

ANALYTICAL RESULTS SUMMARY

GENERAL CHEMISTRY

PROJECT NAME : NWIRP BETHPAGE 112G08005-WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q1120

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q1120

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q1120-01

Client Sample Number

RW10A-20250116

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: 1/24/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: NWIRP Bethpage 112G08005-WE13

Project Manager: Ernie Wu

Chemtech Project # Q1120

Test Name: Anions Group2,Cyanide,TOC,Ammonia,COD,BOD5,Sulfide

A. Number of Samples and Date of Receipt:

1 Water sample was received on 01/16/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group2, Anions Group3, BOD5, Bromide, Chloride, COD, Cyanide, Fluoride, Nitrate, Nitrite, Phosphorus-Ortho, Sulfate, Sulfide and TOC. This data package contains results for Anions Group2,Cyanide,TOC,Ammonia,COD,BOD5,Sulfide.

C. Analytical Techniques:

The analysis of Anions Group2 was based on method 300.0, The analysis of Sulfide was based on method 9034, The analysis of TOC was based on method 9060A, The analysis of Cyanide was based on method SM4500-CN C,E, The analysis of Ammonia was based on method SM4500-NH3, The analysis of BOD5 was based on method SM5210 B and The analysis of COD was based on method SM5220 D.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

Sample RW10A-20250116 was diluted due to high concentrations for Chloride.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (RW10A-20250116MS) analysis met criteria for all samples except for Chloride due to matrix interference.

The Matrix Spike Duplicate (DSN002MSD) analysis met criteria for all samples except for Ammonia due to matrix interference.

The Matrix Spike Duplicate (RW10A-20250116MSD) analysis met criteria for all samples except for Chloride due to matrix interference.

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

The Calibration met the requirements.

E. Additional Comments:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed



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

Signature_____

DATA REPORTING QUALIFIERS- INORGANIC

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1120

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 01/24/2025

LAB CHRONICLE

OrderID:	Q1120	OrderDate:	1/16/2025 4:25:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	Location:	M11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1120-01	RW10A-20250116	WATER			01/16/25 10:40			01/16/25
			Ammonia	SM4500-NH3		01/17/25	01/17/25 11:53	
			Anions Group2	300.0			01/17/25 10:09	
			BOD5	SM5210 B			01/16/25 18:50	
			COD	SM5220 D			01/22/25 13:39	
			Cyanide	SM4500-CN C,E		01/17/25	01/17/25 15:20	
			Sulfide	9034		01/21/25	01/21/25 14:36	
			TOC	9060A			01/17/25 12:24	
Q1120-01DL	RW10A-20250116DL	WATER			01/16/25 10:40			01/16/25
			Anions Group2	300.0			01/17/25 11:13	



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/16/25 10:40
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	01/16/25
Client Sample ID:	RW10A-20250116	SDG No.:	Q1120
Lab Sample ID:	Q1120-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	0.061	J	1	0.045	0.080	0.10	mg/L	01/17/25 08:45	01/17/25 11:53	SM 4500-NH3 B plus G-11
Chloride	128	OR	1	0.011	0.30	0.60	mg/L		01/17/25 10:09	300.0
Nitrite	0.30	U	1	0.011	0.30	0.60	mg/L		01/17/25 10:09	300.0
Nitrate	0.19	J	1	0.0034	0.25	0.50	mg/L		01/17/25 10:09	300.0
Sulfate	29.8		1	0.032	1.50	3.00	mg/L		01/17/25 10:09	300.0
Nitrate+Nitrite	0.19	J	1	0.010	0.55	1.10	mg/L		01/17/25 10:09	300.0
BOD5	18.8		1	0.17	2.00	2.00	mg/L		01/16/25 18:50	SM 5210 B-16
COD	5.00	U	1	2.35	5.00	10.0	mg/L		01/22/25 13:39	SM 5220 D-11
Cyanide	0.0011	J	1	0.00093	0.0025	0.0050	mg/L	01/17/25 12:15	01/17/25 15:20	SM 4500-CN C-16 plus E-16
Sulfide	0.50	U	1	0.43	0.50	1.00	mg/L	01/21/25 10:45	01/21/25 14:36	9034
TOC	0.77	J	1	0.19	0.50	1.00	mg/L		01/17/25 12:24	9060A

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/16/25 10:40
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	01/16/25
Client Sample ID:	RW10A-20250116DL	SDG No.:	Q1120
Lab Sample ID:	Q1120-01DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	100	D	50	0.55	15.0	30.0	mg/L		01/17/25 11:13	300.0

