

CASE NARRATIVE

Tetra Tech, EMI

Project Name: R36719

Project # N/A

Chemtech Project # P5296

Test Name: TO-15

A. Number of Samples and Date of Receipt:

3 Air samples were received on 12/13/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested:
TO-15. This data package contains results for TO-15.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator. The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD for {P5293-01DUP} with File ID: VL041798.D met criteria except for Hexane[33.3%], m/p-Xylene[200%] due to difference in results of Original and DUP.
The Blank Spike met requirements for all samples .

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

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

E. Additional Comments:

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

The not QT review data is reported in the Miscellaneous.

The Manual Integrations are performed for the followings :

Manual Integration Report			
Sequence	VL121624	Instrument	MSVOA_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
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VSTDICCC010	VL041752.D	m/p-Xylene	SAM	12/20/2024 4:34:05 AM	MMDadoda	12/20/2024 4:37:21 AM	Peak Integrated by Software incorrectly
VSTDICCC002	VL041753.D	1,4-Dioxane	SAM	12/20/2024 4:34:06 AM	MMDadoda	12/20/2024 4:37:23 AM	Peak Integrated by Software incorrectly
VSTDICCC002	VL041753.D	cis-1,3-Dichloropropene	SAM	12/20/2024 4:34:06 AM	MMDadoda	12/20/2024 4:37:23 AM	Peak Integrated by Software incorrectly
VSTDICCC002	VL041753.D	m/p-Xylene	SAM	12/20/2024 4:34:06 AM	MMDadoda	12/20/2024 4:37:23 AM	Peak Integrated by Software incorrectly
VSTDICCC001	VL041754.D	1,1,2-Trichloroethane	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
VSTDICCC001	VL041754.D	Carbon Tetrachloride	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
VSTDICCC001	VL041754.D	cis-1,3-Dichloropropene	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
VSTDICCC001	VL041754.D	Ethanol	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by

							Software incorrectl y
VSTDIC001	VL041754. D	m/p-Xylene	SA M	12/20/202 4 4:34:08 AM	MMDadod a	12/20/202 4 4:37:25 AM	Peak Integrate d by Software incorrectl y
VSTDIC001	VL041754. D	Methyl Methacrylate	SA M	12/20/202 4 4:34:08 AM	MMDadod a	12/20/202 4 4:37:25 AM	Peak Integrate d by Software incorrectl y
VSTDIC001	VL041754. D	Tetrachloroethene	SA M	12/20/202 4 4:34:08 AM	MMDadod a	12/20/202 4 4:37:25 AM	Peak Integrate d by Software incorrectl y
STDIC001	VL041754. D	Trichloroethene	SA M	12/20/202 4 4:34:08 AM	MMDadod a	12/20/202 4 4:37:25 AM	Peak Integrate d by Software incorrectl y
VSTDIC0.5	VL041755. D	1,1,1,2- Tetrachloroethane	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl y
VSTDIC0.5	VL041755. D	1,1,2-Trichloroethane	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl y
VSTDIC0.5	VL041755. D	1,2-Dibromoethane	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl y
VSTDIC0.5	VL041755. D	1,2-Dichloropropane	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl y
VSTDIC0.5	VL041755. D	1,4-Dioxane	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl

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VSTDICC0.5	VL041755.D	2,2,4-Trimethylpentane	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	4-Methyl-2-Pentanone	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	Benzyl Chloride	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	Bromodichloromethane	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	Bromoform	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	Chlorobenzene	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	cis-1,3-Dichloropropene	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	Ethanol	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	Heptane	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	m/p-Xylene	SA	12/20/2024	MMDadoda	12/20/2024	Peak

