TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Dayton
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Dayton, OH 45440
Tel: 800-572-9839

TestAmerica Job ID: DVB0768
Client Project/Site: 103G1852145
Client Project Description: Troy, OH Project

For:
Tetra Tech EMI (OH)
250 W. Court Street, Suite 200W
Cincinnati, OH 45202

Attn: Guy Montfort

Authorized for release by:
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
DVB0768-01	SB-021-800212	Non-aqueous	02/20/12 16:30	02/21/12 08:37

Client Sample Results

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Client Sample ID: SB-021-800212

Date Collected: 02/20/12 16:30
Date Received: 02/21/12 08:37

Lab Sample ID: DVB0768-01

Matrix: Non-aqueous

Method: SW 8260A - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<95.4		95.4	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Benzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Bromobenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Bromochloromethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Bromodichloromethane (Dichlorobromomethane)	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Bromoform	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Bromomethane (Methyl bromide)	<9.54		9.54	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
2-Butanone (MEK)	<47.7		47.7	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
tert-Butylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
sec-Butylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
n-Butylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Carbon disulfide	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Carbon tetrachloride	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Chlorobenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Chloroethane	<9.54		9.54	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Chloroform	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Chloromethane (Methyl chloride)	<9.54		9.54	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
4-Chlorotoluene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
2-Chlorotoluene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Dibromochloromethane (Chlorodibromomethane)	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Dibromomethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,2-Dichlorobenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,4-Dichlorobenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,3-Dichlorobenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Dichlorodifluoromethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,1-Dichloroethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,2-Dichloroethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
cis-1,2-Dichloroethene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
trans-1,2-Dichloroethene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,1-Dichloroethene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,3-Dichloropropane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
2,2-Dichloropropane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,2-Dichloropropane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,1-Dichloropropene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
cis-1,3-Dichloropropene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
trans-1,3-Dichloropropene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Ethylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Hexachlorobutadiene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
n-Hexane	<19.1		19.1	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
2-Hexanone	<47.7		47.7	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Isopropylbenzene (Cumene)	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
p-Isopropyltoluene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Methyl tert-butyl ether	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Methylene chloride	<47.7		47.7	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
4-Methyl-2-pentanone (MIBK)	<47.7		47.7	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
n-Propylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Styrene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,1,1,2-Tetrachloroethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,1,2,2-Tetrachloroethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Toluene	**20.3**		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,2,4-Trichlorobenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00

Client Sample Results

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Client Sample ID: SB-021-800212

Date Collected: 02/20/12 16:30
Date Received: 02/21/12 08:37

Lab Sample ID: DVB0768-01

Matrix: Non-aqueous

Method: SW 8260A - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,1,2-Trichloroethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Trichloroethene	**42.6**		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Trichlorofluoromethane	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,2,4-Trimethylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
1,3,5-Trimethylbenzene	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Vinyl Acetate	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Vinyl chloride	<1.91		1.91	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00
Xylenes, total	<4.77		4.77	ug/kg wet		02/22/12 09:13	02/22/12 14:22	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*80 - 120*	*02/22/12 09:13*	*02/22/12 14:22*	*1.00*
Dibromofluoromethane	*101*		*80 - 120*	*02/22/12 09:13*	*02/22/12 14:22*	*1.00*
Toluene-d8	*105*		*80 - 120*	*02/22/12 09:13*	*02/22/12 14:22*	*1.00*
4-Bromofluorobenzene	*99*		*80 - 120*	*02/22/12 09:13*	*02/22/12 14:22*	*1.00*

Method: SW 8260A - Volatile Organic Compounds by GC/MS - RE1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**11700**		888	ug/kg wet		02/22/12 08:24	02/22/12 15:56	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*97*		*80 - 120*	*02/22/12 08:24*	*02/22/12 15:56*	*200*
Dibromofluoromethane	*92*		*80 - 120*	*02/22/12 08:24*	*02/22/12 15:56*	*200*
Toluene-d8	*95*		*80 - 120*	*02/22/12 08:24*	*02/22/12 15:56*	*200*
4-Bromofluorobenzene	*100*		*80 - 120*	*02/22/12 08:24*	*02/22/12 15:56*	*200*

