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## **CASE NARRATIVE**

**Weston Solutions, Inc.**

**Project Name: RFP 905**

**Project # N/A**

**Chemtech Project # Q1664**

**Test Name: Metals ICP-TAL,Mercury**

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

22 Solid samples were received on 03/27/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Cyanide, EPH, Mercury, Metals ICP-TAL, METALS TAL+CN, PCB, Pesticide-TCL, SPLP BNA, SPLP Cyanide, SPLP Extraction, SPLP ICP Metals, SPLP Mercury, SPLP PCB, SPLP Pesticide, SPLP VOA, SPLP ZHE Ext, SVOC-TCL BNA -20 and VOC-TCLVOA-10. 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.

The Blank Spike met requirements for all samples.

The Duplicate (P001-BBDGA-001-01DUP) analysis met criteria for all samples except for Copper due to matrix interference.

The Duplicate (P001-BBDGA-001-01MSD) analysis met criteria for all samples except for Copper due to matrix interference..

The Matrix Spike (P001-BBDGA-001-01MS) analysis met criteria for all samples except for Antimony, Barium due to matrix interference.

The Matrix Spike Duplicate (P001-BBDGA-001-01MSD) analysis met criteria for all samples except for Antimony, Zinc due to matrix interference.

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

The Calibration met the requirements.

The Serial Dilution (P001-BBDGA-001-01L) met criteria for all samples except for Chromium, Copper due to unknown interference.

### **E. Calculation:**

#### **Calculation for ICP-AES Soil Sample:**

Conversion of Results from mg/L or ppm to mg/kg (Dry Weight Basis):



$$\text{Concentration (mg/kg)} = \frac{C \times V_f}{W \times S} \times DF$$

Where,

C = Instrument value in ppm (The average of all replicate exposures)

Vf = Final digestion volume (mL)

W = Initial aliquot amount (g) (Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

### Calculation for Hg Soil Sample:

Conversion of Results from  $\mu\text{g/L}$  or ppb to mg/kg :

$$\text{Concentration (mg/kg)} = \frac{C \times V_f}{W \times S} \times DF / 1000$$

Where,

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

Vf = Final prepared (absorbing solution) volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

### F. Additional Comments:

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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\_\_\_\_\_