440	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 15:38	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 15:38	SW6010	SW3050
7440-47-3	Chromium	8.73	J	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 15:38	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 15:38	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:31	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 15:38	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 15:38	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
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B = Analyte Found in Associated Method Blank
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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-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-16	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 15:42	SW6010	SW3050
7440-39-3	Barium	294	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 15:42	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 15:42	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 15:42	SW6010	SW3050
7439-92-1	Lead	49.9	J	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 15:42	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:38	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 15:42	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 15:42	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
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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-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-20	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 15:47	SW6010	SW3050
7440-39-3	Barium	282	J	1	62.8	500	ug/L	01/31/25 12:30	02/10/25 15:47	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/31/25 12:30	02/10/25 15:47	SW6010	SW3050
7440-47-3	Chromium	7.82	J	1	6.60	50.0	ug/L	01/31/25 12:30	02/10/25 15:47	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/31/25 12:30	02/10/25 15:47	SW6010	SW3050
7439-97-6	Mercury	1.23	J	1	0.81	2.00	ug/L	02/03/25 09:25	02/03/25 16:40	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/31/25 12:30	02/10/25 15:47	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/31/25 12:30	02/10/25 15:47	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
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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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

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.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216

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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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216

contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

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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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1216 **SAS No.:** Q1216

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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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1216 **SAS No.:** Q1216

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	
Q1216-04	JPP-18.1-012825	SAM	WATER	01/31/2025	5.0	25.0	
Q1216-08	JPP-21.1-012825	SAM	WATER	01/31/2025	5.0	25.0	
Q1216-12	JPP-21.2-012825	SAM	WATER	01/31/2025	5.0	25.0	
Q1216-16	JPP-26.1-012825	SAM	WATER	01/31/2025	5.0	25.0	
Q1216-20	JPP-26.2-012825	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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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1216 **SAS No.:** Q1216

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	
Q1216-04	JPP-18.1-012825	SAM	WATER	02/03/2025	3.0	30.0	
Q1216-08	JPP-21.1-012825	SAM	WATER	02/03/2025	3.0	30.0	
Q1216-12	JPP-21.2-012825	SAM	WATER	02/03/2025	3.0	30.0	
Q1216-16	JPP-26.1-012825	SAM	WATER	02/03/2025	3.0	30.0	
Q1216-20	JPP-26.2-012825	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.:** Q1216 **Sas no.:** Q1216 **Sdg no.:** Q1216

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
Q1216-04	JPP-18.1-012825	1	1627	HG
Q1216-08	JPP-21.1-012825	1	1629	HG
Q1216-12	JPP-21.2-012825	1	1631	HG
CCV11	CCV11	1	1633	HG
CCB11	CCB11	1	1636	HG
Q1216-16	JPP-26.1-012825	1	1638	HG
Q1216-20	JPP-26.2-012825	1	1640	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.:** Q1216 **Sas no.:** Q1216 **Sdg no.:** Q1216

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
Q1216-04	JPP-18.1-012825	1	1529	Ag,As,Ba,Cd,Cr,Pb,Se
Q1216-08	JPP-21.1-012825	1	1533	Ag,As,Ba,Cd,Cr,Pb,Se
Q1216-12	JPP-21.2-012825	1	1538	Ag,As,Ba,Cd,Cr,Pb,Se
Q1216-16	JPP-26.1-012825	1	1542	Ag,As,Ba,Cd,Cr,Pb,Se
Q1216-20	JPP-26.2-012825	1	1547	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
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:	Q1216	**OrderDate:**	1/29/2025 11:54:00 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
Q1216-03	**JPP-18.1-012825**	**SOIL**			**01/28/25 08:41**			**01/29/25**
			Paint Filter	9095B			01/31/25 11:08	
Q1216-04	**JPP-18.1-012825**	**SOIL**			**01/28/25 08:41**			**01/29/25**
			Corrosivity	9045D			01/30/25 14:33	
			Ignitability	1030			01/31/25 09:52	
			Reactive Cyanide	9012B		01/30/25	01/30/25 13:14	
			Reactive Sulfide	9034		01/30/25	01/30/25 15:42	
Q1216-07	**JPP-21.1-012825**	**SOIL**			**01/28/25 09:30**			**01/29/25**
			Paint Filter	9095B			01/31/25 11:15	
Q1216-08	**JPP-21.1-012825**	**SOIL**			**01/28/25 09:30**			**01/29/25**
			Corrosivity	9045D			01/30/25 14:37	
			Ignitability	1030			01/31/25 10:00	
			Reactive Cyanide	9012B		01/30/25	01/30/25 13:14	
			Reactive Sulfide	9034		01/30/25	01/30/25 15:45	

