TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 160-20140-1

Job Description: HDP RFP-CBA-022 (21 DAY TAT)

For:
Westinghouse Electric Company LLC
3300 State Road P
Festus, MO 63028

Attention: Mr. Martin Swanson

Rhonda Ridenhower

Approved for release.
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12/6/2016 3:39 PM

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12/06/2016

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. Pursuant to NELAP, this report shall not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager.

Louisiana Lab Certification ID (Non-Potable, Solid/Haz. Material): 106151
Florida Lab Certification ID (Drinking Water): E87689.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: Westinghouse Electric Company LLC

Project: HDP RFP-CBA-022 (21 DAY TAT)

Report Number: 160-20140-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/23/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TB-112216 (160-20140-1), SW-WS06-112216 (160-20140-2), SW-WS12-112216 (160-20140-3) and SW-WS11-112216 (160-20140-4) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 12/01/2016.

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV) associated with batch 160-281852: 2-Butanone, n-Butanol, 2-Hexanone, and Acetone. A low level CCV was analyzed at the base reporting limit of 1ug/L and the affected analytes were detected. Affected target analytes recovering above the reporting limit in the associated samples will be qualified and reported. (CCVIS 160-281852/2)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 160-281852. Laboratory control sample (LCS) and duplicate (LCSD) were analyzed in order to demonstrate accuracy and replicate-precision. (LCS 160-281852/3) and (LCSD 160-281852/4)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: TB-112216

Date Collected: 11/22/16 07:00
Date Received: 11/23/16 11:30

Lab Sample ID: 160-20140-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			12/01/16 15:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			12/01/16 15:14	1
1,1,2-Trichloroethane	ND		1.0	0.13	ug/L			12/01/16 15:14	1
1,1-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 15:14	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			12/01/16 15:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.10	ug/L			12/01/16 15:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			12/01/16 15:14	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			12/01/16 15:14	1
1,2-Dichloroethene, Total	ND		2.0	0.14	ug/L			12/01/16 15:14	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			12/01/16 15:14	1
2-Butanone	ND		5.0	0.47	ug/L			12/01/16 15:14	1
2-Hexanone	ND		5.0	0.25	ug/L			12/01/16 15:14	1
4-Methyl-2-pentanone	ND		5.0	0.22	ug/L			12/01/16 15:14	1
Acetone	ND		2.0	0.55	ug/L			12/01/16 15:14	1
Benzene	ND		1.0	0.10	ug/L			12/01/16 15:14	1
Bromoform	ND		1.0	0.17	ug/L			12/01/16 15:14	1
Methyl bromide	ND		2.0	0.25	ug/L			12/01/16 15:14	1
Carbon disulfide	ND		1.0	0.10	ug/L			12/01/16 15:14	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			12/01/16 15:14	1
Chlorobenzene	ND		1.0	0.11	ug/L			12/01/16 15:14	1
Chlorodibromomethane	ND		1.0	0.14	ug/L			12/01/16 15:14	1
Chloroethane	ND		2.0	0.16	ug/L			12/01/16 15:14	1
Chloroform	ND		1.0	0.10	ug/L			12/01/16 15:14	1
Chloromethane	ND		2.0	0.10	ug/L			12/01/16 15:14	1
cis-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 15:14	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/01/16 15:14	1
Bromodichloromethane	ND		1.0	0.14	ug/L			12/01/16 15:14	1
Ethylbenzene	ND		1.0	0.12	ug/L			12/01/16 15:14	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			12/01/16 15:14	1
Methylene Chloride	ND		1.0	0.27	ug/L			12/01/16 15:14	1
n-Butanol	ND		50	12	ug/L			12/01/16 15:14	1
Styrene	ND		1.0	0.13	ug/L			12/01/16 15:14	1
Tetrachloroethene	ND		1.0	0.18	ug/L			12/01/16 15:14	1
Toluene	ND		1.0	0.14	ug/L			12/01/16 15:14	1
trans-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 15:14	1
trans-1,3-Dichloropropene	ND		1.0	0.10	ug/L			12/01/16 15:14	1
Trichloroethene	ND		1.0	0.25	ug/L			12/01/16 15:14	1
Vinyl acetate	ND		2.0	0.18	ug/L			12/01/16 15:14	1
Vinyl chloride	ND		2.0	0.19	ug/L			12/01/16 15:14	1
Xylenes, Total	ND		3.0	0.27	ug/L			12/01/16 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 129*		*12/01/16 15:14*	*1*
4-Bromofluorobenzene (Surr)	*94*		*81 - 130*		*12/01/16 15:14*	*1*
Dibromofluoromethane (Surr)	*107*		*81 - 124*		*12/01/16 15:14*	*1*
Toluene-d8 (Surr)	*100*		*87 - 128*		*12/01/16 15:14*	*1*

Client Sample ID: SW-WS06-112216

Date Collected: 11/22/16 08:05
Date Received: 11/23/16 11:30

Lab Sample ID: 160-20140-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			12/01/16 15:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			12/01/16 15:39	1
1,1,2-Trichloroethane	ND		1.0	0.13	ug/L			12/01/16 15:39	1
1,1-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 15:39	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			12/01/16 15:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.10	ug/L			12/01/16 15:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			12/01/16 15:39	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			12/01/16 15:39	1
1,2-Dichloroethene, Total	ND		2.0	0.14	ug/L			12/01/16 15:39	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			12/01/16 15:39	1
2-Butanone	ND		5.0	0.47	ug/L			12/01/16 15:39	1
2-Hexanone	ND		5.0	0.25	ug/L			12/01/16 15:39	1
4-Methyl-2-pentanone	ND		5.0	0.22	ug/L			12/01/16 15:39	1
Acetone	**0.96**	**J**	2.0	0.55	ug/L			12/01/16 15:39	1
Benzene	ND		1.0	0.10	ug/L			12/01/16 15:39	1
Bromoform	ND		1.0	0.17	ug/L			12/01/16 15:39	1
Methyl bromide	ND		2.0	0.25	ug/L			12/01/16 15:39	1
Carbon disulfide	ND		1.0	0.10	ug/L			12/01/16 15:39	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			12/01/16 15:39	1
Chlorobenzene	ND		1.0	0.11	ug/L			12/01/16 15:39	1
Chlorodibromomethane	ND		1.0	0.14	ug/L			12/01/16 15:39	1
Chloroethane	ND		2.0	0.16	ug/L			12/01/16 15:39	1
Chloroform	ND		1.0	0.10	ug/L			12/01/16 15:39	1
Chloromethane	ND		2.0	0.10	ug/L			12/01/16 15:39	1
cis-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 15:39	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/01/16 15:39	1
Bromodichloromethane	ND		1.0	0.14	ug/L			12/01/16 15:39	1
Ethylbenzene	ND		1.0	0.12	ug/L			12/01/16 15:39	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			12/01/16 15:39	1
Methylene Chloride	ND		1.0	0.27	ug/L			12/01/16 15:39	1
n-Butanol	ND		50	12	ug/L			12/01/16 15:39	1
Styrene	ND		1.0	0.13	ug/L			12/01/16 15:39	1
Tetrachloroethene	ND		1.0	0.18	ug/L			12/01/16 15:39	1
Toluene	ND		1.0	0.14	ug/L			12/01/16 15:39	1
trans-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 15:39	1
trans-1,3-Dichloropropene	ND		1.0	0.10	ug/L			12/01/16 15:39	1
Trichloroethene	ND		1.0	0.25	ug/L			12/01/16 15:39	1
Vinyl acetate	ND		2.0	0.18	ug/L			12/01/16 15:39	1
Vinyl chloride	ND		2.0	0.19	ug/L			12/01/16 15:39	1
Xylenes, Total	ND		3.0	0.27	ug/L			12/01/16 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 129*		*12/01/16 15:39*	*1*
4-Bromofluorobenzene (Surr)	*94*		*81 - 130*		*12/01/16 15:39*	*1*
Dibromofluoromethane (Surr)	*106*		*81 - 124*		*12/01/16 15:39*	*1*
Toluene-d8 (Surr)	*100*		*87 - 128*		*12/01/16 15:39*	*1*