QC Sample Results

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Method: SW 8260A - Volatile Organic Compounds by GC/MS

Lab Sample ID: 12B0726-BLK1
Matrix: Non-aqueous
Analysis Batch: 12B0726

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12B0726_P

Analyte	Blank Result	Blank Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Bromodichloromethane (Dichlorobromomethane)	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Bromoform	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Bromomethane (Methyl bromide)	<10.0		10.0	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Carbon tetrachloride	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Chlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Chloroethane	<10.0		10.0	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Chloroform	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Chloromethane (Methyl chloride)	<10.0		10.0	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Dibromochloromethane (Chlorodibromomethane)	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,2-Dichlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,4-Dichlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,3-Dichlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,1-Dichloroethane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,2-Dichloroethane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
trans-1,2-Dichloroethene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,1-Dichloroethene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,2-Dichloropropane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
cis-1,3-Dichloropropene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
trans-1,3-Dichloropropene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Ethylbenzene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Methylene chloride	<50.0		50.0	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,1,2,2-Tetrachloroethane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Tetrachloroethene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Toluene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,1,1-Trichloroethane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
1,1,2-Trichloroethane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Trichloroethene	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Trichlorofluoromethane	<5.00		5.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00
Vinyl chloride	<2.00		2.00	ug/kg wet		02/22/12 09:13	02/22/12 13:37	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*90*		*80 - 120*	*02/22/12 09:13*	*02/22/12 13:37*	*1.00*
Dibromofluoromethane	*98*		*80 - 120*	*02/22/12 09:13*	*02/22/12 13:37*	*1.00*
Toluene-d8	*105*		*80 - 120*	*02/22/12 09:13*	*02/22/12 13:37*	*1.00*
4-Bromofluorobenzene	*102*		*80 - 120*	*02/22/12 09:13*	*02/22/12 13:37*	*1.00*

Lab Sample ID: 12B0726-BS1
Matrix: Non-aqueous
Analysis Batch: 12B0726

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12B0726_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.000	17.6		ug/kg wet		88	73 - 120
Bromodichloromethane (Dichlorobromomethane)	20.000	17.7		ug/kg wet		88	72 - 120
Bromoform	20.000	16.9		ug/kg wet		85	61 - 120
Bromomethane (Methyl bromide)	20.000	21.4		ug/kg wet		107	52 - 123
Carbon tetrachloride	20.000	17.7		ug/kg wet		88	64 - 122
Chlorobenzene	20.000	19.5		ug/kg wet		97	67 - 121

