



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

## **CASE NARRATIVE**

**Langan Engineering and Environmental Services, Inc**

**Project Name: Con Edison Richmond Terrace**

**Project # N/A**

**Order ID # Q3310**

**Test Name: VOC-TCLVOA-10,SVOC-TCL BNA -20,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL**

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

3 Solid samples were received on 10/08/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10,SVOC-TCL BNA -20,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL. This data package contains results for VOC-TCLVOA-10(8260D),SVOC-TCL BNA -20(8270E),PCB(8082A),Pesticide-TCL(8081B),Mercury(7471B),Metals ICP-TAL(6010D).

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

VOC-TCLVOA-10 : The analysis performed on instrument MSVOA\_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of VOC-TCLVOA-10 was based on method 8260D.

SVOC-TCL BNA -20 : The samples were analyzed on instrument BNA\_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um df. The analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3541.

Pesticide-TCL : The analysis was performed on instrument ECD\_L. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,,: Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11.The analysis of Pesticide-TCLs was based on method 8081B and extraction was done based on method 3541.

PCB : The analyses were performed on instrument GCECD\_P. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.



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Mercury, Metals ICP-TAL : 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 Surrogate recoveries were met for all analysis.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except following

Pesticide-TCL : The MS {Q3310-01MS} with File ID: PL097602.D recoveries met the requirements for all compounds except for [Endrin ketone(1) - 51%] due to matrix interference.

Mercury, Metals ICP-TAL : The Matrix Spike (OR-02-100925MS) analysis met criteria for all compounds except for Antimony and Potassium due to Chemical Interference during Digestion process.

The MSD recoveries met the requirements for all compounds except following

Pesticide-TCL : The MSD {Q3310-01MSD} with File ID: PL097603.D recoveries met the requirements for all compounds except for [Endrin ketone(2) - 53%] due to matrix interference.

Mercury, Metals ICP-TAL : The Matrix Spike Duplicate (72-11989MSD) analysis met criteria for all compounds except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (OR-02-100925MSD) analysis met criteria for all compounds except for Antimony, Copper, Potassium and Sodium due to Chemical Interference during Digestion Process.

The RPD were met for all analysis except following

SVOC-TCL BNA -20 : The RPD for {Q3310-01MSD} with File ID: BF143929.D met criteria except for 2,4-Dinitrophenol[44%], 4,6-Dinitro-2-methylphenol[49%] and Hexachlorocyclopentadiene[21%] due to difference in MS and MSD concentrations.

PCB : The RPD for {Q3310-02MSD} with File ID: PP075717.D met criteria except for [AR1260(1)-27%],[AR1260(2)-19%] due to difference in MSMSD concentrations.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

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

The Initial Calibration met the requirements except following



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SVOC-TCL BNA -20 : The %RSD is greater than 20% in the Initial Calibration (Method 8270-BF100625.M) for 2,4-Dinitrophenol, this Compounds is passing on Linear regression.

The Continuous Calibration met the requirements except following  
PCB : The Continuous Calibration File ID PP075704.D met the requirements except for Tetrachloro-m-xylene is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken.

The Tuning criteria met requirements.

Mercury,Metals ICP-TAL : Sample SS-01-0-1 was diluted due to high concentrations for Mercury & Sample SS-01-1-2 was diluted due to high concentrations for Mercury & Sample SS-01-2-3 was diluted due to high concentrations for Mercury.

The Duplicate analysis met criteria for all samples.

The Serial Dilution met the acceptable requirements.

#### **E. Additional Comments:**

The soil samples results are based on a dry weight basis.

Mercury,Metals ICP-TAL : The Post Digest Spike (OR-02-100925A) analysis met criteria for all compounds except for Antimony, Copper, Potassium and Sodium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike. Sample Q3310-03 was oversaturated for Silver parameter so silver reported from its 2X Dilution.

VOC-TCLVOA-10 : Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.  
Trip Blank was not provided with this set of samples.

#### **F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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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\_\_\_\_\_