

**DATA PACKAGE  
GENERAL CHEMISTRY**

**PROJECT NAME : R36720**

**TETRA TECH, EMI  
240 Continental Drive, Suite 200**

**Newark, DE - 19713  
Phone No: 302-738-7551**

**ORDER ID : P4649  
ATTENTION : Ava Heiss**



**Laboratory Certification ID # 20012**



1) GENERAL CHEMISTRY DATA	2
2) Signature Page	3
3) Case Narrative	4
4) Qualifier Page	5
5) Conformance/Non Conformance	6
6) QA Checklist	7
7) Chronicle	8
8) Sample Data	10
8.1) MC0JZ7	11
8.2) MC0JZ9	12
8.3) MC0K01	13
8.4) MC0K04	14
8.5) MC0K06	15
8.6) MC0K08	16
8.7) MC0K10	17
8.8) MC0K12	18
8.9) MC0K14	19
8.10) MC0K16	20
8.11) MC0K18	21
8.12) MC0K20	22
8.13) MC0K22	23
9) QC Data Summary For Genchem	24
9.1) Preparation Blank Summary	25
9.2) Duplicate Sample Summary	26
9.3) Laboratory Control Sample Summary	27
10) GENCHEM RAW DATA	28
10.1) GENCHEM RAW DATA - ANALYTICAL	29
10.1.1) LB133266	29
11) Analytical Runlogs	32
12) Standard Prep Logs	33
13) Shipping Document	35
13.1) Chain Of Custody	36
13.2) Lab Certificate	38

## Cover Page

**Order ID :** P4649

**Project ID :** R36720

**Client :** Tetra Tech, EMI

### Lab Sample Number

P4649-01  
P4649-02  
P4649-03  
P4649-04  
P4649-05  
P4649-06  
P4649-07  
P4649-08  
P4649-09  
P4649-10  
P4649-11  
P4649-12  
P4649-13

### Client Sample Number

MC0JZ7  
MC0JZ9  
MC0K01  
MC0K04  
MC0K06  
MC0K08  
MC0K10  
MC0K12  
MC0K14  
MC0K16  
MC0K18  
MC0K20  
MC0K22

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: 11/6/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

## **CASE NARRATIVE**

**Tetra Tech, EMI**

**Project Name: R36720**

**Project # N/A**

**Chemtech Project # P4649**

**Test Name: TSS**

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

13 Water samples were received on 10/31/2024.

### **B. Parameters:**

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

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

The analysis of TSS was based on method SM2540 D.

### **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 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\_\_\_\_\_

## DATA REPORTING QUALIFIERS- INORGANIC

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

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

**GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: P4649

MATRIX: Water

METHOD: SM2540 D

	NA	NO	YES
1. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2. Matrix Spike Duplicate Recoveries Met Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
The Blank Spike met requirements for all samples.			
3. Sample Duplicate Analysis Met QC Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
4. Digestion Holding Time Met			✓
If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

\_\_\_\_\_  
QA REVIEW

\_\_\_\_\_  
Date

APPENDIX A

**QA REVIEW GENERAL DOCUMENTATION**

Project #: P4649

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: 11/06/2024

## LAB CHRONICLE

<b>OrderID:</b>	P4649	<b>OrderDate:</b>	10/31/2024 11:09:00 AM
<b>Client:</b>	Tetra Tech, EMI	<b>Project:</b>	R36720
<b>Contact:</b>	Ava Heiss	<b>Location:</b>	K61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4649-01	MC0JZ7	WATER	TSS	SM2540 D	10/29/24 12:20		11/04/24 09:30	10/31/24
P4649-02	MC0JZ9	WATER	TSS	SM2540 D	10/29/24 12:30		11/04/24 09:30	10/31/24
P4649-03	MC0K01	WATER	TSS	SM2540 D	10/29/24 12:45		11/04/24 09:30	10/31/24
P4649-04	MC0K04	WATER	TSS	SM2540 D	10/29/24 12:40		11/04/24 09:30	10/31/24
P4649-05	MC0K06	WATER	TSS	SM2540 D	10/29/24 12:05		11/04/24 09:30	10/31/24
P4649-06	MC0K08	WATER	TSS	SM2540 D	10/29/24 11:20		11/04/24 09:30	10/31/24
P4649-07	MC0K10	WATER	TSS	SM2540 D	10/29/24 10:20		11/04/24 09:30	10/31/24

