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CASE NARRATIVE

US Army Corp of Engineers

Project Name: USACE NAB Sediment Project 25

Project # N/A

Order ID # Q2085

Test Name: Mercury, Metals ICP-Group

A. Number of Samples and Date of Receipt:

8 Solid samples were received on 05/20/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Ammonia, Mercury, Metals Group2, Metals ICP-Group, Phosphorus, Total, TKN and TOC. This data package contains results for Mercury, Metals ICP-Group.

C. Analytical Techniques:

The analysis of Metals ICP-Group was based on method 6020B, 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.

The Blank Spike met requirements for all samples.

The Duplicate (SC-1-SED-051625DUP) analysis met criteria for all samples except for Antimony and Zinc due to sample matrix interference.

The Matrix Spike (SC-1-SED-051625MS) analysis met criteria for all samples except for Aluminum, Arsenic, Iron and Silver due to Chemical Interference during digestion process.

The Matrix Spike Duplicate (SC-1-SED-051625MSD) analysis met criteria for all samples except for Aluminum, Arsenic, Iron and Silver 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:

The Post Digest Spike (SC-1-SED-051625A) analysis met criteria for all samples except for Aluminum, Arsenic, Iron and Silver, due to unknown chemical interferences of matrix with the addition of spike amount after digestion and before analysis, matrix has suppression effect during addition of spike.

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_____