

ANALYTICAL RESULTS SUMMARY

GENERAL CHEMISTRY
METALS

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : Q1588

ATTENTION : Nathan Fretz



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q1588

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number

Q1588-01

Client Sample Number

TAPFTA-MW01D-031425-00-T1

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 :

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:04 pm, Mar 28, 2025

Date: 3/28/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Weston Solutions

Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Project # N/A

Chemtech Project # Q1588

Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:

1 Water sample was received on 03/17/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Hardness, Total, Mercury, Metals ICP-TAL, METALS-TAL and TOC. This data package contains results for Metals ICP-TAL,Mercury.

C. Analytical Techniques:

The analysis of Metals ICP-TAL was based on method 6020B, digestion based on method 3010 (waters). The analysis and digestion of Mercury was based on method 7470A.

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 (FRAC-TANK-FMI120MS) analysis met criteria for all samples except for Mercury due to matrix interference.

The Matrix Spike (TAPFTA-MW01D-031425-00-T1MS) analysis met criteria for all samples except for Arsenic, Barium, Calcium, Copper, Manganese, Potassium, Silver due to matrix interference.

The Matrix Spike Duplicate (FRAC-TANK-FMI120MSD) analysis met criteria for all samples except for Mercury due to matrix interference.

The Matrix Spike Duplicate (TAPFTA-MW01D-031425-00-T1MSD) analysis met criteria for all samples except for Arsenic, Copper, Manganese, Potassium, Silver, Zinc due to matrix interference.

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

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Calculations:

Calculation for ICP-MS Water Sample:

$$\text{Concentration or Result } (\mu\text{g/L}) = C \times \frac{V_f}{V_i} \times DF$$

Where,

C = Instrument value in ppb (The average of all replicate integrations)

Vf = Final digestion volume (mL)

Vi = Initial aliquot amount (mL) (Sample amount taken in prep)

DF = Dilution Factor

Calculation for Hg Water Sample:

Concentration or Result ($\mu\text{g/L}$) = C x DF

Where,

C = Instrument response in $\mu\text{g/L}$ from the calibration curve.

DF = Dilution Factor

F. Additional Comments:

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

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 _____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:04 pm, Mar 28, 2025



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

CASE NARRATIVE

Weston Solutions

Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Project # N/A

Chemtech Project # Q1588

Test Name: TOC

A. Number of Samples and Date of Receipt:

1 Water sample was received on 03/17/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Hardness, Total, Mercury, Metals ICP-TAL, METALS-TAL and TOC. This data package contains results for TOC.

C. Analytical Techniques:

The analysis of TOC was based on method 9060A.

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.

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 _____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:04 pm, Mar 28, 2025

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 #: Q1588

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: MOHAMMAD AHMED

Date: 03/28/2025

Hit Summary Sheet SW-846

SDG No.:	Q1588	Order ID:	Q1588
Client:	Weston Solutions	Project ID:	Ft Meade Tipton Airfield Parcel RI - PO 01

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : TAPFTA-MW01D-031425-00-T1									
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Aluminum	2870		1.94	10.0	20.0	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Antimony	0.27	J	0.11	0.25	2.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Arsenic	2.55	JD	0.45	1.25	5.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Barium	58.2		0.21	1.25	10.0	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Beryllium	1.48		0.32	0.75	1.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Calcium	4350		45.7	190	500	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Chromium	24.7		0.21	0.75	2.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Cobalt	4.32		0.070	0.25	1.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Copper	18.3		0.30	1.50	2.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Iron	6310		7.81	25.0	50.0	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Lead	8.21		0.21	0.75	1.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Magnesium	893		19.5	190	500	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Manganese	81.9		0.43	0.75	1.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Nickel	11.2		0.27	0.75	1.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Potassium	1470		36.4	190	500	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Sodium	15300		128	190	500	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Thallium	0.14	J	0.060	0.50	1.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Vanadium	86.5		0.077	0.25	5.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Zinc	25.0		1.25	1.50	5.00	ug/L
Q1588-01	TAPFTA-MW01D-031425-00-T1	Water	Hardness, Total	14500		194	1260	3310	ug/L