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Q1216-11	**JPP-21.2-012825**	**SOIL**			**01/28/25 10:50**		**01/29/25**
			Paint Filter	9095B		01/31/25 11:22	
Q1216-12	**JPP-21.2-012825**	**SOIL**			**01/28/25 10:50**		**01/29/25**
			Corrosivity	9045D		01/30/25 14:40	
			Ignitability	1030		01/31/25 10:08	
			Reactive Cyanide	9012B	01/30/25	01/30/25 13:14	
			Reactive Sulfide	9034	01/30/25	01/30/25 15:48	
Q1216-15	**JPP-26.1-012825**	**SOIL**			**01/28/25 11:35**		**01/29/25**
			Paint Filter	9095B		01/31/25 11:30	
Q1216-16	**JPP-26.1-012825**	**SOIL**			**01/28/25 11:35**		**01/29/25**
			Corrosivity	9045D		01/30/25 14:46	
			Ignitability	1030		01/31/25 10:15	
			Reactive Cyanide	9012B	01/30/25	01/30/25 13:14	
			Reactive Sulfide	9034	01/30/25	01/30/25 15:52	
Q1216-19	**JPP-26.2-012825**	**SOIL**			**01/28/25 13:32**		**01/29/25**
			Paint Filter	9095B		01/31/25 11:38	
Q1216-20	**JPP-26.2-012825**	**SOIL**			**01/28/25 13:32**		**01/29/25**
			Corrosivity	9045D		01/30/25 14:50	

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LAB CHRONICLE

Ignitability	1030		01/31/25 10:22
Reactive Cyanide	9012B	01/30/25	01/30/25 13:14
Reactive Sulfide	9034	01/30/25	01/30/25 15:55

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25 08:41
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-03	Matrix:	SOIL
		% Solid:	83.3

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		01/31/25 11:08	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:	01/28/25 08:41
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-18.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-04	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.68	H	1	0	0	pH		01/30/25 14:33	9045D
Ignitability	NO		1	0	0	oC		01/31/25 09:52	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:14	9012B
Reactive Sulfide	1.59	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:42	9034

Comments: pH result reported at temperature 20.2 °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:	01/28/25 09:30
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-07	Matrix:	SOIL
		% Solid:	90.4

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		01/31/25 11:15	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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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25 09:30
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-08	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.95	H	1	0	0	pH		01/30/25 14:37	9045D
Ignitability	NO		1	0	0	oC		01/31/25 10:00	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:14	9012B
Reactive Sulfide	7.97	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:45	9034

Comments: pH result reported at temperature 20.7 °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:	01/28/25 10:50
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-11	Matrix:	SOIL
		% Solid:	84.3

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		01/31/25 11:22	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:	01/28/25 10:50
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-21.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-12	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.90	H	1	0	0	pH		01/30/25 14:40	9045D
Ignitability	NO		1	0	0	oC		01/31/25 10:08	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:14	9012B
Reactive Sulfide	1.59	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:48	9034

Comments: pH result reported at temperature 20.9 °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:	01/28/25 11:35
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-15	Matrix:	SOIL
		% Solid:	82.8

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		01/31/25 11:30	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:	01/28/25 11:35
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.1-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-16	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.56	H	1	0	0	pH		01/30/25 14:46	9045D
Ignitability	NO		1	0	0	oC		01/31/25 10:15	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:14	9012B
Reactive Sulfide	4.74	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:52	9034

Comments: pH result reported at temperature 20.1 °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:	01/28/25 13:32
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-19	Matrix:	SOIL
		% Solid:	85.8

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		01/31/25 11:38	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:	01/28/25 13:32
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	JPP-26.2-012825	SDG No.:	Q1216
Lab Sample ID:	Q1216-20	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	9.26	H	1	0	0	pH		01/30/25 14:50	9045D
Ignitability	NO		1	0	0	oC		01/31/25 10:22	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:14	9012B
Reactive Sulfide	4.76	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:55	9034

Comments: pH result reported at temperature 20.9 °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

Alliance TECHNICAL GROUP
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Initial and Continuing Calibration Verification