Method: SW 8260A - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 12B0726-BS1 | **Client Sample ID: Lab Control Sample**
Matrix: Non-aqueous | **Prep Type: Total**
Analysis Batch: 12B0726 | **Prep Batch: 12B0726_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	20.000	18.0		ug/kg wet		90	53 - 129
Chloroform	20.000	18.6		ug/kg wet		93	68 - 122
Chloromethane (Methyl chloride)	20.000	19.3		ug/kg wet		96	40 - 139
Dibromochloromethane (Chlorodibromomethane)	20.000	18.8		ug/kg wet		94	54 - 152
1,2-Dichlorobenzene	20.000	19.1		ug/kg wet		96	74 - 120
1,4-Dichlorobenzene	20.000	19.5		ug/kg wet		98	71 - 120
1,3-Dichlorobenzene	20.000	19.9		ug/kg wet		99	72 - 120
1,1-Dichloroethane	20.000	17.8		ug/kg wet		89	63 - 125
1,2-Dichloroethane	20.000	17.8		ug/kg wet		89	70 - 120
trans-1,2-Dichloroethene	20.000	19.1		ug/kg wet		95	70 - 120
1,1-Dichloroethene	20.000	18.7		ug/kg wet		93	57 - 130
1,2-Dichloropropane	20.000	18.1		ug/kg wet		90	68 - 120
cis-1,3-Dichloropropene	20.000	17.3		ug/kg wet		87	70 - 121
trans-1,3-Dichloropropene	20.000	18.3		ug/kg wet		92	64 - 120
Ethylbenzene	20.000	20.7		ug/kg wet		104	69 - 123
1,1,2,2-Tetrachloroethane	20.000	18.0		ug/kg wet		90	69 - 120
Tetrachloroethene	20.000	17.2		ug/kg wet		86	58 - 133
Toluene	20.000	19.4		ug/kg wet		97	63 - 126
1,1,1-Trichloroethane	20.000	18.7		ug/kg wet		93	63 - 125
1,1,2-Trichloroethane	20.000	18.8		ug/kg wet		94	71 - 120
Trichloroethene	20.000	18.3		ug/kg wet		92	71 - 120
Trichlorofluoromethane	20.000	18.9		ug/kg wet		94	60 - 128
Vinyl chloride	20.000	18.6		ug/kg wet		93	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*96*		*80 - 120*
Dibromofluoromethane	*99*		*80 - 120*
Toluene-d8	*103*		*80 - 120*
4-Bromofluorobenzene	*101*		*80 - 120*

Lab Sample ID: 12B0726-MS1 | **Client Sample ID: SB-021-800212**
Matrix: Non-aqueous | **Prep Type: Total**
Analysis Batch: 12B0726 | **Prep Batch: 12B0726_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<4.77		20.000	19.6		ug/kg wet		98	73 - 120
Bromodichloromethane (Dichlorobromomethane)	<4.77		20.000	16.2		ug/kg wet		81	72 - 120
Carbon tetrachloride	<4.77		20.000	23.2		ug/kg wet		116	64 - 122
Chlorobenzene	<4.77		20.000	13.8		ug/kg wet		69	67 - 121
Chloroethane	<9.54		20.000	21.6		ug/kg wet		108	53 - 129
Chloroform	<4.77		20.000	18.9		ug/kg wet		95	68 - 122
Chloromethane (Methyl chloride)	<9.54		20.000	21.0		ug/kg wet		105	40 - 139
Dibromochloromethane (Chlorodibromomethane)	<4.77		20.000	15.0		ug/kg wet		75	54 - 152
1,2-Dichlorobenzene	<4.77		20.000	9.72	M14	ug/kg wet		49	74 - 120
1,4-Dichlorobenzene	<4.77		20.000	8.42	M14	ug/kg wet		42	71 - 120
1,3-Dichlorobenzene	<4.77		20.000	9.09	M14	ug/kg wet		45	72 - 120
1,1-Dichloroethane	<4.77		20.000	20.4		ug/kg wet		102	63 - 125

QC Sample Results

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Method: SW 8260A - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 12B0726-MS1 — **Client Sample ID: SB-021-800212**
Matrix: Non-aqueous — **Prep Type: Total**
Analysis Batch: 12B0726 — **Prep Batch: 12B0726_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	<4.77		20.000	17.0		ug/kg wet		85	70 - 120
trans-1,2-Dichloroethene	<4.77		20.000	20.5		ug/kg wet		103	70 - 120
1,1-Dichloroethene	<4.77		20.000	23.1		ug/kg wet		115	57 - 130
1,2-Dichloropropane	<4.77		20.000	18.0		ug/kg wet		90	68 - 120
cis-1,3-Dichloropropene	<4.77		20.000	14.1		ug/kg wet		71	70 - 121
trans-1,3-Dichloropropene	<4.77		20.000	12.5	M14	ug/kg wet		63	64 - 120
Ethylbenzene	<4.77		20.000	16.0		ug/kg wet		80	69 - 123
1,1,2,2-Tetrachloroethane	<4.77		20.000	11.4	M14	ug/kg wet		57	69 - 120
Tetrachloroethene	1440		20.000	1350	M14	ug/kg wet		-462	58 - 133
Toluene	20.3		20.000	41.8		ug/kg wet		108	63 - 126
1,1,1-Trichloroethane	<4.77		20.000	22.0		ug/kg wet		110	63 - 125
1,1,2-Trichloroethane	<4.77		20.000	18.9		ug/kg wet		94	71 - 120
Trichloroethene	42.6		20.000	97.6	M14	ug/kg wet		275	71 - 120
Trichlorofluoromethane	<4.77		20.000	23.5		ug/kg wet		117	60 - 128
Vinyl chloride	<1.91		20.000	21.8		ug/kg wet		109	40 - 140