Client Sample ID: SW-WS12-112216

Date Collected: 11/22/16 08:35
Date Received: 11/23/16 11:30

Lab Sample ID: 160-20140-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			12/01/16 16:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			12/01/16 16:04	1
1,1,2-Trichloroethane	ND		1.0	0.13	ug/L			12/01/16 16:04	1
1,1-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 16:04	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			12/01/16 16:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.10	ug/L			12/01/16 16:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			12/01/16 16:04	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			12/01/16 16:04	1
1,2-Dichloroethene, Total	**0.57**	**J**	2.0	0.14	ug/L			12/01/16 16:04	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			12/01/16 16:04	1
2-Butanone	ND		5.0	0.47	ug/L			12/01/16 16:04	1
2-Hexanone	ND		5.0	0.25	ug/L			12/01/16 16:04	1
4-Methyl-2-pentanone	ND		5.0	0.22	ug/L			12/01/16 16:04	1
Acetone	ND		2.0	0.55	ug/L			12/01/16 16:04	1
Benzene	ND		1.0	0.10	ug/L			12/01/16 16:04	1
Bromoform	ND		1.0	0.17	ug/L			12/01/16 16:04	1
Methyl bromide	ND		2.0	0.25	ug/L			12/01/16 16:04	1
Carbon disulfide	ND		1.0	0.10	ug/L			12/01/16 16:04	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			12/01/16 16:04	1
Chlorobenzene	ND		1.0	0.11	ug/L			12/01/16 16:04	1
Chlorodibromomethane	ND		1.0	0.14	ug/L			12/01/16 16:04	1
Chloroethane	ND		2.0	0.16	ug/L			12/01/16 16:04	1
Chloroform	ND		1.0	0.10	ug/L			12/01/16 16:04	1
Chloromethane	ND		2.0	0.10	ug/L			12/01/16 16:04	1
cis-1,2-Dichloroethene	**0.57**	**J**	1.0	0.10	ug/L			12/01/16 16:04	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/01/16 16:04	1
Bromodichloromethane	ND		1.0	0.14	ug/L			12/01/16 16:04	1
Ethylbenzene	ND		1.0	0.12	ug/L			12/01/16 16:04	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			12/01/16 16:04	1
Methylene Chloride	ND		1.0	0.27	ug/L			12/01/16 16:04	1
n-Butanol	ND		50	12	ug/L			12/01/16 16:04	1
Styrene	ND		1.0	0.13	ug/L			12/01/16 16:04	1
Tetrachloroethene	ND		1.0	0.18	ug/L			12/01/16 16:04	1
Toluene	ND		1.0	0.14	ug/L			12/01/16 16:04	1
trans-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 16:04	1
trans-1,3-Dichloropropene	ND		1.0	0.10	ug/L			12/01/16 16:04	1
Trichloroethene	ND		1.0	0.25	ug/L			12/01/16 16:04	1
Vinyl acetate	ND		2.0	0.18	ug/L			12/01/16 16:04	1
Vinyl chloride	ND		2.0	0.19	ug/L			12/01/16 16:04	1
Xylenes, Total	ND		3.0	0.27	ug/L			12/01/16 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 129*		*12/01/16 16:04*	*1*
4-Bromofluorobenzene (Surr)	*91*		*81 - 130*		*12/01/16 16:04*	*1*
Dibromofluoromethane (Surr)	*99*		*81 - 124*		*12/01/16 16:04*	*1*
Toluene-d8 (Surr)	*99*		*87 - 128*		*12/01/16 16:04*	*1*

Client Sample ID: SW-WS11-112216

Date Collected: 11/22/16 09:00
Date Received: 11/23/16 11:30

Lab Sample ID: 160-20140-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			12/01/16 16:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			12/01/16 16:29	1
1,1,2-Trichloroethane	ND		1.0	0.13	ug/L			12/01/16 16:29	1
1,1-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 16:29	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			12/01/16 16:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.10	ug/L			12/01/16 16:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			12/01/16 16:29	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			12/01/16 16:29	1
1,2-Dichloroethene, Total	ND		2.0	0.14	ug/L			12/01/16 16:29	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			12/01/16 16:29	1
2-Butanone	ND		5.0	0.47	ug/L			12/01/16 16:29	1
2-Hexanone	ND		5.0	0.25	ug/L			12/01/16 16:29	1
4-Methyl-2-pentanone	ND		5.0	0.22	ug/L			12/01/16 16:29	1
Acetone	**1.9**	**J**	2.0	0.55	ug/L			12/01/16 16:29	1
Benzene	ND		1.0	0.10	ug/L			12/01/16 16:29	1
Bromoform	ND		1.0	0.17	ug/L			12/01/16 16:29	1
Methyl bromide	ND		2.0	0.25	ug/L			12/01/16 16:29	1
Carbon disulfide	ND		1.0	0.10	ug/L			12/01/16 16:29	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			12/01/16 16:29	1
Chlorobenzene	ND		1.0	0.11	ug/L			12/01/16 16:29	1
Chlorodibromomethane	ND		1.0	0.14	ug/L			12/01/16 16:29	1
Chloroethane	ND		2.0	0.16	ug/L			12/01/16 16:29	1
Chloroform	ND		1.0	0.10	ug/L			12/01/16 16:29	1
Chloromethane	ND		2.0	0.10	ug/L			12/01/16 16:29	1
cis-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 16:29	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/01/16 16:29	1
Bromodichloromethane	ND		1.0	0.14	ug/L			12/01/16 16:29	1
Ethylbenzene	ND		1.0	0.12	ug/L			12/01/16 16:29	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			12/01/16 16:29	1
Methylene Chloride	ND		1.0	0.27	ug/L			12/01/16 16:29	1
n-Butanol	ND		50	12	ug/L			12/01/16 16:29	1
Styrene	ND		1.0	0.13	ug/L			12/01/16 16:29	1
Tetrachloroethene	ND		1.0	0.18	ug/L			12/01/16 16:29	1
Toluene	ND		1.0	0.14	ug/L			12/01/16 16:29	1
trans-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 16:29	1
trans-1,3-Dichloropropene	ND		1.0	0.10	ug/L			12/01/16 16:29	1
Trichloroethene	ND		1.0	0.25	ug/L			12/01/16 16:29	1
Vinyl acetate	ND		2.0	0.18	ug/L			12/01/16 16:29	1
Vinyl chloride	ND		2.0	0.19	ug/L			12/01/16 16:29	1
Xylenes, Total	ND		3.0	0.27	ug/L			12/01/16 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 129*		*12/01/16 16:29*	*1*
4-Bromofluorobenzene (Surr)	*94*		*81 - 130*		*12/01/16 16:29*	*1*
Dibromofluoromethane (Surr)	*106*		*81 - 124*		*12/01/16 16:29*	*1*
Toluene-d8 (Surr)	*101*		*87 - 128*		*12/01/16 16:29*	*1*

Surrogate Summary

Client: Westinghouse Electric Company LLC
Project/Site: HDP RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-20140-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (75-129)	BFB (81-130)	DBFM (81-124)	TOL (87-128)
160-20140-1	TB-112216	101	94	107	100
160-20140-2	SW-WS06-112216	101	94	106	100
160-20140-3	SW-WS12-112216	97	91	99	99
160-20140-4	SW-WS11-112216	102	94	106	101
LCS 160-281852/3	Lab Control Sample	101	96	107	102
LCSD 160-281852/4	Lab Control Sample Dup	105	97	111	102
MB 160-281852/6	Method Blank	101	95	105	102

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-281852/6
Matrix: Water
Analysis Batch: 281852

