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CASE NARRATIVE

Remington & Vernick Engineers
Project Name: Edison Landfill
Project # N/A
Order ID # Q3586
Test Name: VOC-TCLVOA-10,SVOC-TCL BNA -20,EPH,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL,Cyanide,Hexavalent Chromium

A. Number of Samples and Date of Receipt:
3 Solid samples were received on 11/07/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10,SVOC-TCL BNA -20,EPH,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL,Cyanide,Hexavalent Chromium. This data package contains results for VOC-TCLVOA-10(8260D),SVOC-TCL BNA -20(8270E),EPH(NJEPH),PCB(8082A),Pesticide-TCL(8081B),Mercury(7471B),Metals ICP-TAL(6010D),Cyanide(9012B),Hexavalent Chromium(7196A).

C. Analytical Techniques:
VOC-TCLVOA-10 : The analysis performed on instrument MSVOA_W were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.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 samples were analyzed on instrument BNA_G using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. The samples were analyzed on instrument BNA_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. The analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3541.

PCB : The analyses were performed on instrument GCECD_O. 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.

Pesticide-TCL : The analysis was performed on instrument ECD_D. 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.

EPH : The analysis were performed on instrument FID_G. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302.The analysis were performed on instrument FID_F. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302.The analysis of EPHs was based on method NJEPH and extraction was done based on method 3541.

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.

Wetchem : The analysis of Cyanide,Hexavalent Chromium was based on method 7196A,9012B.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis except following
VOC-TCLVOA-10 : The Surrogate recoveries were met for all analysis except for,

SED-1 [1,2-Dichloroethane-d4 - 138%] , SED-2 [4-Bromofluorobenzene - 135%], SED-2RE [Dibromofluoromethane - 133%]these compounds did not meet the NJDKQP criteria but met the in-house criteria while,

SED-1[4-Bromofluorobenzene - 197%], SED-1RE [4-Bromofluorobenzene - 67%], SED-2 [1,2-Dichloroethane-d4 - 161%], SED-2RE [1,2-Dichloroethane-d4 - 177%]these compounds did not meet the NJDKQP criteria and in-house criteria, samples were reanalyzed to confirm the failure and reported.

The Surrogate recoveries were met for all analysis except following
Pesticide-TCL : SED-2 [Decachlorobiphenyl(1)25%, Decachlorobiphenyl(2)27%]these compounds did not meet the NJDKQP criteria but met the in-house criteria.

The Internal Standards Areas were met for all analysis except following VOC-TCLVOA-10 : SED-1RE and SED-2RE samples were reanalyzed to confirm the failure and reported.

The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds except following
SVOC-TCL BNA -20 : The MS {Q3586-03MS} with File ID: BP026093.D recoveries met the requirements for all compounds except for 3,3-Dichlorobenzidine[67%], 3-

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Nitroaniline[58%] and 4-Chloroaniline[39%], This compound did not meet the NJDKQP criteria but met the in-house criteria.

EPH : The MS {Q3586-03MS} with File ID: FG016960.D recoveries met the requirements for all compounds except for Aliphatic [Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes are only being monitoring in aliphatic fraction.

The MS {Q3586-03MS} with File ID: FF016726.D recoveries met the requirements for all compounds except for Aromatic [Benzo[a]anthracene (C26.37)- 171%], Bnezo[k]fluoranthene (C30.14)- 147%], [benzo[b]fluoranthene (C30.41)- 162%] and [Indeno[1,2,3-cd]pyrene (C35.01)- 213%] due to matrix interference.

Mercury,Metals ICP-TAL : The Matrix Spike (VNJ-238MS) analysis met criteria for all compounds except for Antimony, Copper, Selenium, Silver, Sodium and Vanadium due to Chemical Interference during Digestion process.

The MSD recoveries met the requirements for all compounds except following
SVOC-TCL BNA -20 : The MSD {Q3586-03MSD} with File ID: BP026094.D recoveries met the requirements for all compounds except for 3-Nitroaniline[58%], 4-Chloroaniline[36%], This compound did not meet the NJDKQP criteria but met the in-house criteria.