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*94*		*80 - 120*
Dibromofluoromethane	*102*		*80 - 120*
Toluene-d8	*97*		*80 - 120*
4-Bromofluorobenzene	*98*		*80 - 120*

Lab Sample ID: 12B0726-MSD1 — **Client Sample ID: SB-021-800212**
Matrix: Non-aqueous — **Prep Type: Total**
Analysis Batch: 12B0726 — **Prep Batch: 12B0726_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<4.77		20.000	24.1	M14	ug/kg wet		121	73 - 120	21	30
Bromodichloromethane (Dichlorobromomethane)	<4.77		20.000	19.1		ug/kg wet		96	72 - 120	16	30
Bromoform	<4.77		20.000	13.7		ug/kg wet		69	61 - 120	16	30
Bromomethane (Methyl bromide)	<9.54		20.000	32.0	M14	ug/kg wet		160	52 - 123	17	30
Carbon tetrachloride	<4.77		20.000	28.4	M14	ug/kg wet		142	64 - 122	20	30
Chlorobenzene	<4.77		20.000	17.3		ug/kg wet		87	67 - 121	22	30
Chloroethane	<9.54		20.000	25.2		ug/kg wet		126	53 - 129	15	30
Chloroform	<4.77		20.000	23.6		ug/kg wet		118	68 - 122	22	30
Chloromethane (Methyl chloride)	<9.54		20.000	26.2		ug/kg wet		131	40 - 139	22	30
Dibromochloromethane (Chlorodibromomethane)	<4.77		20.000	19.0		ug/kg wet		95	54 - 152	23	30
1,2-Dichlorobenzene	<4.77		20.000	12.9	M14	ug/kg wet		64	74 - 120	28	30
1,4-Dichlorobenzene	<4.77		20.000	11.4	M14	ug/kg wet		57	71 - 120	30	30
1,3-Dichlorobenzene	<4.77		20.000	11.2	M14	ug/kg wet		56	72 - 120	21	30
1,1-Dichloroethane	<4.77		20.000	24.2		ug/kg wet		121	63 - 125	17	30
1,2-Dichloroethane	<4.77		20.000	19.8		ug/kg wet		99	70 - 120	15	30
trans-1,2-Dichloroethene	<4.77		20.000	26.2	M14	ug/kg wet		131	70 - 120	24	30
1,1-Dichloroethene	<4.77		20.000	30.5	M14	ug/kg wet		153	57 - 130	28	30
1,2-Dichloropropane	<4.77		20.000	19.8		ug/kg wet		99	68 - 120	9	30
cis-1,3-Dichloropropene	<4.77		20.000	18.0		ug/kg wet		90	70 - 121	24	30
trans-1,3-Dichloropropene	<4.77		20.000	15.3		ug/kg wet		77	64 - 120	20	30
Ethylbenzene	<4.77		20.000	19.4		ug/kg wet		97	69 - 123	19	30

QC Sample Results

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Method: SW 8260A - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 12B0726-MSD1
Matrix: Non-aqueous
Analysis Batch: 12B0726