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			12/01/16 11:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			12/01/16 11:03	1
1,1,2-Trichloroethane	ND		1.0	0.13	ug/L			12/01/16 11:03	1
1,1-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 11:03	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			12/01/16 11:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.10	ug/L			12/01/16 11:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			12/01/16 11:03	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			12/01/16 11:03	1
1,2-Dichloroethene, Total	ND		2.0	0.14	ug/L			12/01/16 11:03	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			12/01/16 11:03	1
2-Butanone	ND		5.0	0.47	ug/L			12/01/16 11:03	1
2-Hexanone	ND		5.0	0.25	ug/L			12/01/16 11:03	1
4-Methyl-2-pentanone	ND		5.0	0.22	ug/L			12/01/16 11:03	1
Acetone	ND		2.0	0.55	ug/L			12/01/16 11:03	1
Benzene	ND		1.0	0.10	ug/L			12/01/16 11:03	1
Bromoform	ND		1.0	0.17	ug/L			12/01/16 11:03	1
Methyl bromide	ND		2.0	0.25	ug/L			12/01/16 11:03	1
Carbon disulfide	ND		1.0	0.10	ug/L			12/01/16 11:03	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			12/01/16 11:03	1
Chlorobenzene	ND		1.0	0.11	ug/L			12/01/16 11:03	1
Chlorodibromomethane	ND		1.0	0.14	ug/L			12/01/16 11:03	1
Chloroethane	ND		2.0	0.16	ug/L			12/01/16 11:03	1
Chloroform	ND		1.0	0.10	ug/L			12/01/16 11:03	1
Chloromethane	ND		2.0	0.10	ug/L			12/01/16 11:03	1
cis-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 11:03	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/01/16 11:03	1
Bromodichloromethane	ND		1.0	0.14	ug/L			12/01/16 11:03	1
Ethylbenzene	ND		1.0	0.12	ug/L			12/01/16 11:03	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			12/01/16 11:03	1
Methylene Chloride	ND		1.0	0.27	ug/L			12/01/16 11:03	1
n-Butanol	ND		50	12	ug/L			12/01/16 11:03	1
Styrene	ND		1.0	0.13	ug/L			12/01/16 11:03	1
Tetrachloroethene	ND		1.0	0.18	ug/L			12/01/16 11:03	1
Toluene	ND		1.0	0.14	ug/L			12/01/16 11:03	1
trans-1,2-Dichloroethene	ND		1.0	0.10	ug/L			12/01/16 11:03	1
trans-1,3-Dichloropropene	ND		1.0	0.10	ug/L			12/01/16 11:03	1
Trichloroethene	ND		1.0	0.25	ug/L			12/01/16 11:03	1
Vinyl acetate	ND		2.0	0.18	ug/L			12/01/16 11:03	1
Vinyl chloride	ND		2.0	0.19	ug/L			12/01/16 11:03	1
Xylenes, Total	ND		3.0	0.27	ug/L			12/01/16 11:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 129*		*12/01/16 11:03*	*1*
4-Bromofluorobenzene (Surr)	*95*		*81 - 130*		*12/01/16 11:03*	*1*
Dibromofluoromethane (Surr)	*105*		*81 - 124*		*12/01/16 11:03*	*1*
Toluene-d8 (Surr)	*102*		*87 - 128*		*12/01/16 11:03*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-281852/3
Matrix: Water
Analysis Batch: 281852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	9.87		ug/L		99	85 - 116
1,1,2,2-Tetrachloroethane	10.0	9.49		ug/L		95	80 - 120
1,1,2-Trichloroethane	10.0	9.79		ug/L		98	80 - 120
1,1-Dichloroethene	10.0	9.71		ug/L		97	80 - 120
1,1-Dichloroethane	10.0	9.95		ug/L		99	80 - 120
1,2,4-Trichlorobenzene	10.0	10.2		ug/L		102	75 - 121
1,2-Dibromo-3-Chloropropane	10.0	10.2		ug/L		102	73 - 123
1,2-Dichloroethane	10.0	9.79		ug/L		98	80 - 115
1,2-Dichloroethene, Total	20.0	19.6		ug/L		98	80 - 120
1,2-Dichloropropane	10.0	9.81		ug/L		98	80 - 120
2-Butanone	10.0	10.6		ug/L		106	67 - 127
2-Hexanone	10.0	10.4		ug/L		104	70 - 123
4-Methyl-2-pentanone	10.0	9.54		ug/L		95	75 - 126
Acetone	10.0	10.7		ug/L		107	69 - 129
Benzene	10.0	9.67		ug/L		97	80 - 120
Bromoform	10.0	10.1		ug/L		101	80 - 120
Methyl bromide	10.0	9.06		ug/L		91	70 - 124
Carbon disulfide	10.0	9.76		ug/L		98	80 - 121
Carbon tetrachloride	10.0	9.88		ug/L		99	83 - 125
Chlorobenzene	10.0	9.89		ug/L		99	80 - 120
Chlorodibromomethane	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	9.58		ug/L		96	73 - 119
Chloroform	10.0	9.88		ug/L		99	80 - 120
Chloromethane	10.0	9.65		ug/L		97	72 - 124
cis-1,2-Dichloroethene	10.0	9.79		ug/L		98	80 - 120
cis-1,3-Dichloropropene	10.0	9.90		ug/L		99	80 - 120
Bromodichloromethane	10.0	9.86		ug/L		99	80 - 120
Ethylbenzene	10.0	9.85		ug/L		99	80 - 120
1,2-Dibromoethane	10.0	10.0		ug/L		100	80 - 120
Methylene Chloride	10.0	9.73		ug/L		97	80 - 120
n-Butanol	250	238		ug/L		95	62 - 128
Styrene	10.0	10.0		ug/L		100	81 - 133
Tetrachloroethene	10.0	10.2		ug/L		102	83 - 123
Toluene	10.0	9.79		ug/L		98	80 - 120
trans-1,2-Dichloroethene	10.0	9.80		ug/L		98	80 - 120
trans-1,3-Dichloropropene	10.0	10.0		ug/L		100	82 - 124
Trichloroethene	10.0	9.92		ug/L		99	80 - 120
Vinyl acetate	10.0	9.30		ug/L		93	63 - 140
Vinyl chloride	10.0	9.63		ug/L		96	77 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 129*
4-Bromofluorobenzene (Surr)	*96*		*81 - 130*
Dibromofluoromethane (Surr)	*107*		*81 - 124*
Toluene-d8 (Surr)	*102*		*87 - 128*

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-281852/4
Matrix: Water
Analysis Batch: 281852

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			10.0	9.74		ug/L		97	85 - 116	1	20
1,1,2,2-Tetrachloroethane			10.0	9.75		ug/L		97	80 - 120	3	20
1,1,2-Trichloroethane			10.0	10.0		ug/L		100	80 - 120	2	20
1,1-Dichloroethene			10.0	9.56		ug/L		96	80 - 120	2	20
1,1-Dichloroethane			10.0	9.81		ug/L		98	80 - 120	1	20
1,2,4-Trichlorobenzene			10.0	9.80		ug/L		98	75 - 121	4	20
1,2-Dibromo-3-Chloropropane			10.0	10.5		ug/L		105	73 - 123	3	20
1,2-Dichloroethane			10.0	10.0		ug/L		100	80 - 115	2	20
1,2-Dichloroethene, Total			20.0	19.5		ug/L		97	80 - 120	1	20
1,2-Dichloropropane			10.0	9.82		ug/L		98	80 - 120	0	20
2-Butanone			10.0	11.4		ug/L		114	67 - 127	7	20
2-Hexanone			10.0	11.2		ug/L		112	70 - 123	8	20
4-Methyl-2-pentanone			10.0	10.4		ug/L		104	75 - 126	8	20
Acetone			10.0	11.7		ug/L		117	69 - 129	8	20
Benzene			10.0	9.56		ug/L		96	80 - 120	1	20
Bromoform			10.0	10.2		ug/L		102	80 - 120	1	20
Methyl bromide			10.0	8.91		ug/L		89	70 - 124	2	20
Carbon disulfide			10.0	9.57		ug/L		96	80 - 121	2	20
Carbon tetrachloride			10.0	9.76		ug/L		98	83 - 125	1	20
Chlorobenzene			10.0	9.82		ug/L		98	80 - 120	1	20
Chlorodibromomethane			10.0	10.4		ug/L		104	80 - 120	1	20
Chloroethane			10.0	9.27		ug/L		93	73 - 119	3	20
Chloroform			10.0	9.78		ug/L		98	80 - 120	1	20
Chloromethane			10.0	9.52		ug/L		95	72 - 124	1	20
cis-1,2-Dichloroethene			10.0	9.80		ug/L		98	80 - 120	0	20
cis-1,3-Dichloropropene			10.0	10.0		ug/L		100	80 - 120	1	20
Bromodichloromethane			10.0	10.0		ug/L		100	80 - 120	1	20
Ethylbenzene			10.0	9.65		ug/L		97	80 - 120	2	20
1,2-Dibromoethane			10.0	10.1		ug/L		101	80 - 120	1	20
Methylene Chloride			10.0	9.82		ug/L		98	80 - 120	1	20
n-Butanol			250	268		ug/L		107	62 - 128	12	20
Styrene			10.0	10.0		ug/L		100	81 - 133	0	20
Tetrachloroethene			10.0	9.86		ug/L		99	83 - 123	4	20
Toluene			10.0	9.55		ug/L		95	80 - 120	3	20
trans-1,2-Dichloroethene			10.0	9.67		ug/L		97	80 - 120	1	20
trans-1,3-Dichloropropene			10.0	10.2		ug/L		102	82 - 124	2	20
Trichloroethene			10.0	9.90		ug/L		99	80 - 120	0	20
Vinyl acetate			10.0	9.39		ug/L		94	63 - 140	1	20
Vinyl chloride			10.0	9.41		ug/L		94	77 - 122	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*
4-Bromofluorobenzene (Surr)	*97*		*81 - 130*
Dibromofluoromethane (Surr)	*111*		*81 - 124*
Toluene-d8 (Surr)	*102*		*87 - 128*

GC/MS VOA

Analysis Batch: 281852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20140-1	TB-112216	Total/NA	Water	8260C	
160-20140-2	SW-WS06-112216	Total/NA	Water	8260C	
160-20140-3	SW-WS12-112216	Total/NA	Water	8260C	
160-20140-4	SW-WS11-112216	Total/NA	Water	8260C	
MB 160-281852/6	Method Blank	Total/NA	Water	8260C	
LCS 160-281852/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-281852/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: Westinghouse Electric Company LLC
Project/Site: HDP RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-20140-1

Client Sample ID: TB-112216
Lab Sample ID: 160-20140-1
Date Collected: 11/22/16 07:00
Matrix: Water
Date Received: 11/23/16 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	281852	12/01/16 15:14	SMR	TAL SL

Client Sample ID: SW-WS06-112216
Lab Sample ID: 160-20140-2
Date Collected: 11/22/16 08:05
Matrix: Water
Date Received: 11/23/16 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	281852	12/01/16 15:39	SMR	TAL SL

Client Sample ID: SW-WS12-112216
Lab Sample ID: 160-20140-3
Date Collected: 11/22/16 08:35
Matrix: Water
Date Received: 11/23/16 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	281852	12/01/16 16:04	SMR	TAL SL

Client Sample ID: SW-WS11-112216
Lab Sample ID: 160-20140-4
Date Collected: 11/22/16 09:00
Matrix: Water
Date Received: 11/23/16 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	281852	12/01/16 16:29	SMR	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Certification Summary

Client: Westinghouse Electric Company LLC
Project/Site: HDP RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-20140-1

Laboratory: TestAmerica St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Louisiana	NELAP	6	04080	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	1,2-Dichloropropane
8260C		Water	2-Butanone
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chlorodibromomethane
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Ethylbenzene
8260C		Water	Methyl bromide
8260C		Water	Methylene Chloride
8260C		Water	n-Butanol
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Vinyl acetate
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total

Missouri	State Program	7	780	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloroethane