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



QC RESULT SUMMARY

Initial and Continuing Calibration Verification

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134317

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 TOC	mg/L	10.4	10	104	90-110	01/15/2025
Sample ID: CCV1 TOC	mg/L	10.2	10	102	90-110	01/17/2025
Sample ID: CCV2 TOC	mg/L	10.2	10	102	90-110	01/17/2025

Initial and Continuing Calibration Verification

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134320

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: CCV1						
Bromide	mg/L	10.4	10	104	90-110	01/17/2025
Chloride	mg/L	3.1	3	103	90-110	01/17/2025
Fluoride	mg/L	2.1	2	105	90-110	01/17/2025
Nitrite	mg/L	3.1	3	103	90-110	01/17/2025
Nitrate	mg/L	2.6	2.5	104	90-110	01/17/2025
Sulfate	mg/L	15.5	15	103	90-110	01/17/2025
Orthophosphate as P	mg/L	5.2	5	104	90-110	01/17/2025
Sample ID: CCV2						
Bromide	mg/L	10.5	10	105	90-110	01/17/2025
Chloride	mg/L	3.1	3	103	90-110	01/17/2025
Fluoride	mg/L	2.1	2	105	90-110	01/17/2025
Nitrite	mg/L	3.1	3	103	90-110	01/17/2025
Nitrate	mg/L	2.6	2.5	104	90-110	01/17/2025
Sulfate	mg/L	15.6	15	104	90-110	01/17/2025
Orthophosphate as P	mg/L	5.4	5	108	90-110	01/17/2025
Sample ID: ICV1						
Bromide	mg/L	10.3	10	103	90-110	12/18/2024
Chloride	mg/L	3.1	3	103	90-110	12/18/2024
Fluoride	mg/L	2	2	100	90-110	12/18/2024
Nitrite	mg/L	3.1	3	103	90-110	12/18/2024
Nitrate	mg/L	2.6	2.5	104	90-110	12/18/2024
Sulfate	mg/L	15.3	15	102	90-110	12/18/2024
Orthophosphate as P	mg/L	5.1	5	102	90-110	12/18/2024

Initial and Continuing Calibration Verification

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134325

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	1	1	100	90-110	01/17/2025
Sample ID: CCV1 Ammonia as N	mg/L	1	1	100	90-110	01/17/2025
Sample ID: CCV2 Ammonia as N	mg/L	1	1	100	90-110	01/17/2025
Sample ID: CCV3 Ammonia as N	mg/L	1.1	1	110	90-110	01/17/2025
Sample ID: CCV4 Ammonia as N	mg/L	1	1	100	90-110	01/17/2025

Initial and Continuing Calibration Verification

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134333

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.098	0.099	99	85-115	01/17/2025
Sample ID: CCV1 Cyanide	mg/L	0.25	0.25	100	90-110	01/17/2025
Sample ID: CCV2 Cyanide	mg/L	0.27	0.25	108	90-110	01/17/2025

Initial and Continuing Calibration Verification

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134365

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV COD	mg/L	49.329	50	99	95-105	01/22/2025
Sample ID: CCV1 COD	mg/L	50.319	50	101	95-105	01/22/2025
Sample ID: CCV2 COD	mg/L	49.329	50	99	95-105	01/22/2025
Sample ID: CCV3 COD	mg/L	49.329	50	99	95-105	01/22/2025

Initial and Continuing Calibration Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134317

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 TOC	mg/L	0.2	0.5000	J	0.19	1	01/15/2025
Sample ID: CCB1 TOC	mg/L	< 0.5000	0.5000	U	0.19	1	01/17/2025
Sample ID: CCB2 TOC	mg/L	0.24	0.5000	J	0.19	1	01/17/2025

Initial and Continuing Calibration Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134320

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	01/17/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/17/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/17/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/17/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/17/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/17/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/17/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	01/17/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/17/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/17/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/17/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/17/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/17/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/17/2025
Sample ID: ICB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/18/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/18/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/18/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/18/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/18/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/18/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/18/2024

Initial and Continuing Calibration Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134325

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025

Initial and Continuing Calibration Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134333

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	01/17/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	01/17/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	01/17/2025

Initial and Continuing Calibration Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB134365

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB COD	mg/L	< 5.0000	5.0000	U	2.35	10	01/22/2025
Sample ID: CCB1 COD	mg/L	< 5.0000	5.0000	U	2.35	10	01/22/2025
Sample ID: CCB2 COD	mg/L	< 5.0000	5.0000	U	2.35	10	01/22/2025
Sample ID: CCB3 COD	mg/L	< 5.0000	5.0000	U	2.35	10	01/22/2025