Client Sample ID: SB-021-800212
Prep Type: Total
Prep Batch: 12B0726_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	<4.77		20.000	13.2	M14	ug/kg wet		66	69 - 120	15	30
Tetrachloroethene	1440		20.000	1490	M14	ug/kg wet		269	58 - 133	10	30
Toluene	20.3		20.000	49.8	M14	ug/kg wet		147	63 - 126	17	30
1,1,1-Trichloroethane	<4.77		20.000	27.3	M14	ug/kg wet		137	63 - 125	22	30
1,1,2-Trichloroethane	<4.77		20.000	37.8	M14	ug/kg wet		189	71 - 120	67	30
Trichloroethene	42.6		20.000	104	M14	ug/kg wet		309	71 - 120	7	30
Trichlorofluoromethane	<4.77		20.000	29.9	M14	ug/kg wet		150	60 - 128	24	30
Vinyl chloride	<1.91		20.000	26.5		ug/kg wet		133	40 - 140	20	30

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*95*		*80 - 120*
Dibromofluoromethane	*104*		*80 - 120*
Toluene-d8	*97*		*80 - 120*
4-Bromofluorobenzene	*100*		*80 - 120*

Lab Sample ID: 12B0728-BLK1
Matrix: Non-aqueous
Analysis Batch: 12B0728

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12B0728_P

Analyte	Blank Result	Blank Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Bromodichloromethane (Dichlorobromomethane)	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Bromoform	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Bromomethane (Methyl bromide)	<10.0		10.0	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Carbon tetrachloride	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Chlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Chloroethane	<10.0		10.0	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Chloroform	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Chloromethane (Methyl chloride)	<10.0		10.0	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Dibromochloromethane (Chlorodibromomethane)	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,2-Dichlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,4-Dichlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,3-Dichlorobenzene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,1-Dichloroethane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,2-Dichloroethane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
trans-1,2-Dichloroethene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,1-Dichloroethene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,2-Dichloropropane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
cis-1,3-Dichloropropene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
trans-1,3-Dichloropropene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Ethylbenzene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Methylene chloride	<50.0		50.0	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,1,2,2-Tetrachloroethane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Tetrachloroethene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Toluene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,1,1-Trichloroethane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
1,1,2-Trichloroethane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Trichloroethene	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00
Trichlorofluoromethane	<5.00		5.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00

Method: SW 8260A - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 12B0728-BLK1 — **Client Sample ID: Method Blank**
Matrix: Non-aqueous — **Prep Type: Total**
Analysis Batch: 12B0728 — **Prep Batch: 12B0728_P**

Analyte	Blank Result	Blank Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<2.00		2.00	ug/kg wet		02/22/12 08:24	02/22/12 14:16	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*80 - 120*	*02/22/12 08:24*	*02/22/12 14:16*	*1.00*
Dibromofluoromethane	*95*		*80 - 120*	*02/22/12 08:24*	*02/22/12 14:16*	*1.00*
Toluene-d8	*94*		*80 - 120*	*02/22/12 08:24*	*02/22/12 14:16*	*1.00*
4-Bromofluorobenzene	*105*		*80 - 120*	*02/22/12 08:24*	*02/22/12 14:16*	*1.00*