Laboratory: TestAmerica St. Louis (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Missouri	State Program	7	780	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	1,2-Dichloropropane
8260C		Water	2-Butanone
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chlorodibromomethane
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Ethylbenzene
8260C		Water	Methyl bromide
8260C		Water	Methylene Chloride
8260C		Water	n-Butanol
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Vinyl acetate
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total

NRC	NRC	24-24817-01	12-31-22

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene

Laboratory: TestAmerica St. Louis (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	1,2-Dichloropropane
8260C		Water	2-Butanone
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chlorodibromomethane
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Ethylbenzene
8260C		Water	Methyl bromide
8260C		Water	Methylene Chloride
8260C		Water	n-Butanol
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Vinyl acetate
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total

Method Summary

Client: Westinghouse Electric Company LLC
Project/Site: HDP RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-20140-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Westinghouse Electric Company LLC
Project/Site: HDP RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-20140-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-20140-1	TB-112216	Water	11/22/16 07:00	11/23/16 11:30
160-20140-2	SW-WS06-112216	Water	11/22/16 08:05	11/23/16 11:30
160-20140-3	SW-WS12-112216	Water	11/22/16 08:35	11/23/16 11:30
160-20140-4	SW-WS11-112216	Water	11/22/16 09:00	11/23/16 11:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Instrument ID: VMSL Analysis Batch Number: 281296

Lab Sample ID: IC 160-281296/8 Client Sample ID:

Date Analyzed: 11/29/16 14:17 Lab File ID: LICL6941.D GC Column: RTX-VMS40 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.25	Peak Tail	rhoadess	11/30/16 08:11
1,2-Dibromo-3-Chloropropane	15.15	Missed Peak	rhoadess	11/30/16 08:11
Naphthalene	16.17	Missed Peak	rhoadess	11/30/16 08:11
1,2,3-Trichlorobenzene	16.36	Missed Peak	rhoadess	11/30/16 08:11

Lab Sample ID: IC 160-281296/9 Client Sample ID:

Date Analyzed: 11/29/16 14:43 Lab File ID: LICL6942.D GC Column: RTX-VMS40 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.25	Peak Tail	rhoadess	11/30/16 08:15
1,2-Dibromo-3-Chloropropane	15.15	Missed Peak	rhoadess	11/30/16 08:15
1,2,3-Trichlorobenzene	16.36	Missed Peak	rhoadess	11/30/16 08:15

Lab Sample ID: IC 160-281296/13 Client Sample ID:

Date Analyzed: 11/29/16 16:23 Lab File ID: LICL6946.D GC Column: RTX-VMS40 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.25	Peak Tail	rhoadess	11/30/16 08:27

Lab Sample ID: IC 160-281296/14 Client Sample ID:

Date Analyzed: 11/29/16 16:48 Lab File ID: LICL6947.D GC Column: RTX-VMS40 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.25	Peak Tail	rhoadess	11/30/16 08:29

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8260 NewWkMix_00194	12/04/16	11/27/16	Methanol, Lot DP461	10 mL	8260_2_CLEVE_00046	100 uL	2-Chloroethyl vinyl ether	25 ug/mL
					8260Custom1_00044	125 uL	1,2-Dichloro-1,1,2,2-tetrafluoroethane	25 ug/mL
							n-Nonyl Aldehyde	25 ug/mL
					8260Cyclohexa_00046	100 uL	Cyclohexanone	250 ug/mL
					8260Gases_00184	100 uL	Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Methyl bromide	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					8260Ketones_00046	20 uL	2-Butanone	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone	25 ug/mL
							Acetone	25 ug/mL
					8260MegaMix_00046	100 uL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorobromomethane	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
					8260VinAcetat_00049	50 uL	Vinyl acetate	25 ug/mL
					Acrolein_00040	62.5 uL	Acrolein	125 ug/mL
					Adds(A) 2016_00009	100 uL	1,2,3-Trimethylbenzene	25 ug/mL
							1,3,5-Trichlorobenzene	25 ug/mL
							2-Chloro-1,3-butadiene	25 ug/mL
							2-Nitropropane	50 ug/mL
							Benzyl chloride	25 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isooctane	25 ug/mL
							Isopropyl alcohol	250 ug/mL
							Methacrylonitrile	250 ug/mL
							n-Butanol	625 ug/mL
					Adds(B) 2016_00009	100 uL	Ethyl acetate	50 ug/mL
							Ethyl acrylate	25 ug/mL
							Methyl methacrylate	50 ug/mL
							n-Butyl acetate	25 ug/mL
					Polar Add._00037	100 uL	Acetonitrile	250 ug/mL
							Ethanol	1000 ug/mL
							Isopropyl ether	25 ug/mL
							Propionitrile	250 ug/mL
							Tert-amyl methyl ether	25 ug/mL
							Tert-butyl ethyl ether	25 ug/mL
.8260_2_CLEVE_00046	12/13/16		Restek, Lot A0115628		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.8260Custom1_00044	12/06/16		Accustandard, Lot 215101095-01		(Purchased Reagent)		1,2-Dichloro-1,1,2,2-tetrafluoroethane	2000 ug/mL
							n-Nonyl Aldehyde	2000 ug/mL
.8260Cyclohexa_00046	12/13/16		Restek, Lot A0116621		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.8260Gases_00184	12/04/16		Restek, Lot A0118719		(Purchased Reagent)		Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Methyl bromide	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.8260Ketones_00046	12/13/16		Restek, Lot A0115554		(Purchased Reagent)		2-Butanone	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone	12500 ug/mL
							Acetone	12500 ug/mL
.8260MegaMix_00046	12/13/16		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.8260VinAcetat_00049	12/20/16		Restek, Lot A0120810		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
.Acrolein_00040	12/27/16		Restek, Lot A0121394		(Purchased Reagent)		Acrolein	20000 ug/mL
.Adds(A) 2016_00009	12/27/16		Restek, Lot A0116133		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.Adds(B) 2016_00009	12/27/16		Restek, Lot A0116077		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
.Polar Add._00037	12/13/16		Restek, Lot A0114666		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Ethanol	100000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
8260 Surr 25_00067	12/01/16	11/01/16	Methanol, Lot DP461	25 mL	8260_Surr_00041	250 uL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.8260_Surr_00041	12/01/16		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
8260NewHiWrk_00172	12/04/16	11/27/16	Methanol, Lot DP461	1 mL	8260_2_CLEVE_00046	50 uL	2-Chloroethyl vinyl ether	125 ug/mL
					8260Custom1_00044	62.5 uL	1,2-Dichloro-1,1,2,2-tetrafluoroethane	125 ug/mL
							n-Nonyl Aldehyde	125 ug/mL
					8260Cyclohexa_00046	50 uL	Cyclohexanone	1250 ug/mL
					8260Gases_00184	50 uL	Butadiene	125 ug/mL
							Chloroethane	125 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	125 ug/mL
							Dichlorodifluoromethane	125 ug/mL
							Dichlorofluoromethane	125 ug/mL
							Methyl bromide	125 ug/mL
							Trichlorofluoromethane	125 ug/mL
							Vinyl chloride	125 ug/mL
					8260Ketones_00046	10 uL	2-Butanone	125 ug/mL
							2-Hexanone	125 ug/mL
							4-Methyl-2-pentanone	125 ug/mL
							Acetone	125 ug/mL
					8260MegaMix_00046	50 uL	1,1,1,2-Tetrachloroethane	125 ug/mL
							1,1,1-Trichloroethane	125 ug/mL
							1,1,2,2-Tetrachloroethane	125 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	125 ug/mL
							1,1,2-Trichloroethane	125 ug/mL
							1,1-Dichloroethane	125 ug/mL
							1,1-Dichloroethene	125 ug/mL
							1,1-Dichloropropene	125 ug/mL
							1,2,3-Trichlorobenzene	125 ug/mL
							1,2,3-Trichloropropane	125 ug/mL
							1,2,4-Trichlorobenzene	125 ug/mL
							1,2,4-Trimethylbenzene	125 ug/mL
							1,2-Dibromo-3-Chloropropane	125 ug/mL
							1,2-Dibromoethane	125 ug/mL
							1,2-Dichlorobenzene	125 ug/mL
							1,2-Dichloroethane	125 ug/mL
							1,2-Dichloropropane	125 ug/mL
							1,3,5-Trimethylbenzene	125 ug/mL
							1,3-Dichlorobenzene	125 ug/mL
							1,3-Dichloropropane	125 ug/mL
							1,4-Dichlorobenzene	125 ug/mL
							1,4-Dioxane	2500 ug/mL
							2,2-Dichloropropane	125 ug/mL
							2-Chlorotoluene	125 ug/mL
							2-Methyl-2-propanol	1250 ug/mL
							3-Chloro-1-propene	125 ug/mL
							4-Chlorotoluene	125 ug/mL
							4-Isopropyltoluene	125 ug/mL
							Acrylonitrile	1250 ug/mL
							Benzene	125 ug/mL
							Bromobenzene	125 ug/mL
							Bromodichloromethane	125 ug/mL
							Bromoform	125 ug/mL
							Carbon disulfide	125 ug/mL
							Carbon tetrachloride	125 ug/mL
							Chlorobenzene	125 ug/mL
							Chlorobromomethane	125 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorodibromomethane	125 ug/mL
							Chloroform	125 ug/mL
							cis-1,2-Dichloroethene	125 ug/mL
							cis-1,3-Dichloropropene	125 ug/mL
							Cyclohexane	125 ug/mL
							Dibromomethane	125 ug/mL
							Ethyl ether	125 ug/mL
							Ethyl methacrylate	125 ug/mL
							Ethylbenzene	125 ug/mL
							Hexachlorobutadiene	125 ug/mL
							Hexane	125 ug/mL
							Iodomethane	125 ug/mL
							Isobutyl alcohol	3125 ug/mL
							Isopropylbenzene	125 ug/mL
							m-Xylene & p-Xylene	125 ug/mL
							Methyl acetate	625 ug/mL
							Methyl tert-butyl ether	125 ug/mL
							Methylcyclohexane	125 ug/mL
							Methylene Chloride	125 ug/mL
							n-Butylbenzene	125 ug/mL
							n-Heptane	125 ug/mL
							N-Propylbenzene	125 ug/mL
							Naphthalene	125 ug/mL
							o-Xylene	125 ug/mL
							sec-Butylbenzene	125 ug/mL
							Styrene	125 ug/mL
							tert-Butylbenzene	125 ug/mL
							Tetrachloroethene	125 ug/mL
							Tetrahydrofuran	250 ug/mL
							Toluene	125 ug/mL
							trans-1,2-Dichloroethene	125 ug/mL
							trans-1,3-Dichloropropene	125 ug/mL
							trans-1,4-Dichloro-2-butene	125 ug/mL
							Trichloroethene	125 ug/mL
					8260VinAcetat_00049	25 uL	Vinyl acetate	125 ug/mL
					Acrolein_00040	31.25 uL	Acrolein	625 ug/mL
					Adds(A) 2016_00009	50 uL	1,2,3-Trimethylbenzene	125 ug/mL
							1,3,5-Trichlorobenzene	125 ug/mL
							2-Chloro-1,3-butadiene	125 ug/mL
							2-Nitropropane	250 ug/mL
							Benzyl chloride	125 ug/mL
							Isooctane	125 ug/mL
							Isopropyl alcohol	1250 ug/mL
							Methacrylonitrile	1250 ug/mL
							n-Butanol	3125 ug/mL
					Adds(B) 2016_00009	50 uL	Ethyl acetate	250 ug/mL
							Ethyl acrylate	125 ug/mL
							Methyl methacrylate	250 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butyl acetate	125 ug/mL
					Polar Add._00037	50 uL	Acetonitrile	1250 ug/mL
							Ethanol	5000 ug/mL
							Isopropyl ether	125 ug/mL
							Propionitrile	1250 ug/mL
							Tert-amyl methyl ether	125 ug/mL
							Tert-butyl ethyl ether	125 ug/mL
.8260_2_CLEVE_00046	12/13/16		Restek, Lot A0115628		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.8260Custom1_00044	12/06/16		Accustandard, Lot 215101095-01		(Purchased Reagent)		1,2-Dichloro-1,1,2,2-tetrafluoroethane	2000 ug/mL
							n-Nonyl Aldehyde	2000 ug/mL
.8260Cyclohexa_00046	12/13/16		Restek, Lot A0116621		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.8260Gases_00184	12/04/16		Restek, Lot A0118719		(Purchased Reagent)		Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Methyl bromide	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.8260Ketones_00046	12/13/16		Restek, Lot A0115554		(Purchased Reagent)		2-Butanone	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone	12500 ug/mL
							Acetone	12500 ug/mL
.8260MegaMix_00046	12/13/16		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8260VinAcetat_00049	12/20/16		Restek, Lot A0120810		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
.Acrolein_00040	12/27/16		Restek, Lot A0121394		(Purchased Reagent)		Acrolein	20000 ug/mL
.Adds(A) 2016_00009	12/27/16		Restek, Lot A0116133		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.Adds(B) 2016_00009	12/27/16		Restek, Lot A0116077		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
.Polar Add._00037	12/13/16		Restek, Lot A0114666		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Ethanol	100000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
8260NewICVMix_00185	12/04/16	11/27/16	Methanol, Lot DP461	5 mL	8260GasesSS_00185	50 uL	Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Methyl bromide	25 ug/mL
							Vinyl chloride	25 ug/mL
					8260KetonesSS_00045	10 uL	2-Butanone	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone	25 ug/mL
							Acetone	25 ug/mL
					8260MegaMixSS_00045	50 uL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							Benzene	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
					8260VinAcetSS_00048	25 uL	Vinyl acetate	25 ug/mL
					Add(A)SS 2016_00011	50 uL	n-Butanol	625 ug/mL
.8260GasesSS_00185	12/04/16		Restek, Lot A0115484		(Purchased Reagent)		Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Methyl bromide	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.8260KetonesSS_00045	12/13/16		Restek, Lot A0118013		(Purchased Reagent)		2-Butanone	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone	12500 ug/mL
							Acetone	12500 ug/mL
.8260MegaMixSS_00045	12/13/16		Restek, Lot A0120604		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							Benzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8260VinAcetSS_00048	12/27/16		Restek, Lot A0122475		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
.Add(A)SS 2016_00011	12/27/16		Restek, Lot A0116135		(Purchased Reagent)		n-Butanol	62500 ug/mL
I.S. Working_00141	12/23/16	11/23/16	Methanol, Lot DP461	25 mL	8260 IS(2014)_00034	250 uL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene	25 ug/mL
.8260 IS(2014)_00034	12/23/16		Restek, Lot A0117358		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL

