284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Cover Page

Order ID : P5293

Project ID : R36719

Client : Tetra Tech, EMI

Lab Sample Number	Client Sample Number
P5293-01	C0AB9
P5293-02	C0AC0
P5293-03	C0AC1

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. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 12/25/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Tetra Tech, EMI
Project Name: R36719
Project # N/A
Chemtech Project # P5293
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.

Sample C0AC1 was diluted due to high concentration.

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.

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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
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
VSTDICC002	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
VSTDICC002	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
VSTDICC002	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
VSTDICC001	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
VSTDICC001	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
VSTDICC001	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
VSTDICC001	VL041754.D	Ethanol	SAM	12/20/2024 4:34:08	MMDadoda	12/20/2024 4:37:25	Peak Integrate

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				AM		AM	d by Software incorrectly
VSTDICC001	VL041754.D	m/p-Xylene	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
VSTDICC001	VL041754.D	Methyl Methacrylate	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
VSTDICC001	VL041754.D	Tetrachloroethene	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
STDICC001	VL041754.D	Trichloroethene	SAM	12/20/2024 4:34:08 AM	MMDadoda	12/20/2024 4:37:25 AM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL041755.D	1,1,1,2-Tetrachloroethane	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	1,1,2-Trichloroethane	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	1,2-Dibromoethane	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	1,2-Dichloropropane	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	1,4-Dioxane	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software

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							incorrectly
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

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VSTDICC0.5	VL041755.D	m/p-Xylene	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	t-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	Trichloroethene	SAM	12/20/2024 4:34:10 AM	MMDadoda	12/20/2024 4:37:27 AM	Peak Integrated by Software incorrectly
VSTDICC0.1	VL041756.D	1,1,2,2-Tetrachloroethane	SAM	12/20/2024 4:34:11 AM	MMDadoda	12/20/2024 4:37:28 AM	Peak Integrated by Software incorrectly
VSTDICC0.1	VL041756.D	1,2-Dibromoethane	SAM	12/20/2024 4:34:11 AM	MMDadoda	12/20/2024 4:37:28 AM	Peak Integrated by Software incorrectly
VSTDICC0.1	VL041756.D	Tetrachloroethene	SAM	12/20/2024 4:34:11 AM	MMDadoda	12/20/2024 4:37:28 AM	Peak Integrated by Software incorrectly
VSTDICC0.1	VL041756.D	Trichloroethene	SAM	12/20/2024 4:34:11 AM	MMDadoda	12/20/2024 4:37:28 AM	Peak Integrated by Software incorrectly
VSTDICC0.03	VL041757.D	1,1,1-Trichloroethane	SAM	12/20/2024 4:34:12 AM	MMDadoda	12/20/2024 4:37:30 AM	Peak Integrated by Software incorrectly
VSTDICC0.03	VL041757.D	Carbon Tetrachloride	SAM	12/20/2024 4:34:12 AM	MMDadoda	12/20/2024 4:37:30 AM	Peak Integrated by Software incorrectly
VSTDICC0.03	VL041757.D	Tetrachloroethene	SAM	12/20/2024 4:34:12	MMDadoda	12/20/2024 4:37:30	Peak Integrate

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				AM		AM	d by Software incorrectly
VSTDICC0.03	VL041757.D	Trichloroethene	SAM	12/20/2024 4:34:12 AM	MMDadoda	12/20/2024 4:37:30 AM	Peak Integrated by Software incorrectly
VSTDICC015	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 incorrectly
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 incorrectly
VSTDICV010	VL041759.D	Ethanol	SAM	12/20/2024 4:34:16 AM	MMDadoda	12/20/2024 4:37:35 AM	Peak Integrated by Software incorrectly
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 incorrectly

Manual Integration Report

Sequence	vl121824	Instrument	MSVOA_l

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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 incorrectly
VSTDCCC010	VL041788.D	Ethanol	SAM	12/19/2024 12:18:09 PM	MMDadoda	12/19/2024 2:45:22 PM	Peak Integrated by Software incorrectly

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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
P5293-01	VL041797.D	2,2,4-Trimethylpentane	SAM	12/19/2024 12:18:25 PM	MMDadoda	12/19/2024 2:45:28 PM	Peak Integrated by Software incorrectly
P5293-01	VL041797.D	Carbon Tetrachloride	SAM	12/19/2024 12:18:25 PM	MMDadoda	12/19/2024 2:45:28 PM	Peak Integrated by Software incorrectly
P5293-01	VL041797.D	Chlorodifluoromethane	SAM	12/19/2024 12:18:25 PM	MMDadoda	12/19/2024 2:45:28 PM	Peak Integrated by Software incorrectly
P5293-01	VL041797.D	m/p-Xylene	SAM	12/19/2024 12:18:25 PM	MMDadoda	12/19/2024 2:45:28 PM	Peak Integrated by Software incorrectly
P5293-01	VL041797.D	Propene	SAM	12/19/2024 12:18:25 PM	MMDadoda	12/19/2024 2:45:28 PM	Peak Integrated by Software incorrectly
P5293-01	VL041797.D	Toluene	SAM	12/19/2024 12:18:25 PM	MMDadoda	12/19/2024 2:45:28 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-	VL041798.	Carbon Tetrachloride	SA	12/19/202	MMDadod	12/19/202	Peak

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01DUP	D		M	4 12:19:02 PM	a	4 2:45:30 PM	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
P5293-02	VL041799.D	Carbon Tetrachloride	SAM	12/19/2024 12:19:20 PM	MMDadoda	12/19/2024 2:45:33 PM	Peak Integrated by Software incorrectly
P5293-02	VL041799.D	Chlorodifluoromethane	SAM	12/19/2024 12:19:20 PM	MMDadoda	12/19/2024 2:45:33 PM	Peak Integrated by Software incorrectly
P5293-02	VL041799.D	Ethyl Acetate	SAM	12/19/2024 12:19:20 PM	MMDadoda	12/19/2024 2:45:33 PM	Peak Integrated by Software incorrectly
P5293-02	VL041799.D	Heptane	SAM	12/19/2024 12:19:20 PM	MMDadoda	12/19/2024 2:45:33 PM	Peak Integrated by Software incorrectly
P5293-02	VL041799.D	m/p-Xylene	SAM	12/19/2024 12:19:20 PM	MMDadoda	12/19/2024 2:45:33 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	4-Methyl-2-Pentanone	SAM	12/19/2024 12:19:25	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by

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				PM			Software incorrectly
P5293-03	VL041800.D	Bromodichloromethane	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	Carbon Tetrachloride	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	Chlorodifluoromethane	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	Ethyl Benzene	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	Heptane	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	n-propylbenzene	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03	VL041800.D	Naphthalene	SAM	12/19/2024 12:19:25 PM	MMDadoda	12/19/2024 2:45:34 PM	Peak Integrated by Software incorrectly
P5293-03DL	VL041810.D	Styrene	SAM	12/23/2024 5:30:43 AM	MMDadoda	12/23/2024 5:32:41 AM	Peak Integrated by Software incorrectly

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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_____

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DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **P5293**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **SOHIL JODHANI** **Date:** **12/25/2024**