Lab Sample ID: 12B0728-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Non-aqueous — **Prep Type: Total**
Analysis Batch: 12B0728 — **Prep Batch: 12B0728_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.000	18.8		ug/kg wet		94	73 - 120
Bromodichloromethane (Dichlorobromomethane)	20.000	19.0		ug/kg wet		95	72 - 120
Bromoform	20.000	19.7		ug/kg wet		98	61 - 120
Bromomethane (Methyl bromide)	20.000	25.5	L1	ug/kg wet		127	52 - 123
Carbon tetrachloride	20.000	19.1		ug/kg wet		95	64 - 122
Chlorobenzene	20.000	18.7		ug/kg wet		94	67 - 121
Chloroethane	20.000	20.8		ug/kg wet		104	53 - 129
Chloroform	20.000	18.2		ug/kg wet		91	68 - 122
Chloromethane (Methyl chloride)	20.000	19.8		ug/kg wet		99	40 - 139
Dibromochloromethane (Chlorodibromomethane)	20.000	18.1		ug/kg wet		90	54 - 152
1,2-Dichlorobenzene	20.000	18.9		ug/kg wet		95	74 - 120
1,4-Dichlorobenzene	20.000	19.6		ug/kg wet		98	71 - 120
1,3-Dichlorobenzene	20.000	19.3		ug/kg wet		96	72 - 120
1,1-Dichloroethane	20.000	18.4		ug/kg wet		92	63 - 125
1,2-Dichloroethane	20.000	18.6		ug/kg wet		93	70 - 120
trans-1,2-Dichloroethene	20.000	19.3		ug/kg wet		97	70 - 120
1,1-Dichloroethene	20.000	19.3		ug/kg wet		97	57 - 130
1,2-Dichloropropane	20.000	18.0		ug/kg wet		90	68 - 120
cis-1,3-Dichloropropene	20.000	18.9		ug/kg wet		95	70 - 121
trans-1,3-Dichloropropene	20.000	17.4		ug/kg wet		87	64 - 120
Ethylbenzene	20.000	19.2		ug/kg wet		96	69 - 123
1,1,2,2-Tetrachloroethane	20.000	18.0		ug/kg wet		90	69 - 120
Tetrachloroethene	20.000	19.0		ug/kg wet		95	58 - 133
Toluene	20.000	17.8		ug/kg wet		89	63 - 126
1,1,1-Trichloroethane	20.000	19.2		ug/kg wet		96	63 - 125
1,1,2-Trichloroethane	20.000	17.9		ug/kg wet		89	71 - 120
Trichloroethene	20.000	19.7		ug/kg wet		99	71 - 120
Trichlorofluoromethane	20.000	19.5		ug/kg wet		97	60 - 128
Vinyl chloride	20.000	19.7		ug/kg wet		98	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*93*		*80 - 120*
Dibromofluoromethane	*92*		*80 - 120*
Toluene-d8	*94*		*80 - 120*

QC Sample Results

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Method: SW 8260A - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 12B0728-BS1
Matrix: Non-aqueous
Analysis Batch: 12B0728

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12B0728_P

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*80 - 120*

Certification Summary

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Laboratory: TestAmerica Dayton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Indiana	State Program	5	C-OH-10	01-12-13
Kentucky (UST)	State Program	4	8	08-08-13
Michigan	State Program	5	9931	01-12-13
Ohio	State Program	5	OH-00010	05-11-13
Ohio	State Program	5	OH-00010	10-18-14
Ohio	State Program	5	OH-00010	07-11-14
Ohio	State Program	5	OH-00010	01-12-13
Ohio	State Program	5	OH-00010	01-13-13
Ohio VAP	State Program	5	CL0018	04-30-14
Pennsylvania	NELAC	3	68-00577	12-31-12

Definitions/Glossary

Client: Tetra Tech EMI (OH)
Project/Site: 103G1852145

TestAmerica Job ID: DVB0768

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
M14	The MS/MSD recoveries are outside of laboratory established control limits.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DVB 0768

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: TETRA TECH	Client Project Manager: Guy Montgomery	Site Contact: Brandon Ham	Lab Contact:	COC No: 038164
Address: 250 W Court St. 200N	Telephone: 513 241 0149	Telephone: 513 532 4259	Telephone:	____ of ____ COCs
City/State/Zip: Cincinnati OH 45202	Email: guy.montgomery@tetratech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 513-241-0149		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☒ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: EAST TROY	Method of Shipment/Carrier:			
Project Number: 103 G 1552145	Shipping/Tracking No:			Job/SDG No:
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: NONE	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	Sample Specific Notes / Special Instructions:
SB-021-S00212	2/20/12	1630				X								X		G	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TETRA TECH	2-21-12 837			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 2/21/12 0837