Reagent

8260_2_CLEVE_00046

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0115628

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

REC'D 9-24-16 JDH 1022808 - 810

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,509.2 µg/mL	+/- 14.5887	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBK2735V)		+/- 53.7223	µg/mL	Unstressed
	Purity 99%		+/- 55.2841	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

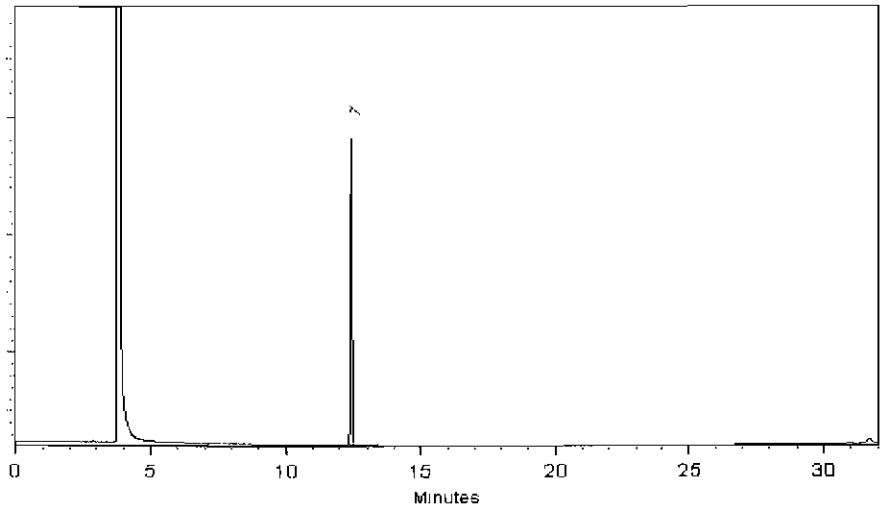
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 24-Nov-2015 **Balance:** B251644995

Jennifer L. Pollino - QC Analyst

Date Passed: 30-Nov-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260_Surr_00041

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0115812

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

REC'D 9-24-16
JDH
1035891-892

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane		2,503.1 µg/mL	+/- 14.5534 µg/mL	Gravimetric
	CAS # 1868-53-7	(Lot 022012)		+/- 140.3482 µg/mL	Unstressed
	Purity 99%			+/- 143.6322 µg/mL	Stressed
2	1,2-Dichloroethane-d4		2,500.1 µg/mL	+/- 14.5360 µg/mL	Gravimetric
	CAS # 17060-07-0	(Lot 14C-191)		+/- 140.1800 µg/mL	Unstressed
	Purity 99%			+/- 143.4600 µg/mL	Stressed
3	Toluene-d8		2,505.0 µg/mL	+/- 14.5643 µg/mL	Gravimetric
	CAS # 2037-26-5	(Lot PR-26282)		+/- 140.4529 µg/mL	Unstressed
	Purity 99%			+/- 143.7393 µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)		2,501.1 µg/mL	+/- 14.5418 µg/mL	Gravimetric
	CAS # 460-00-4	(Lot 20401KOV)		+/- 140.2361 µg/mL	Unstressed
	Purity 99%			+/- 143.5174 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