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **RunNo.:** LB134487

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.098	0.099	99	85-115	01/30/2025
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/30/2025
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/30/2025
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/30/2025
Sample ID: CCV4						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	01/30/2025

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Initial and Continuing Calibration Verification

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1216
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 Blank Summary

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1216
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134487

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	01/30/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB4							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025

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Preparation Blank Summary

Client: RU2 Engineering, LLC **SDG No.:** Q1216

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB166323BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	01/30/2025
Sample ID: PB166380BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	01/30/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1216
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1205-02
Client ID: VNJ-236DUP
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 Cyanide	mg/Kg	+/-20	0.0087	U	0.0088	U	1	0		01/30/2025
Reactive Sulfide	mg/Kg	+/-20	3.17	J	3.17	J	1	0		01/30/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1216
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1215-03
Client ID: JPP-29.1-012825DUP
Percent Solids for Spike Sample: 88.8

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		01/31/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1216
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.: Q1216
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.: Q1216
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

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

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(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Q1216
QUOTE NO.
COC Number 2041068

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: Ruta Manani
PHONE: 609-409-4564 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: SANDTWOBR BMCR Project
PROJECT NO.: LOCATION: Brooklyn, NYC
PROJECT MANAGER: Ruta 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 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☒ NYS ASP B
☐ Other
☐ EDD FORMAT

ANALYSIS

1 TCL VOC + TICs MTBE TBA
2 TCLP VOCs
3 TPH GRO - DRO
4 TCL SVOCs + TICs
5 TAL Metals
6 Pesticides, PCBs
7 RCRA characteristics
8 Paint filter
9 full TCLP

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	JPP-18.1-012825	Soil		G	1/28/25	8:35	3	X	X	X							
2.	JPP-18.1-012825	Soil	C		1/28/25	8:41	7			X	X	X	X	X	X	X	
3.	JPP-21.1-012825	Soil		G	1/28/25	9:25	3	X	X	X							
4.	JPP-21.1-012825	Soil	C		1/28/25	9:30	7			X	X	X	X	X	X	X	
5.	JPP-21.2-012825	Soil		G	1/28/25	10:44	3	X	X	X							
6.	JPP-21.2-012825	Soil	C		1/28/25	10:50	7			X	X	X	X	X	X	X	
7.	JPP-26.1-012825	Soil		G	1/28/25	11:28	3	X	X	X							
8.	JPP-26.1-012825	Soil	C		1/28/25	11:35	7			X	X	X	X	X	X	X	
9.	JPP-26.2-012825	Soil		G	1/28/25	13:20	3	X	X	X							
10.	JPP-26.2-012825	Soil	C		1/28/25	13:32	7			X	X	X	X	X	X	X	

PRESERVATIVES: 1-A-HCl, 2-B-HN03, 3-C-H2SO4, 4-D-NaOH, 5-E-ICE, 6-F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. AA	1/29/2025	1. 1045 1-29-25
2.		2.
3.	1.29.25 1614	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.8 °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

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WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

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 : Q1216 RUTW01
Client Name : RU2 Engineering, LLC
Client Contact : Rutu Manani
Invoice Name : RU2 Engineering, LLC
Invoice Contact : Rutu Manani

Order Date : 1/29/2025 11:54:00 AM
Project Name : SANDTWOBR BMCR Bro
Receive DateTime : 1/29/2025 4:14:00 PM
Purchase Order :

YG
02/03/25
NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Project Mgr :
Report Type : NYS ASP B
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1216-01	JPP-18.1-012825	Solid	01/28/2025	08:35					
					VOCMS Group1		8260D		10 Bus. Days
Q1216-05	JPP-21.1-012825	Solid	01/28/2025	09:25					
					VOCMS Group1		8260D		10 Bus. Days
Q1216-09	JPP-21.2-012825	Solid	01/28/2025	10:44					
					VOCMS Group1		8260D		10 Bus. Days
Q1216-13	JPP-26.1-012825	Solid	01/28/2025	11:28					
					VOCMS Group1		8260D		10 Bus. Days
Q1216-17	JPP-26.2-012825	Solid	01/28/2025	13:20					
					VOCMS Group1		8260D		10 Bus. Days

Relinguished By:
Date / Time : 1-29-25 1700

Received By :
Date / Time : 1-29-25 17:00

Storage Area : VOA Refridgerator Room

Samples in Sm Frig @1700.