## LAB CHRONICLE

<b>P4649-08</b>	<b>MC0K12</b>	<b>WATER</b>			<b>10/29/24</b> <b>11:05</b>		<b>10/31/24</b>
			TSS	SM2540 D		11/04/24 09:30	
<b>P4649-09</b>	<b>MC0K14</b>	<b>WATER</b>			<b>10/29/24</b> <b>11:50</b>		<b>10/31/24</b>
			TSS	SM2540 D		11/04/24 09:30	
<b>P4649-10</b>	<b>MC0K16</b>	<b>WATER</b>			<b>10/29/24</b> <b>10:40</b>		<b>10/31/24</b>
			TSS	SM2540 D		11/04/24 09:30	
<b>P4649-11</b>	<b>MC0K18</b>	<b>WATER</b>			<b>10/29/24</b> <b>12:55</b>		<b>10/31/24</b>
			TSS	SM2540 D		11/04/24 09:30	
<b>P4649-12</b>	<b>MC0K20</b>	<b>WATER</b>			<b>10/29/24</b> <b>11:35</b>		<b>10/31/24</b>
			TSS	SM2540 D		11/04/24 09:30	
<b>P4649-13</b>	<b>MC0K22</b>	<b>WATER</b>			<b>10/29/24</b> <b>09:45</b>		<b>10/31/24</b>
			TSS	SM2540 D		11/04/24 09:30	



# SAMPLE DATA

1
2
3
4
5
6
7
8
9
10
11
12
13

## Report of Analysis

Client:	Tetra Tech, EMI	Date Collected:	10/29/24 12:20
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0JZ7	SDG No.:	P4649
Lab Sample ID:	P4649-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	263		1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 12:30
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0JZ9	SDG No.:	P4649
Lab Sample ID:	P4649-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	3.00	J	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 12:45
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K01	SDG No.:	P4649
Lab Sample ID:	P4649-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.60	J	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 12:40
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K04	SDG No.:	P4649
Lab Sample ID:	P4649-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.00	U	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 12:05
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K06	SDG No.:	P4649
Lab Sample ID:	P4649-05	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.00	U	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 11:20
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K08	SDG No.:	P4649
Lab Sample ID:	P4649-06	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.00	U	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 10:20
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K10	SDG No.:	P4649
Lab Sample ID:	P4649-07	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.10	J	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 11:05
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K12	SDG No.:	P4649
Lab Sample ID:	P4649-08	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.50	J	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 11:50
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K14	SDG No.:	P4649
Lab Sample ID:	P4649-09	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.00	U	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 10:40
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K16	SDG No.:	P4649
Lab Sample ID:	P4649-10	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.00	U	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 12:55
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K18	SDG No.:	P4649
Lab Sample ID:	P4649-11	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	12.1		1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 11:35
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K20	SDG No.:	P4649
Lab Sample ID:	P4649-12	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1.00	U	1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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, EMI	Date Collected:	10/29/24 09:45
Project:	R36720	Date Received:	10/31/24
Client Sample ID:	MC0K22	SDG No.:	P4649
Lab Sample ID:	P4649-13	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	5.80		1	1.00	4.00	mg/L		11/04/24 09:30	SM 2540 D-15

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

**Preparation Blank Summary**

**Client:** Tetra Tech, EMI

**SDG No.:** P4649

**Project:** R36720

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	<b>LB133266BL</b>						
TSS	mg/L	< 2.0000	2.0000	U	1	4	11/04/2024