Preparation Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q1120

Project: NWIRP Bethpage 112G08005-WE13

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB134317BLW							
TOC	mg/L	0.19	0.5000	J	0.19	1	01/17/2025
Sample ID: LB134320BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	01/17/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/17/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/17/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/17/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/17/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/17/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/17/2025
Sample ID: LB134322BL							
BOD5	mg/L	< 0.2000	0.2000	U	0.17	2.0	01/16/2025
Sample ID: LB134365BL							
COD	mg/L	< 5.0000	5.0000	U	2.35	10.0	01/22/2025
Sample ID: PB166092BL							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: PB166125BL							
Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	01/17/2025
Sample ID: PB166159BL							
Sulfide	mg/L	< 0.5000	0.5000	U	0.43	1.0	01/21/2025

Matrix Spike Summary

Client:

Tetra Tech NUS, Inc.

SDG No.:

Q1120

Project:

NWIRP Bethpage 112G08005-WE13

Sample ID:

Q1109-01

Client ID:

TAPIAL1-MW04I-011525-00-T3MS

Percent Solids for Spike Sample:

0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/L	75-125	10.5		0.98	J	10	1	95		01/17/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1109-01
Client ID:	TAPIAL1-MW04I-011525-00-T3MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/L	75-125	10.6		0.98	J	10	1	96		01/17/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1113-01
Client ID:	DSN002MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	4.30	OR	3.40	OR	1	1	90		01/17/2025
COD	mg/L	75-125	102		54.3		50.0	1	95		01/22/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1113-01
Client ID:	DSN002MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	4.10	OR	3.40	OR	1	1	70	*	01/17/2025
COD	mg/L	75-125	101		54.3		50.0	1	93		01/22/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1120-01
Client ID:	RW10A-20250116MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	10.2		0.69	J	10	1	95		01/17/2025
Sulfide	mg/L	75-125	24.0		0.43	U	25.0	1	96		01/21/2025
Cyanide	mg/L	75-125	0.045		0.0011	J	0.04	1	110		01/17/2025
Chloride	mg/L	80-120	127	OR	128	OR	3	1	-33	*	01/17/2025
Fluoride	mg/L	80-120	2.10		0.15	J	2	1	98		01/17/2025
Nitrite	mg/L	80-120	3.00		0.011	U	3	1	100		01/17/2025
Nitrate	mg/L	80-120	2.60		0.19	J	2.5	1	96		01/17/2025
Sulfate	mg/L	80-120	43.2	OR	29.8		15	1	89		01/17/2025
Orthophosphate as P	mg/L	80-120	5.60		0.079	U	5	1	112		01/17/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1120-01
Client ID:	RW10A-20250116MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	10.2		0.69	J	10	1	95		01/17/2025
Sulfide	mg/L	75-125	24.2		0.43	U	25.0	1	97		01/21/2025
Cyanide	mg/L	75-125	0.044		0.0011	J	0.04	1	107		01/17/2025
Chloride	mg/L	80-120	127	OR	128	OR	3	1	-33	*	01/17/2025
Fluoride	mg/L	80-120	2.10		0.15	J	2	1	98		01/17/2025
Nitrite	mg/L	80-120	3.00		0.011	U	3	1	100		01/17/2025
Nitrate	mg/L	80-120	2.60		0.19	J	2.5	1	96		01/17/2025
Sulfate	mg/L	80-120	43.4	OR	29.8		15	1	91		01/17/2025
Orthophosphate as P	mg/L	80-120	5.50		0.079	U	5	1	110		01/17/2025

Duplicate Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1109-01
Client ID:	TAPIAL1-MW04I-011525-00-T3MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
TOC	mg/L	+/-20	10.5		10.6		1	1		01/17/2025

Duplicate Sample Summary

Client: Tetra Tech NUS, Inc. Project: NWIRP Bethpage 112G08005-WE13 Client ID: DSN002DUP	SDG No.: Q1120 Sample ID: Q1113-01 Percent Solids for Spike Sample: 0
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	3.40	OR	3.30	OR	1	3		01/17/2025
COD	mg/L	+/-20	54.3		55.3		1	1.82		01/22/2025

Duplicate Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1113-01
Client ID:	DSN002MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	4.30	OR	4.10	OR	1	5		01/17/2025
COD	mg/L	+/-20	102		101		1	0.99		01/22/2025