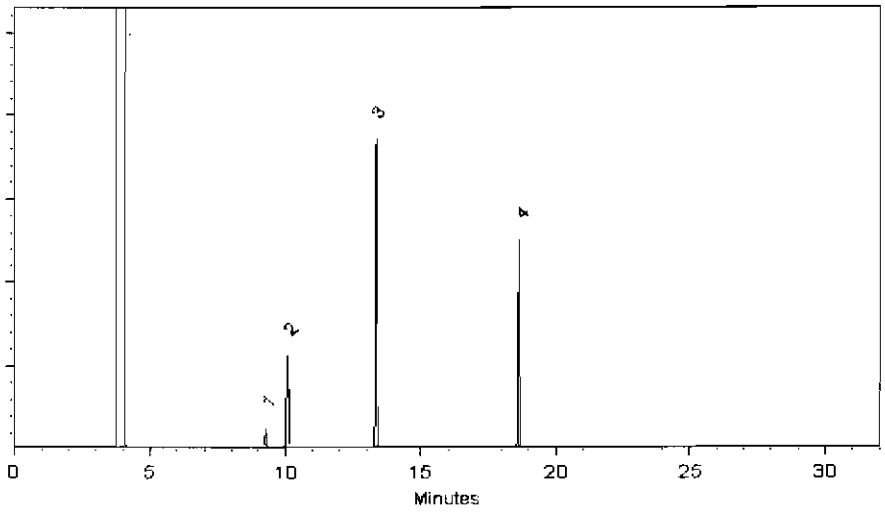
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Cook - Mix Technician **Date Mixed:** 07-Dec-2015 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst **Date Passed:** 10-Dec-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260Custom1_00044

125 Market Street
New Haven, CT 06513
USA

AccuStandard®, Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: S-26138
Description: Custom VOC Standard
Lot: 215101095-01
Solvent: Methanol
Hazards: **HIGHLY FLAMMABLE** - *Refer to SDS for safety info*

Danger 2

Date Certified: Jul 25, 2016
Expiration: Jul 25, 2017
Sample Size: 1 mL
Components: 2
Storage Condition: Refrig (0-5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
Freon 114	76-14-2	99.0	2013	1993
Nonanal	124-19-6	100.0	2004	2004

REC'D 7-26-16
JDH

962484-488

A product with e suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] All weights are traceable through NIST, Test No. 822-275872-11

[2] Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

See reverse side for additional information

Certified By:
Larry Decker, Organic QC Manager

Page 1 of 1

For use in routine laboratory analysis.

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

QR-ORGINC-001
Rev. 5/16

CERTIFICATION REPORT

1. **Quality Documentation:** This certificate is designed in accordance with ISO Guide 31 (Reference Materials - Contents of Certificates and Labels) and ISO Guide 35 (Reference Materials – General and Statistical Principles for Certification).

2. **Quality Standards:**

   ISO Guide 34 - General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025 - General Requirements for the Competence of Testing and Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001 - Quality Management System - Requirements Eagle Registrations Certificate Number 3774

3. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 11. If dilution is required, use only Class A glassware and diluent compatible with all certified analytes in this preparation. All solutions should be thoroughly mixed prior to use.

4. **Raw Materials:** Reference standards are prepared from the highest quality starting materials with defined purities. All analytes and solvents are obtained from pre-qualified vendors and then analyzed or evaluated prior to use.

5. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.

6. **Homogeneity Assessment:** Homogeneity of the finished product is assessed by analyzing sample batches or by other methods consistent with the intended use of the product and by procedures that comply with the appropriate Quality System requirements, and ISO Guide 35.

7. **Stability Assessment:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label. To ensure a uniform solution, mix the contents of the sealed container thoroughly prior to use. Care should be taken not to contaminate the contents of the original container.

8. **Analytical Quality Control:** Products are tested by validated analytical methods specified in the manufacturer's quality system.

9. **Uncertainty Statistics and Confidence Limits:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_m = \sqrt{(u(P))^2 + (u(m))^2 + (u(V))^2}$. The expanded uncertainty, U_{CRM} assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level. The U_{CRM} for organic products is ±5%, the U_{CRM} for inorganic products is ±2%.

10. **Warranties:** The manufacturer warrants that its products shall conform to the description of such products as provided in its catalog or on the specific product label. This warranty is exclusive, and the manufacturer makes no other warranty, express or implied, including any implied warranty of merchantability or fitness for any particular purpose.

11. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. Due to the hazardous nature, only trained personnel should handle this product. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8260Cyclohexa_00046

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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569727 **Lot No.:** A0116621

Description : 8260 List 2/ Std #3 Cyclohexanone (2015)

8260 List 2/ Std #3 Cyclohexanone (2015) 25,000 µg/ml, Water, 1 ml/ampul

REC'D 9-24-16 JDH 1022814-816

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2019 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Cyclohexanone		25,086.7 µg/mL	+/-	146.8879	µg/mL	Gravimetric
	CAS # 108-94-1	(Lot MKBN5282V)		+/-	1,513.6896	µg/mL	Unstressed
	Purity 99%			+/-	1,517.2828	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

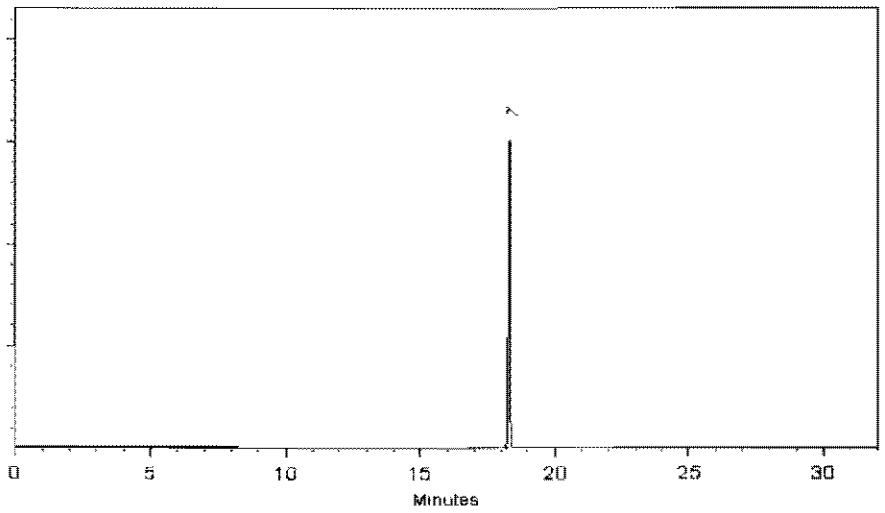
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 17-Jan-2016 **Balance:** 1125113331

Amanda Miller - QC Analyst

Date Passed: 19-Jan-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260Gases_00184

RESTEK
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0118719

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

REC'D 9-24-16 JDH

1012263 - 27Z

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,504.2 µg/mL	+/- 18.7109 µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/- 140.8995 µg/mL	Unstressed
	Purity 99%		+/- 144.1737 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.6 µg/mL	+/- 18.9897 µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBG1480V)		+/- 140.7385 µg/mL	Unstressed
	Purity 99%		+/- 144.0070 µg/mL	Stressed
3	Vinyl chloride	2,499.8 µg/mL	+/- 20.8058 µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 25LPST)		+/- 140.9486 µg/mL	Unstressed
	Purity 99%		+/- 144.2103 µg/mL	Stressed
4	1,3-Butadiene	2,500.6 µg/mL	+/- 21.2874 µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/- 141.0663 µg/mL	Unstressed
	Purity 99%		+/- 144.3274 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,500.1 µg/mL	+/- 22.8576 µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/- 141.2859 µg/mL	Unstressed
	Purity 99%		+/- 144.5409 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/- 19.5969 µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/- 140.8062 µg/mL	Unstressed
	Purity 99%		+/- 144.0725 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,504.7 µg/mL	+/- 19.5937 µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/- 141.0449 µg/mL	Unstressed
	Purity 99%		+/- 144.3170 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,497.3	µg/mL	+/-	18.0543	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBF6387V)			+/-	140.4322	µg/mL	Unstressed
	Purity 99%				+/-	143.6992	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

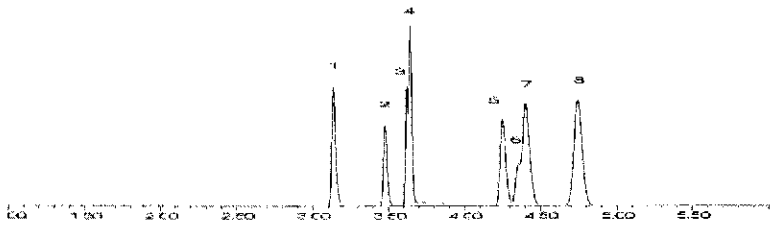
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 13-Apr-2016 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 19-Apr-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260GasesSS_00185

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.sec **Lot No.:** A0115484

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/mL P&T Methanol, 1 ml/ampul

REC'D 9-24-16
JDH
1012273-282

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 22274) **Purity** 99%	2,505.6 µg/mL	+/- 16.6251 µg/mL +/- 140.7169 µg/mL +/- 143.9990 µg/mL		Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,517.3 µg/mL	+/- 17.3796 µg/mL +/- 141.4522 µg/mL +/- 144.7477 µg/mL		Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,510.2 µg/mL	+/- 16.6342 µg/mL +/- 140.9727 µg/mL +/- 144.2609 µg/mL		Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 22331) **Purity** 99%	2,516.5 µg/mL	+/- 17.4874 µg/mL +/- 141.4240 µg/mL +/- 144.7182 µg/mL		Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot Q119-46) **Purity** 99%	2,511.5 µg/mL	+/- 16.8310 µg/mL +/- 141.0664 µg/mL +/- 144.3557 µg/mL		Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,504.8 µg/mL	+/- 16.4341 µg/mL +/- 140.6469 µg/mL +/- 143.9283 µg/mL		Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4.SEC (Lot SHBC0858V) **Purity** 99%	2,500.5 µg/mL	+/- 16.1659 µg/mL +/- 140.3776 µg/mL +/- 143.6540 µg/mL		Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,524.5	µg/mL	+/-	16.8928	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q12B-59)			+/-	141.7952	µg/mL	Unstressed
	Purity 99%				+/-	145.1017	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