### Duplicate Sample Summary

<b>Client:</b>	Tetra Tech, EMI	<b>SDG No.:</b>	P4649
<b>Project:</b>	R36720	<b>Sample ID:</b>	P4638-02
<b>Client ID:</b>	COMPDUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
TSS	mg/L	+/-5	734		740		1	0.81		11/04/2024

### Laboratory Control Sample Summary

**Client:** Tetra Tech, EMI

**SDG No.:** P4649

**Project:** R36720

**Run No.:** LB133266

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133266BS							
TSS	mg/L	550	538		98	1	90-110	11/04/2024



# RAW DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: Niha

Date: 11/01/2024

Run Number: LB133266

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 11/01/2024 14:00 TEMP1 OUT: 104 °C 11/01/2024 15:00  
 TEMP2 IN: 103 °C 11/01/2024 15:30 TEMP2 OUT: 104 °C 11/01/2024 16:30  
 TEMP3 IN: 104 °C 11/04/2024 09:30 TEMP3 OUT: 103 °C 11/04/2024 11:00  
 TEMP4 IN: 104 °C 11/04/2024 11:30 TEMP4 OUT: 103 °C 11/04/2024 13:00

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB133266BL	LB133266BL	1.4012	1.4012	100	1.4012	1.4012	1.4012	0.0000	0
2	LB133266BS	LB133266BS	1.4132	1.4132	100	1.4670	1.4670	1.4670	0.0538	538
3	P4638-02	COMP	1.3988	1.3988	50	1.4355	1.4355	1.4355	0.0367	734
4	P4638-02DUP	COMPDUP	1.4021	1.4021	50	1.4391	1.4391	1.4391	0.0370	740
5	P4649-01	MC0JZ7	1.3994	1.3994	1000	1.6624	1.6624	1.6624	0.2630	263
6	P4649-02	MC0JZ9	1.3908	1.3908	1000	1.3938	1.3938	1.3938	0.0030	3
7	P4649-03	MC0K01	1.4168	1.4168	1000	1.4184	1.4184	1.4184	0.0016	1.6
8	P4649-04	MC0K04	1.4040	1.4040	1000	1.4046	1.4046	1.4046	0.0006	0.6
9	P4649-05	MC0K06	1.4134	1.4134	1000	1.4138	1.4138	1.4138	0.0004	0.4
10	P4649-06	MC0K08	1.4151	1.4151	1000	1.4155	1.4155	1.4155	0.0004	0.4
11	P4649-07	MC0K10	1.4021	1.4021	1000	1.4032	1.4032	1.4032	0.0011	1.1
12	P4649-08	MC0K12	1.3961	1.3961	1000	1.3976	1.3976	1.3976	0.0015	1.5
13	P4649-09	MC0K14	1.4068	1.4068	1000	1.4074	1.4074	1.4074	0.0006	0.6
14	P4649-10	MC0K16	1.4059	1.4059	1000	1.4065	1.4065	1.4065	0.0006	0.6
15	P4649-11	MC0K18	1.3990	1.3990	1000	1.4111	1.4111	1.4111	0.0121	12.1

# TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: Niha

Date: 11/01/2024

Run Number: LB133266

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 11/01/2024 14:00 TEMP1 OUT: 104 °C 11/01/2024 15:00  
 TEMP2 IN: 103 °C 11/01/2024 15:30 TEMP2 OUT: 104 °C 11/01/2024 16:30  
 TEMP3 IN: 104 °C 11/04/2024 09:30 TEMP3 OUT: 103 °C 11/04/2024 11:00  
 TEMP4 IN: 104 °C 11/04/2024 11:30 TEMP4 OUT: 103 °C 11/04/2024 13:00