Duplicate Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q1120-01
Client ID:	RW10A-20250116DUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
BOD5	mg/L	+/-20	18.8		18.8		1	0.32		01/16/2025
Cyanide	mg/L	+/-20	0.0011	J	0.0010	J	1	10		01/17/2025
Sulfide	mg/L	+/-20	0.43	U	0.43	U	1	0		01/21/2025

Duplicate Sample Summary

Client: Tetra Tech NUS, Inc.	SDG No.: Q1120
Project: NWIRP Bethpage 112G08005-WE13	Sample ID: Q1120-01
Client ID: RW10A-20250116MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Bromide	mg/L	+/-20	10.2		10.2		1	0		01/17/2025
Fluoride	mg/L	+/-20	2.10		2.10		1	0		01/17/2025
Nitrate	mg/L	+/-20	2.60		2.60		1	0		01/17/2025
Nitrite	mg/L	+/-20	3.00		3.00		1	0		01/17/2025
Chloride	mg/L	+/-20	127	OR	127	OR	1	0		01/17/2025
Sulfate	mg/L	+/-20	43.2	OR	43.4	OR	1	0		01/17/2025
Orthophosphate as P	mg/L	+/-20	5.60		5.50		1	2		01/17/2025
Cyanide	mg/L	+/-20	0.045		0.044		1	2		01/17/2025
Sulfide	mg/L	+/-20	24.0		24.2		1	0.83		01/21/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134317

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134317BSW							
TOC	mg/L	10	10.3		103	1	90-110	01/17/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134320

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134320BSW							
Bromide	mg/L	10	10.4		104	1	90-110	01/17/2025
Chloride	mg/L	3	3.10		103	1	90-110	01/17/2025
Fluoride	mg/L	2	2.10		105	1	90-110	01/17/2025
Nitrite	mg/L	3	3.10		103	1	90-110	01/17/2025
Nitrate	mg/L	2.5	2.60		104	1	90-110	01/17/2025
Sulfate	mg/L	15	15.5		103	1	90-110	01/17/2025
Orthophosphate as P	mg/L	5	5.40		108	1	90-110	01/17/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134322

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134322BS							
BOD5	mg/L	198	192		97	1	84.6-115.4	01/16/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134365

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134365BS							
COD	mg/L	50	50.3		101	1	90-110	01/22/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134325

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166092BS							
Ammonia as N	mg/L	1	0.99		99	1	90-110	01/17/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134333

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166125BS							
Cyanide	mg/L	0.1	0.099		99	1	85-115	01/17/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1120
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB134363

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166159BS							
Sulfide	mg/L	25	24.2		97	1	80-120	01/21/2025



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. **Q1120**
QUOTE NO.
COC Number **2031337**

6

6.1

CLIENT INFORMATION

COMPANY: **Tetra Tech Inc.**
ADDRESS: **4433 Corporation Lane Suite B 300**
CITY: **Virginia Beach** STATE: **VA** ZIP: **23462**
ATTENTION: **Ernie Wu**
PHONE: **757-466-4901** FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **NWIRP Beth page**
PROJECT NO.: **112608003-WE13** LOCATION: **Beth page, NY**
PROJECT MANAGER: **Ernie Wu**
e-mail: **ernie.wu@tetra tech.com**
PHONE: **757-466-4901** FAX:

CLIENT BILLING INFORMATION

BILL TO: **See Contract** PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): **Standard TAT** DAYS*
EDD: **Standard TAT** 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) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☒ Other **See Contract**
☐ EDD FORMAT

Sulfide BOD COD Chloride Cyanide Sulfide TOC Ammonia Anions (Nitrate/Nitrite)

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		E	E	C/E	E	E	EMF	C/E	C/E	B/E	
1.	BW10A-20250116	GW		X	1-16-25	1040	10	1	1	1	1	1	1	2	1	1	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. **Sh Wu** DATE/TIME: **1-16-25/1530** RECEIVED BY: 1. **[Signature]** **1530**
RELINQUISHED BY SAMPLER: 2. DATE/TIME: RECEIVED BY: 2. **[Signature]** **1-16-25**
RELINQUISHED BY SAMPLER: 3. **[Signature]** DATE/TIME: **1-16-25** RECEIVED BY: 3. **[Signature]**

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP **2.7°C**
Comments:

Page **2** of **2**

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☒ Picked Up ☐ Field Sampling

Shipment Complete
☐ YES ☐ NO

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