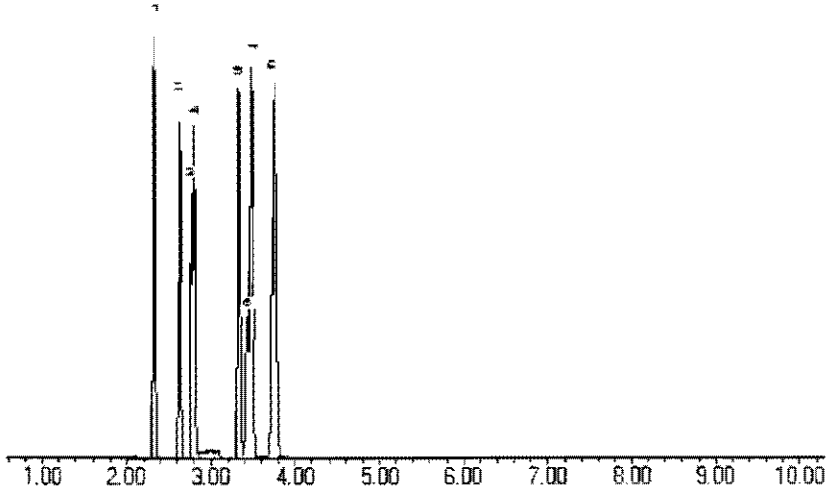
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Klbe - Mix Technician

Date Mixed: 17-Nov-2015 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst

Date Passed: 10-Dec-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260Ketones_00046

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Catalog No. : 569721 **Lot No.:** A0115554

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

REC'D 9-24-16 JDH

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

1022802-804

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone		12,501.8 µg/mL	+/- 72.6865	µg/mL	Gravimetric
	CAS # 67-64-1	(Lot 07196AK)		+/- 754.2890	µg/mL	Unstressed
	Purity 99%			+/- 756.0798	µg/mL	Stressed
2	2-Butanone (MEK)		12,499.7 µg/mL	+/- 72.6744	µg/mL	Gravimetric
	CAS # 78-93-3	(Lot SHBG0444V)		+/- 754.1625	µg/mL	Unstressed
	Purity 98%			+/- 755.9530	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,500.6 µg/mL	+/- 72.6796	µg/mL	Gravimetric
	CAS # 108-10-1	(Lot SHBF9556V)		+/- 754.2166	µg/mL	Unstressed
	Purity 99%			+/- 756.0072	µg/mL	Stressed
4	2-Hexanone		12,502.4 µg/mL	+/- 72.6900	µg/mL	Gravimetric
	CAS # 591-78-6	(Lot MKBT3158V)		+/- 754.3252	µg/mL	Unstressed
	Purity 99%			+/- 756.1161	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

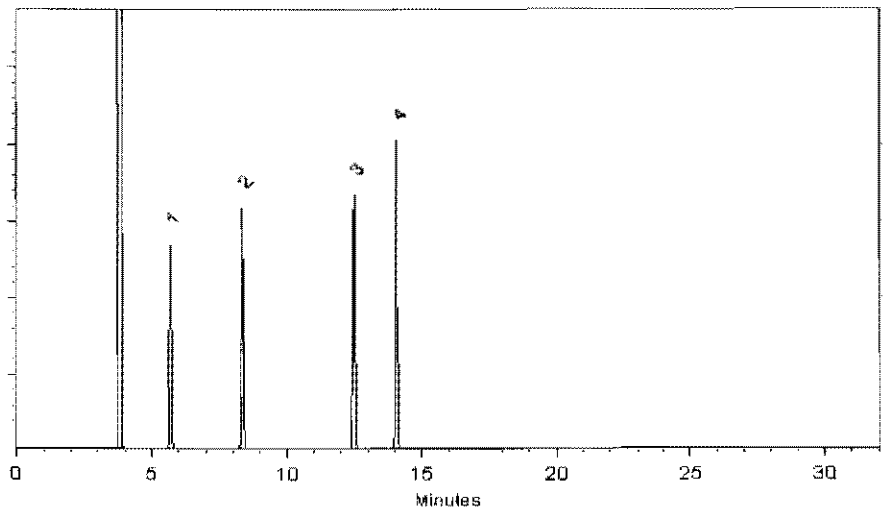
Carrier Gas:
hydrogen-constant pressure 11.0 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Fallon - Mfg Technician

Date Mixed: 20-Nov-2015 **Balance:** B251644995

Jennifer L. Pollino - QC Analyst

Date Passed: 24-Nov-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 60397

Reagent

8260KetonesSS_00045

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Catalog No. : 569721.sec **Lot No.:** A0118013

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/mL, P&T Methanol/Water (90:10), 1 mL/ampul

REC'D 9-24-16 JOH

1022805-807

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone		12,550.0 µg/mL	+/- 73.4830	µg/mL	Gravimetric
	CAS # 67-64-1.SEC	(Lot P14A572)		+/- 757.2470	µg/mL	Unstressed
	Purity 99%			+/- 759.0446	µg/mL	Stressed
2	2-Butanone (MEK)		12,603.0 µg/mL	+/- 73.7933	µg/mL	Gravimetric
	CAS # 78-93-3.SEC	(Lot RA58J)		+/- 760.4450	µg/mL	Unstressed
	Purity 99%			+/- 762.2502	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,591.5 µg/mL	+/- 73.7260	µg/mL	Gravimetric
	CAS # 108-10-1.SEC	(Lot E29T040)		+/- 759.7511	µg/mL	Unstressed
	Purity 99%			+/- 761.5546	µg/mL	Stressed
4	2-Hexanone		12,588.0 µg/mL	+/- 73.7055	µg/mL	Gravimetric
	CAS # 591-78-6.SEC	(Lot V3NRA)		+/- 759.5399	µg/mL	Unstressed
	Purity 99%			+/- 761.3429	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

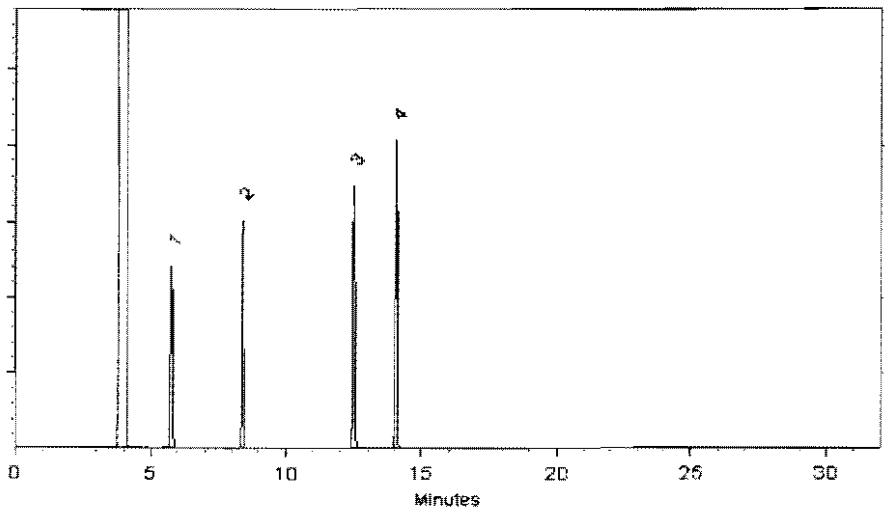
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Isaiah Harrison - Mix Technician

Date Mixed: 14-Mar-2016 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst

Date Passed: 16-Mar-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260MegaMix_00046

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Testing Laboratory
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569720 **Lot No.:** A0118177

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

REC'D 9-24-16 JDH

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2018 **Storage:** 0°C or colder