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
16	P4649-12	MC0K20	1.4052	1.4052	1000	1.4055	1.4055	1.4055	0.0003	0.3
17	P4649-13	MC0K22	1.3714	1.3714	1000	1.3772	1.3772	1.3772	0.0058	5.8
18	P4674-01	OUTFALL-001	1.4101	1.4101	750	1.4905	1.4905	1.4905	0.0804	107.2

A = Sample Volume (ml)  
 B = Final Empty Dish Weight (g)  
 C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)  
 D = Weight (g)

P4649-GENCHEM

Weight (g) = C - B

Result mg/L =  $\frac{D}{A} \times 1000 \times 1000$

## WORKLIST(Hardcopy Internal Chain)

LB133266

WorkList Name : TSS-10312024      WorkList ID : 184987      Department : Wet-Chemistry      Date : 10-31-2024 11:45:53

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4674-01	OUTFALL-001	Water	TSS	Cool 4 deg C	RSBE01	K51	10/31/2024	SM2540 D
P4649-01	MC0JZ7	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-02	MC0JZ9	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-03	MC0K01	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-04	MC0K04	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-05	MC0K06	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-06	MC0K08	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-13	MC0K22	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-07	MC0K10	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-08	MC0K12	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-09	MC0K14	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-10	MC0K16	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-11	MC0K18	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4649-12	MC0K20	Water	TSS	Cool 4 deg C	TETR16	K61	10/29/2024	SM2540 D
P4638-02	COMP	Water	TSS	Cool 4 deg C	ARAM01	L11	10/30/2024	SM2540 D

Date/Time 11.04.2024, 09:00  
Raw Sample Received by: NF(wc)  
Raw Sample Relinquished by: CP San

Date/Time 11.04.2024, 11:00  
Raw Sample Received by: CP San  
Raw Sample Relinquished by: NF(wc)

Instrument ID: WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133266**

Review By	Niha	Review On	11/4/2024 2:44:16 PM
Supervise By	Iwona	Supervise On	11/4/2024 4:46:27 PM
SubDirectory	LB133266	Test	TSS
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133266BL	LB133266BL	MB	11/04/24 09:30		Niha	OK
2	LB133266BS	LB133266BS	LCS	11/04/24 09:30		Niha	OK
3	P4638-02	COMP	SAM	11/04/24 09:30		Niha	OK
4	P4638-02DUP	COMPDUP	DUP	11/04/24 09:30		Niha	OK
5	P4649-01	MC0JZ7	SAM	11/04/24 09:30		Niha	OK
6	P4649-02	MC0JZ9	SAM	11/04/24 09:30		Niha	OK
7	P4649-03	MC0K01	SAM	11/04/24 09:30		Niha	OK
8	P4649-04	MC0K04	SAM	11/04/24 09:30		Niha	OK
9	P4649-05	MC0K06	SAM	11/04/24 09:30		Niha	OK
10	P4649-06	MC0K08	SAM	11/04/24 09:30		Niha	OK
11	P4649-07	MC0K10	SAM	11/04/24 09:30		Niha	OK
12	P4649-08	MC0K12	SAM	11/04/24 09:30		Niha	OK
13	P4649-09	MC0K14	SAM	11/04/24 09:30		Niha	OK
14	P4649-10	MC0K16	SAM	11/04/24 09:30		Niha	OK
15	P4649-11	MC0K18	SAM	11/04/24 09:30		Niha	OK
16	P4649-12	MC0K20	SAM	11/04/24 09:30		Niha	OK
17	P4649-13	MC0K22	SAM	11/04/24 09:30		Niha	OK
18	P4674-01	OUTFALL-001	SAM	11/04/24 09:30		Niha	OK

### Prep Standard - Chemical Standard Summary

Order ID : P4649

Test : TSS

Prepbatch ID :

Sequence ID/Qc Batch ID: LB133266,

Standard ID :

Chemical ID :

