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

CASE NARRATIVE

ENTACT
Project Name: Whittaker Coatings Site – E9125B
Project # N/A
Order ID # Q3618
Test Name: VOC-TCLVOA-10,SVOC-SIMGroup1,SVOC-TCL BNA -20, EPH,Herbicide,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL, Cyanide, Hexavalent Chromium,pH,TOC,Trivalent Chromium

A. Number of Samples and Date of Receipt:
2 Solid samples were received on 11/12/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10,SVOC-SIMGroup1,SVOC-TCL BNA -20,EPH, Herbicide, PCB, Pesticide-TCL,Mercury,Metals ICP-TAL,Cyanide,Hexavalent Chromium,pH,TOC, Trivalent Chromium. This data package contains results for VOC-TCLVOA-10(8260D), SVOC-SIMGroup1(8270-Modified),SVOC-TCL BNA -20(8270E), EPH(NJEPH), Herbicide(8151A),PCB(8082A),Pesticide-TCL(8081B),Mercury(7471B),Metals ICP-TAL(6010D),Cyanide(9012B),Hexavalent Chromium(7196A),pH(9045D), TOC (9060A), Trivalent Chromium(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 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.

SVOC-SIMGroup1 : 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_N 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-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3541.

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Herbicide : The analysis was performed on instrument ECD_S. The front column is RTX-CLPesticides which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 11139. The rear column is RTX-CLPesticides2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 11324. The analysis of Herbicides was based on method 8151A 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.

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.

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 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.

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 Trivalent Chromium was based on method 6010D, The analysis of Hexavalent Chromium was based on method 7196A, The analysis of Cyanide was based on method 9012B, The analysis of pH was based on method 9045D and The analysis of TOC was based on method 9060A.

D. QA/ QC Samples:

The Holding Times were met for all analysis except following Wetchem : EME-GENERAL-FILL of pH and for EME-TOP-SOIL of pH as samples were receive out of holding time.

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The Surrogate recoveries were met for all analysis except following
SVOC-SIMGroup1 : PB170590BS [2-Fluorobiphenyl - 122%], marginally high The associate samples have no positive hit for these compounds therefore no corrective action was taken.

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
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

PCB : The MS {Q3609-07MS} with File ID: PO115077.D recoveries met the requirements for all compounds except for [AR1016(1)440% - AR1016(2)218%] and [AR1260(2)164%] due to matrix interference.

Mercury,Metals ICP-TAL : The Matrix Spike (AU-713-COMP-01MS) analysis met criteria for all compounds except for Antimony, Potassium, Selenium, Sodium, Vanadium and Zinc due to Chemical Interference during Digestion process. The Matrix Spike (COMP-3MS) analysis met criteria for all compounds except for Mercury due to Sample matrix interference.

The MSD recoveries met the requirements for all compounds except following
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

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PCB : The MSD {Q3609-07MSD} with File ID: PO115078.D recoveries met the requirements for all compounds except for [AR1016(1)456% - AR1016(2)213%] and [AR1260(2)170%] due to matrix interference.

Mercury,Metals ICP-TAL : The Matrix Spike Duplicate (AU-713-COMP-01MSD) analysis met criteria for all compounds except for Antimony, Barium, Potassium, Selenium, Sodium, Vanadium and Zinc due to Chemical Interference during Digestion process.

The RPD were met for all analysis except following
VOC-TCLVOA-10 : The RPD for {VY1113SBSD01} with File ID: VY023777.D met criteria except for 1,2,3-Trichlorobenzene[20%],Due to difference in result of BS-BSD.

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 Initial Calibration (Method 8270- BG111225.M) for 2,4-Dinitrophenol, Pentachlorophenol, These Compounds are passing on Linear regression.

The %RSD is greater than 20% in the Initial Calibration (Method 8270-BP102925.M) for 2-Nitrophenol, 2-Nitroaniline, 2,6-Dinitrotoluene, 3-Nitroaniline, 2,4-Dinitrotoluene, Butylbenzylphthalate, Bis(2-ethylhexyl)phtha, 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 VY023774.D met the requirements except for 4-Bromofluorobenzene which is not our target compound, therefore no corrective action taken.

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SVOC-TCL BNA -20 : The %RSD is greater than 20% in the Initial Calibration (Method 8270- BG111225.M) for 2,4-Dinitrophenol, Pentachlorophenol, These Compounds are passing on Linear regression

The Continuous Calibration File ID BP026126.D met the requirements except for 2,3,4,6-Tetrachlorophenol,2,4-Dinitrophenol,2-Nitrophenol,4,6-Dinitro-2-methylphenol, Di-n-octyl phthalate and 2,4,6-Tribromophenol, failing high but
The associate samples have no positive hit for these compounds therefore no corrective action was taken.

The Tuning criteria met requirements.

The Duplicate analysis met criteria for all compounds except following
Mercury,Metals ICP-TAL : The Duplicate (AU-713-COMP-01MSD) analysis met criteria for all compounds except for Iron, Manganese, Sodium and Zinc due to Chemical Interference during Digestion process.

Wetchem : The Duplicate (AU-713-COMP-01DUP) analysis met criteria for all compounds except for Hexavalent Chromium due to the results are below Reporting limit.

The Serial Dilution met the acceptable requirements.

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

Cyanide,Hexavalent Chromium,pH,TOC,Trivalent Chromium : Lab has used least representable sample weight for the Q3618-01 for TOC analysis. Therefore Lab has reported the TOC result with "OR" qualifier.

Mercury,Metals ICP-TAL : In analytical Sequence LB137889, The % Recovery outside limit for Potassium and Sodium for CCV06 and CCV07 but, no any sample associated under this CCVs.
In analytical Sequence LB137889, The Result outside limit for Potassium and Sodium for CCB06 and CCB07 but, no any sample associated under this CCBs.

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_____