	D		M	4 4:34:10 AM	a	4 4:37:27 AM	Integrate d by Software incorrectl y
VSTDICC0.5	VL041755. D	t-1,3- Dichloropropene	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.5	VL041755. D	Trichloroethene	SA M	12/20/202 4 4:34:10 AM	MMDadod a	12/20/202 4 4:37:27 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.1	VL041756. D	1,1,2,2- Tetrachloroethane	SA M	12/20/202 4 4:34:11 AM	MMDadod a	12/20/202 4 4:37:28 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.1	VL041756. D	1,2-Dibromoethane	SA M	12/20/202 4 4:34:11 AM	MMDadod a	12/20/202 4 4:37:28 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.1	VL041756. D	Tetrachloroethene	SA M	12/20/202 4 4:34:11 AM	MMDadod a	12/20/202 4 4:37:28 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.1	VL041756. D	Trichloroethene	SA M	12/20/202 4 4:34:11 AM	MMDadod a	12/20/202 4 4:37:28 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.0 3	VL041757. D	1,1,1-Trichloroethane	SA M	12/20/202 4 4:34:12 AM	MMDadod a	12/20/202 4 4:37:30 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.0 3	VL041757. D	Carbon Tetrachloride	SA M	12/20/202 4 4:34:12 AM	MMDadod a	12/20/202 4 4:37:30 AM	Peak Integrate d by Software incorrectl y
VSTDICC0.0 3	VL041757. D	Tetrachloroethene	SA M	12/20/202 4 4:34:12 AM	MMDadod a	12/20/202 4 4:37:30 AM	Peak Integrate d by

							Software incorrectl y
VSTDIC0.03	VL041757.D	Trichloroethene	SAM	12/20/2024 4:34:12 AM	MMDadoda	12/20/2024 4:37:30 AM	Peak Integrated by Software incorrectl y
VSTDIC015	VL041758.D	m/p-Xylene	SAM	12/20/2024 4:34:14 AM	MMDadoda	12/20/2024 4:37:32 AM	Peak Integrated by Software incorrectl y
VSTDICV010	VL041759.D	1,1,2-Trichloroethane	SAM	12/20/2024 4:34:16 AM	MMDadoda	12/20/2024 4:37:35 AM	Peak Integrated by Software incorrectl y
VSTDICV010	VL041759.D	Ethanol	SAM	12/20/2024 4:34:16 AM	MMDadoda	12/20/2024 4:37:35 AM	Peak Integrated by Software incorrectl y
VSTDICV010	VL041759.D	m/p-Xylene	SAM	12/20/2024 4:34:16 AM	MMDadoda	12/20/2024 4:37:35 AM	Peak Integrated by Software incorrectl y

Manual Integration Report			
Sequence	vl121824	Instrument	MSVOA_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
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VSTDCCC010	VL041788.D	cis-1,3-Dichloropropene	SAM	12/19/2024 12:18:09 PM	MMDadoda	12/19/2024 2:45:22 PM	Peak Integrated by Software incorrectl y
VSTDCCC010	VL041788.D	Ethanol	SAM	12/19/2024 12:18:09 PM	MMDadoda	12/19/2024 2:45:22 PM	Peak Integrated by Software incorrectl y

VSTDCCC010	VL041788.D	m/p-Xylene	SAM	12/19/2024 12:18:09 PM	MMDadoda	12/19/2024 2:45:22 PM	Peak Integrated by Software incorrectly
VL1218ABS01	VL041795.D	m/p-Xylene	SAM	12/19/2024 12:19:16 PM	MMDadoda	12/19/2024 2:45:27 PM	Peak Integrated by Software incorrectly
P5293-01DUP	VL041798.D	2,2,4-Trimethylpentane	SAM	12/19/2024 12:19:02 PM	MMDadoda	12/19/2024 2:45:30 PM	Peak Integrated by Software incorrectly
P5293-01DUP	VL041798.D	Carbon Tetrachloride	SAM	12/19/2024 12:19:02 PM	MMDadoda	12/19/2024 2:45:30 PM	Peak Integrated by Software incorrectly
P5293-01DUP	VL041798.D	Chlorodifluoromethane	SAM	12/19/2024 12:19:02 PM	MMDadoda	12/19/2024 2:45:30 PM	Peak Integrated by Software incorrectly
P5293-01DUP	VL041798.D	m/p-Xylene	SAM	12/19/2024 12:19:02 PM	MMDadoda	12/19/2024 2:45:30 PM	Peak Integrated by Software incorrectly
P5293-01DUP	VL041798.D	Propene	SAM	12/19/2024 12:19:02 PM	MMDadoda	12/19/2024 2:45:30 PM	Peak Integrated by Software incorrectly
P5296-01	VL041801.D	Chlorodifluoromethane	SAM	12/19/2024 12:18:58 PM	MMDadoda	12/19/2024 2:45:36 PM	Peak Integrated by Software incorrectly
P5296-01	VL041801.D	Cyclohexane	SAM	12/19/2024 12:18:58 PM	MMDadoda	12/19/2024 2:45:36 PM	Peak Integrated by Software incorrectly
P5296-01	VL041801.D	m/p-Xylene	SAM	12/19/2024	MMDadoda	12/19/2024 2:45:36	Peak Integrated