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13

### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
				/	/	

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13



# SHIPPING DOCUMENTS

1
2
3
4
5
6
7
8
9
10
11
12
13

## USEPA CLP COC (LAB COPY)

DateShipped: 10/30/2024

CarrierName: FedEx

AirbillNo: 779630334693

## CHAIN OF CUSTODY RECORD

DAS #: R36720

Cooler #: TSS SW/TW

No: 3-103024-145313-0081

Lab: Chemtech Lab

Lab Contact: Yazmeen Gomez

Lab Phone: (908) 728-3147

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ET-TW-01-20241029	MC0JZ7	Treatment Water/ START	Grab	TSS(14)	2890 (4 C) (1)	TW-01	10/29/2024 12:20	
ET-TW-02-20241029	MC0JZ9	Treatment Water/ START	Grab	TSS(14)	2894 (4 C) (1)	TW-02	10/29/2024 12:30	
ET-TW-03-20241029	MC0K01	Treatment Water/ START	Grab	TSS(14)	2898 (4 C) (1)	TW-03	10/29/2024 12:45	
ET-TW-04-20241029	MC0K04	Treatment Water/ START	Grab	TSS(14)	2905 (4 C) (1)	TW-04	10/29/2024 12:40	
ET-WW-01-20241029	MC0K06	Waste Water/ START	Grab	TSS(14)	2909 (4 C) (1)	WW-01	10/29/2024 12:05	
ET-WW-02-20241029	MC0K08	Waste Water/ START	Grab	TSS(14)	2913 (4 C) (1)	WW-02	10/29/2024 11:20	
ET-WW-04-20241029	MC0K10	Waste Water/ START	Grab	TSS(14)	2917 (4 C) (1)	WW-04	10/29/2024 10:20	
ET-WW-05-20241029	MC0K12	Waste Water/ START	Grab	TSS(14)	2923 (4 C) (1)	WW-05	10/29/2024 11:05	
ET-WW-06-20241029	MC0K14	Waste Water/ START	Grab	TSS(14)	2927 (4 C) (1)	WW-06	10/29/2024 11:50	
ET-WW-08-20241029	MC0K16	Waste Water/ START	Grab	TSS(14)	2931 (4 C) (1)	WW-08	10/29/2024 10:40	

Special Instructions: TSS SW/TW	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #
Analysis Key: TSS=Total Suspended Solids	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>[Signature]</i> START	10/30/24 1600	<i>[Signature]</i>	10-31-24 945	IR-Gen 1 38°
					Custody Seal Intact
					Top BLK present

## USEPA CLP COC (LAB COPY)

DateShipped: 10/30/2024

CarrierName: FedEx

AirbillNo: 779630334693

## CHAIN OF CUSTODY RECORD

DAS #: R36720

Cooler #: TSS SW/TW

No: 3-103024-145313-0081

Lab: Chemtech Lab

Lab Contact: Yazmeen Gomez

Lab Phone: (908) 728-3147

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ET-SW-01-20241029	MC0K18	Surface Water/ START	Grab	TSS(14)	2935 (4 C) (1)	SW-01	10/29/2024 12:55	
ET-SW-02-20241029	MC0K20	Surface Water/ START	Grab	TSS(14)	2939 (4 C) (1)	SW-02	10/29/2024 11:35	
ET-SW-04-20241029	MC0K22	Surface Water/ START	Grab	TSS(14)	2945 (4 C) (1)	SW-04	10/29/2024 09:45	
ET-DUP-01-20241029	MC0K24	Waste Water/ START	Grab	TSS(14)	2950 (4 C) (1)	DUP-01	10/29/2024 10:00	Empty

Special Instructions: TSS SW/TW	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #
Analysis Key: TSS=Total Suspended Solids	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>[Signature]</i> START	10/30/24 1600	<i>[Signature]</i>	945 10-31-24	IR-Cont 1 38 <sup>+</sup> Custody Seal Intact Temp Blk present

**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