EPH : The MSD {Q3586-03MSD} with File ID: FG016961.D recoveries met the requirements for all compounds except for Aliphatic [n-Nonane (C9)- 39%] due to matrix interference. And for Aliphatic[Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes are only being monitoring in aliphatic fraction.

The MSD {Q3586-03MSD} with File ID: FF016727.D recoveries met the requirements for all compounds except for Aromatic [Benzo[a]anthracene (C26.37)- 176%], [Chrysene (C27.41)- 142%], [Bnezo[k]fluoranthene (C30.14)- 151%], [Dibenz[a,h]anthracene (C30.36)- 144%], [benzo[b]fluoranthene (C30.41)- 166%] and [Indeno[1,2,3-cd]pyrene (C35.01)- 220%] due to matrix interference.

Mercury,Metals ICP-TAL : The Matrix Spike Duplicate (VNJ-238MSD) analysis met criteria for all compounds except for Antimony, Copper, Selenium, Silver and Vanadium due to Chemical Interference during Digestion process.

The RPD recoveries met criteria.
The Blank Spike met requirements for all compounds except following
SVOC-TCL BNA -20 : The Blank Spike for {PB170478BS} with File ID: BF144200.D met requirements for all compounds except for 3-Nitroaniline[59%], 4-Chloroaniline[50%]. , This compound did not meet the NJDKQP criteria but met the in-house criteria.

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The Blank Spike Duplicate met requirements for all compounds

The Blank Spike met requirements for all compounds except following
EPH : The Blank Spike for {PB170577BS} with File ID: FG016927.D met requirements for all samples except for aliphatic [Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)-0%], these analytes compounds are only being monitoring in aliphatic fraction.

The Blank Spike Duplicate met requirements for all compounds except following
EPH : The Blank Spike Duplicate for {PB170577BSD} with File ID: FG016928.D met requirements for all samples except for aliphatic
[Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes compounds are only being monitoring in aliphatic fraction.

The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements except following
SVOC-TCL BNA -20 : The %RSD is greater than 20% in the (Method 8270-BF110525.M) for Hexachlorocyclopentadiene is passing on Quadratic regression.

The %RSD is greater than 20% in the Initial Calibration (Method 8270-BP102925.M) for 26) 2-Nitrophenol, 2-Nitroaniline, 2,6-Dinitrotoluene, 3-Nitroaniline,2,4-Dinitrotoluene,Butylbenzylphthalate,Bis(2-ethylhexyl)phthalate, These Compounds are passing on Linear regression and 2,4-Dinitrophenol,4,6-Dinitro-2-methylph.. are passing on Quadratic regression.

The Continuous Calibration met the requirements except following
VOC-TCLVOA-10 : The Continuous Calibration File ID VY023752.D met the requirements except for 2-Hexanone is failing high but no positive hit in associate sample therefore no corrective action taken.

SVOC-TCL BNA -20 : The Continuous Calibration File ID BF144198.D met the requirements except for Benzaldehyde. Associated samples does not have hit for this compound, Therefor no further corrective action was taken.

The Continuous Calibration File ID BP026090.D met the requirements except for 2,3,4,6-Tetrachlorophenol,2,4-Dinitrophenol,2,4-Dinitrotoluene,2-Nitrophenol,4,6-Dinitro-2-methylphenol,Butylbenzylphthalate,Di-n-octyl phthalate, Hexachlorocyclopentadiene and 2,4,6-Tribromophenol. Associated samples does not have hit for this compound, Therefor no further corrective action was taken. and Bis(2-ethylhexyl)phthalate faild high in Continuous Calibration, but associates sample has below CRQL hit, Therefor no further corrective action was taken.

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The Tuning criteria met requirements.

The Duplicate analysis met criteria for all compoundsexcept following Mercury,Metals ICP-TAL : The Duplicate (VNJ-238MSD) analysis met criteria for all compounds except for Copper and Zinc due to Chemical Interference during Digestion process.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:
The soil samples results are based on a dry weight basis.

SEMI-VOA : The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

Mercury,Metals ICP-TAL : The Post Digest Spike (VNJ-238A) analysis met criteria for all compounds except for Sodium and Vanadium 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.

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.

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_____