SAMPLE DATA

Report of Analysis

Client:	Weston Solutions	Date Collected:	03/14/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/17/25
Client Sample ID:	TAPFTA-MW01D-031425-00-T1	SDG No.:	Q1588
Lab Sample ID:	Q1588-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2870		1	1.94	10.0	20.0	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-36-0	Antimony	0.27	J	1	0.11	0.25	2.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-38-2	Arsenic	2.55	JDN	5	0.45	1.25	5.00	ug/L	03/17/25 18:05	03/24/25 16:04	SW6020	3010A
7440-39-3	Barium	58.2	N	1	0.21	1.25	10.0	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-41-7	Beryllium	1.48		1	0.32	0.75	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-43-9	Cadmium	0.50	U	1	0.34	0.50	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-70-2	Calcium	4350	N	1	45.7	190	500	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-47-3	Chromium	24.7		1	0.21	0.75	2.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-48-4	Cobalt	4.32		1	0.070	0.25	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-50-8	Copper	18.3	N	1	0.30	1.50	2.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
Hardness	Hardness, Total	14500		1	194	1260	3310	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7439-89-6	Iron	6310		1	7.81	25.0	50.0	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7439-92-1	Lead	8.21		1	0.21	0.75	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7439-95-4	Magnesium	893		1	19.5	190	500	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7439-96-5	Manganese	81.9	N	1	0.43	0.75	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7439-97-6	Mercury	0.16	UN	1	0.076	0.16	0.20	ug/L	03/18/25 08:35	03/18/25 14:28	SW7470A	
7440-02-0	Nickel	11.2		1	0.27	0.75	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-09-7	Potassium	1470	N	1	36.4	190	500	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	14.5	22.5	25.0	ug/L	03/17/25 18:05	03/24/25 16:04	SW6020	3010A
7440-22-4	Silver	0.50	UN	1	0.060	0.50	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-23-5	Sodium	15300		1	128	190	500	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-28-0	Thallium	0.14	J	1	0.060	0.50	1.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-62-2	Vanadium	86.5		1	0.077	0.25	5.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A
7440-66-6	Zinc	25.0	N	1	1.25	1.50	5.00	ug/L	03/17/25 18:05	03/23/25 17:15	SW6020	3010A

Color Before:	Brown	Clarity Before:	Cloudy	Texture:
Color After:	Colorless	Clarity After:	Clear	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

LAB CHRONICLE

OrderID:	Q1588	OrderDate:	3/17/2025 10:02:00 AM
Client:	Weston Solutions	Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	Location:	I41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1588-01	TAPFTA-MW01D-0314 25-00-T1	Water			03/14/25			03/17/25
			Mercury	7470A		03/18/25	03/18/25	
			Metals ICP-TAL	6020B		03/17/25	03/23/25	
			Metals ICP-TAL	6020B		03/17/25	03/24/25	



SAMPLE DATA

Report of Analysis

Client:	Weston Solutions	Date Collected:	03/14/25 13:25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/17/25
Client Sample ID:	TAPFTA-MW01D-031425-00-T1	SDG No.:	Q1588
Lab Sample ID:	Q1588-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	10.4		1	0.40	0.50	1.00	mg/L		03/19/25 12:15	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

LAB CHRONICLE

OrderID:	Q1588	OrderDate:	3/17/2025 10:02:00 AM
Client:	Weston Solutions	Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	Location:	I41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1588-01	TAPFTA-MW01D-0314 25-00-T1	WATER	TOC	9060A	03/14/25 13:25		03/19/25 12:15	03/17/25



SHIPPING DOCUMENTS

Q1588

7
7.1



Weston COC ID
Weston_20250314_1429

Chain of Custody Record/Lab Work Request

Page	1	of	1
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Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	Project POC:	Nathan Fretz
PO Number	0111169	Phone:	484-524-5665
W.O. #:		POC e-mail:	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	Lab POC:	Yazmeen Gomez
TAT (days):	10	Lab Phone:	908-728-3144
Lab Address:	284 Sheffield Street, Mountainside, NJ 07092		

Matrix Codes	
SS - Soil	
SE - Sediment	
SO - Solid	
SL - Sludge	
GW - Groundwater	
W - Water	
SB - Soil Boring	
A - Air	
DS - Drum Solids	
DL - Drum Liquids	
L - EP/TCLP Leachate	
WI - Wipe	
X - Other	
F - Fish	

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

Analyses Requested:	Hardness by EPA 200.7 & SM2340B	TOC by EPA 9060A/Lloyd Kahn	Metals w Hg by EPA 6020B/7470A															
	Container Type:	Plastic	Vial	Plastic														
	Container Size:	1 L	40 mL	500 mL														
	Preservative:	HNO3 to pH <	H2SO4 to < 2	HNO3 to pH <														

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected												Special Instructions/Comments
1	TAPFTA-MW01D-031425-00-T1	g	GW	4	no	3/14/2025	13:25	X	X	X									elevated turbidity noted
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Shipping Airbill Number:					Cooler Number: 1 of 1				
Relinquished By	Date	Time	Received By	Date	Time	Additional Comments			
1.) [Signature]	3/14/25	1450	[Signature]	3-17-25	0700	QSM 6.0 Compliant			
2.)						Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD			
3.)						2.2 ^c			

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