				12:18:58 PM		PM	d by Software incorrectl y
P5296-01	VL041801.D	Propene	SAM	12/19/2024 12:18:58 PM	MMDadoda	12/19/2024 2:45:36 PM	Peak Integrated by Software incorrectl y
P5296-01	VL041801.D	tert-Butyl alcohol	SAM	12/19/2024 12:18:58 PM	MMDadoda	12/19/2024 2:45:36 PM	Peak Integrated by Software incorrectl y
P5296-01	VL041801.D	Toluene	SAM	12/19/2024 12:18:58 PM	MMDadoda	12/19/2024 2:45:36 PM	Peak Integrated by Software incorrectl y

Manual Integration Report			
Sequence	VL121924	Instrument	MSVOA_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC010	VL041818.D	Ethanol	SAM	12/20/2024 8:57:38 AM	MMDadoda	12/20/2024 10:53:06 AM	Peak Integrated by Software incorrectl y
VSTDCCC010	VL041818.D	m/p-Xylene	SAM	12/20/2024 8:57:38 AM	MMDadoda	12/20/2024 10:53:06 AM	Peak Integrated by Software incorrectl y
VSTDCCC010	VL041818.D	t-1,3-Dichloropropene	SAM	12/20/2024 8:57:38 AM	MMDadoda	12/20/2024 10:53:06 AM	Peak Integrated by Software incorrectl y
VL1219ABS01	VL041820.D	m/p-Xylene	SAM	12/20/2024 8:57:06 AM	MMDadoda	12/20/2024 10:53:09 AM	Peak Integrated by Software incorrectl y

P5296-03	VL041824.D	4-Methyl-2-Pentanone	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-03	VL041824.D	Benzene	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-03	VL041824.D	Carbon Tetrachloride	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-03	VL041824.D	Chlorodifluoromethane	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-03	VL041824.D	Cyclohexane	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-03	VL041824.D	Heptane	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-03	VL041824.D	Tetrachloroethene	SAM	12/20/2024 8:57:57 AM	MMDadoda	12/20/2024 10:53:16 AM	Peak Integrated by Software incorrectly
P5296-02	VL041825.D	4-Methyl-2-Pentanone	SAM	12/20/2024 8:57:16 AM	MMDadoda	12/20/2024 10:53:17 AM	Peak Integrated by Software incorrectly
P5296-02	VL041825.D	Benzene	SAM	12/20/2024 8:57:16 AM	MMDadoda	12/20/2024 10:53:17 AM	Peak Integrated by Software incorrectly
P5296-02	VL041825.D	Carbon Tetrachloride	SAM	12/20/2024	MMDadoda	12/20/2024 10:53:17	Peak Integrated

				8:57:16 AM		AM	d by Software incorrectl y
P5296-02	VL041825. D	Chlorodifluorometh ane	SAM	12/20/20 24 8:57:16 AM	MMDadoda	12/20/202 4 10:53:17 AM	Peak Integrate d by Software incorrectl y
P5296-02	VL041825. D	Tetrachloroethene	SAM	12/20/20 24 8:57:16 AM	MMDadoda	12/20/202 4 10:53:17 AM	Peak Integrate d by Software incorrectl y
P5296-02	VL041825. D	Tetrahydrofuran	SAM	12/20/20 24 8:57:16 AM	MMDadoda	12/20/202 4 10:53:17 AM	Peak Integrate d by Software incorrectl y

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_____