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TAL 0018-1 (04/10)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cooler/Sample Receipt

☐ MSDS or Known Hazard Information Supplied by Client
☐ Bottle stickers applied ☐ ELEMENT comment entered ☐ MSDS/COC scanned/emailed to EH&S
☐ Discrepancies Client ID Tetra Tech
☐ Short Hold Work Order # DVB 0768
☒ Rush ☒24hr ☐2day ☐3day ☐5day ☐other
Receipt evaluation performed by - Initials: [illegible] Date: 2/21/12 Time: 0837

Method of Shipment:
☒ Walk-In Client ☐ TestAmerica Field/Courier
☒ Other Client/3rd Party Courier
☐ Fed Ex Tracking #
☐ UPS Tracking #
☐ Other

Shipping Container Type:
☒ Cooler ☐ Box
☐ None ☐ Other

Packing Materials:
☒ Plastic Bags ☐ Foam
☐ Bubble Wrap ☐ Paper
☐ Packing Peanuts ☐ None
☐ Other

Custody Seals Intact:
☐ Yes ☐ No
☒ N/A (not used or required)

Cooling Materials:
☒ Ice *(solid)* ☐ Ice *(Melted)*
☐ Blue Ice ☐ None
☐ Other

Are there any soil samples from areas requiring USDA quarantine? *(AL, AR, AZ, CA, FL, GA, HI, ID, LA MS, NC, NM, NY, OK, SC, TN, TX, VA, Puerto Rico, Virgin Islands, any other Non-Domestic area)* ☒ No ☐ Yes (If Yes, *Project Manager must be notified*).

Receipt Temperatures ☐ Check if Additional Sheets Required

Thermometer ID	Observed (°C)	Corrected (°C)	Temp Blank	Sample Temp	Received on same day sampled?	Acceptable?*	Cooler ID	Note Affected Samples if temperature not acceptable
G	3.9	3.9	☒	☐	☐Yes ☒No	☒Yes ☐No		
			☐	☐	☐Yes ☐No	☐Yes ☐No		
			☐	☐	☐Yes ☐No	☐Yes ☐No		

* Receipt temperatures are considered acceptable if the samples are received on the same day they were collected & show signs that the cooling process has started. Temperature acceptance for most tests is ≤6.0°C, **but not frozen**. For additional information, please refer to SOP DT-SCA-004 ***Sample Receipt and Login, Attachment 2 – Holding Times, Preservation and Container Requirements***.

Receipt Questions**	Y	N	n/a	"No" answers require additional comment
COC present & TA receipt signature, date, & time properly documented?	X			
Containers & labels in good condition? *(unbroken, not leaking, appropriately filled, labels legible & attached)*	X			
Appropriate containers used & adequate volume provided?	X			
Number of sample containers match COC?	X			
Samples received within hold time?	X			
Samples submitted for GRO and Volatiles analyses (8260, 624, 524) received without headspace?			X	
Was a Trip Blank received with VOA samples?			X	
Were the samples free of any questionable physical conformities? For example, field duplicates or multiple bottles of the same sample do not significantly vary in appearance (color, proportion of solids, etc.)	X			
Were the COC, bottle labels, and all other items free of all other discrepancies or issues that would need to be addressed with the Project Manager and/or Client?	X			

** May not be applicable if samples are not for compliance testing

Client Contact Record
Contact via: ☐ Phone ☐ Email ☐ Other **Person Contacted:** **Date/Time:**
☐ Discrepancy allowance agreement is on record in the client project file.
Discussion/Resolution:

Any additional documentation and clarification from client must be noted in the narrative and/or scanned into the COC directory.

TM 2/21/12
Reviewed by PM Signature Date

WI No. DT-SCA-WI-001.9
effective 10/18/10
10/30/2012