1022796-798

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether)		2,503.5	µg/mL	+/- 14.5556	µg/mL	Gravimetric
	CAS # 60-29-7	(Lot SHBG1462V)			+/- 151.0472	µg/mL	Unstressed
	Purity 99%				+/- 151.4059	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)		2,500.0	µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 76-13-1	(Lot 00004562)			+/- 150.8361	µg/mL	Unstressed
	Purity 99%				+/- 151.1942	µg/mL	Stressed
3	1,1-Dichloroethane		2,500.1	µg/mL	+/- 14.5359	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 00008621)			+/- 150.8436	µg/mL	Unstressed
	Purity 99%				+/- 151.2017	µg/mL	Stressed
4	tert-Butanol (TBA)		25,033.4	µg/mL	+/- 145.5386	µg/mL	Gravimetric
	CAS # 75-65-0	(Lot SHBD0362V)			+/- 1,510.3737	µg/mL	Unstressed
	Purity 99%				+/- 1,513.9596	µg/mL	Stressed
5	Iodomethane (methyl iodide)		2,502.9	µg/mL	+/- 14.5522	µg/mL	Gravimetric
	CAS # 74-88-4	(Lot SHBF2149V)			+/- 151.0123	µg/mL	Unstressed
	Purity 98%				+/- 151.3708	µg/mL	Stressed
6	Methyl acetate		12,508.6	µg/mL	+/- 72.7223	µg/mL	Gravimetric
	CAS # 79-20-9	(Lot SHBD7134V)			+/- 754.6987	µg/mL	Unstressed
	Purity 98%				+/- 756.4905	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)		2,500.0	µg/mL	+/- 19.2743	µg/mL	Gravimetric
	CAS # 107-05-1	(Lot SHBF8133V)			+/- 151.3663	µg/mL	Unstressed
	Purity 99%				+/- 151.7231	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,521.4	µg/mL	+/-	14.6595	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBF9870V)			+/-	152.1257	µg/mL	Unstressed
	Purity 99%				+/-	152.4869	µg/mL	Stressed
9	Carbon disulfide		2,516.0	µg/mL	+/-	14.6282	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot S20A856)			+/-	151.8014	µg/mL	Unstressed
	Purity 99%				+/-	152.1618	µg/mL	Stressed
10	Acrylonitrile		25,001.3	µg/mL	+/-	145.3518	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot J08Z057)			+/-	1,508.4355	µg/mL	Unstressed
	Purity 99%				+/-	1,512.0167	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,507.8	µg/mL	+/-	14.5807	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBV2831V)			+/-	151.3079	µg/mL	Unstressed
	Purity 98%				+/-	151.6671	µg/mL	Stressed
12	n-Hexane (C6)		2,512.4	µg/mL	+/-	14.6072	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBF7674V)			+/-	151.5827	µg/mL	Unstressed
	Purity 99%				+/-	151.9426	µg/mL	Stressed
13	1,1-dichloroethene		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot 73896KMV)			+/-	151.3263	µg/mL	Unstressed
	Purity 99%				+/-	151.6856	µg/mL	Stressed
14	2,2-Dichloropropane		2,507.6	µg/mL	+/-	14.5795	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBL9720V)			+/-	151.2961	µg/mL	Unstressed
	Purity 99%				+/-	151.6553	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,509.8	µg/mL	+/-	14.5919	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)			+/-	151.4243	µg/mL	Unstressed
	Purity 99%				+/-	151.7838	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,815.4	µg/mL	+/-	365.1949	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBD1647V)			+/-	3,789.9281	µg/mL	Unstressed
	Purity 99%				+/-	3,798.9260	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot MKBV2134V)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
18	Bromochloromethane		2,507.0	µg/mL	+/-	14.5759	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)			+/-	151.2584	µg/mL	Unstressed
	Purity 99%				+/-	151.6175	µg/mL	Stressed
19	Tetrahydrofuran		5,025.3	µg/mL	+/-	29.2172	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBG2910V)			+/-	303.1956	µg/mL	Unstressed
	Purity 99%				+/-	303.9154	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.9	µg/mL	+/-	14.5868	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B15MW0705)			+/-	151.3715	µg/mL	Unstressed
	Purity 99%				+/-	151.7309	µg/mL	Stressed
21	Cyclohexane		2,503.4	µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKBV3194V)			+/-	151.0397	µg/mL	Unstressed
	Purity 99%				+/-	151.3983	µg/mL	Stressed
22	1,1-Dichloropropene		2,507.4	µg/mL	+/-	14.5781	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot PR09161302)			+/-	151.2810	µg/mL	Unstressed
	Purity 99%				+/-	151.6402	µg/mL	Stressed
23	carbon tetrachloride		2,505.9	µg/mL	+/-	14.5694	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG1763V)			+/-	151.1905	µg/mL	Unstressed
	Purity 99%				+/-	151.5495	µg/mL	Stressed

24	n-Heptane (C7)		2.510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot MKBV6176V)			+/-	151.4847	µg/mL	Unstressed
	Purity 99%				+/-	151.8443	µg/mL	Stressed
25	1,2-Dichloroethane		2.511.1	µg/mL	+/-	14.5999	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot MKBV4565V)			+/-	151.5073	µg/mL	Unstressed
	Purity 99%				+/-	151.8670	µg/mL	Stressed
26	Benzene		2.502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBG1169V)			+/-	151.0095	µg/mL	Unstressed
	Purity 99%				+/-	151.3681	µg/mL	Stressed
27	Trichloroethene		2.500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBF0943V)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
28	Methylcyclohexane		2.503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot 50996APV)			+/-	151.0699	µg/mL	Unstressed
	Purity 99%				+/-	151.4285	µg/mL	Stressed
29	1,2-Dichloropropane		2.523.5	µg/mL	+/-	14.6718	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot 01113D0V)			+/-	152.2539	µg/mL	Unstressed
	Purity 99%				+/-	152.6154	µg/mL	Stressed
30	bromodichloromethane		2.509.0	µg/mL	+/-	14.5878	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKBL1617V)			+/-	151.3818	µg/mL	Unstressed
	Purity 98%				+/-	151.7412	µg/mL	Stressed
31	1,4-Dioxane		50.018.1	µg/mL	+/-	290.7945	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBG6312V)			+/-	3,017.8137	µg/mL	Unstressed
	Purity 99%				+/-	3,024.9785	µg/mL	Stressed
32	Dibromomethane		2.511.4	µg/mL	+/-	14.6013	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10183283)			+/-	151.5222	µg/mL	Unstressed
	Purity 98%				+/-	151.8820	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2.506.0	µg/mL	+/-	14.5701	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 22622)			+/-	151.1981	µg/mL	Unstressed
	Purity 99%				+/-	151.5571	µg/mL	Stressed
34	Toluene		2.515.5	µg/mL	+/-	14.6253	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot MKBV5601V)			+/-	151.7713	µg/mL	Unstressed
	Purity 99%				+/-	152.1316	µg/mL	Stressed
35	Ethyl methacrylate		2.503.1	µg/mL	+/-	14.5534	µg/mL	Gravimetric
	CAS # 97-63-2	(Lot SHBD9190V)			+/-	151.0246	µg/mL	Unstressed
	Purity 99%				+/-	151.3832	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2.508.0	µg/mL	+/-	14.5817	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot C584177)			+/-	151.3188	µg/mL	Unstressed
	Purity 99%				+/-	151.6780	µg/mL	Stressed
37	1,1,2-Trichloroethane		2.508.4	µg/mL	+/-	14.5839	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	151.3414	µg/mL	Unstressed
	Purity 99%				+/-	151.7007	µg/mL	Stressed
38	1,3-Dichloropropane		2.522.8	µg/mL	+/-	14.6675	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBG2162V)			+/-	152.2087	µg/mL	Unstressed
	Purity 99%				+/-	152.5701	µg/mL	Stressed
39	Tetrachloroethene		2.518.9	µg/mL	+/-	14.6450	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBD9374V)			+/-	151.9749	µg/mL	Unstressed
	Purity 99%				+/-	152.3357	µg/mL	Stressed

40	dibromochloromethane		2,505.4	µg/mL	+/-	14.5664	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBQ6577V)			+/-	151.1601	µg/mL	Unstressed
	Purity 98%				+/-	151.5190	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetrie
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	151.1453	µg/mL	Unstressed
	Purity 99%				+/-	151.5041	µg/mL	Stressed
42	Chlorobenzene		2,505.6	µg/mL	+/-	14.5679	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)			+/-	151.1755	µg/mL	Unstressed
	Purity 99%				+/-	151.5344	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	151.1453	µg/mL	Unstressed
	Purity 99%				+/-	151.5041	µg/mL	Stressed
44	Ethylbenzene		2,506.1	µg/mL	+/-	14.5708	µg/mL	Gravimetrie
	CAS # 100-41-4	(Lot SHBG5920V)			+/-	151.2056	µg/mL	Unstressed
	Purity 99%				+/-	151.5646	µg/mL	Stressed
45	m-Xylene		1,254.4	µg/mL	+/-	7.2930	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF8095V)			+/-	75.6820	µg/mL	Unstressed
	Purity 99%				+/-	75.8617	µg/mL	Stressed
46	p-Xylene		1,250.0	µg/mL	+/-	7.2676	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	75.4180	µg/mL	Unstressed
	Purity 99%				+/-	75.5971	µg/mL	Stressed
47	o-Xylene		2,506.3	µg/mL	+/-	14.5716	µg/mL	Gravimetrie
	CAS # 95-47-6	(Lot SHBF7003V)			+/-	151.2132	µg/mL	Unstressed
	Purity 99%				+/-	151.5722	µg/mL	Stressed
48	Styrene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetrie
	CAS # 100-42-5	(Lot MKBS7097V)			+/-	151.0699	µg/mL	Unstressed
	Purity 99%				+/-	151.4285	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,509.4	µg/mL	+/-	14.5897	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10185056)			+/-	151.4017	µg/mL	Unstressed
	Purity 99%				+/-	151.7612	µg/mL	Stressed
50	bromoform		2,503.3	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	151.0322	µg/mL	Unstressed
	Purity 99%				+/-	151.3907	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)			+/-	151.1378	µg/mL	Unstressed
	Purity 99%				+/-	151.4966	µg/mL	Stressed
52	chloroform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetrie
	CAS # 67-66-3	(Lot MKBV2089V)			+/-	151.3037	µg/mL	Unstressed
	Purity 99%				+/-	151.6629	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,504.8	µg/mL	+/-	14.5628	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)			+/-	151.1227	µg/mL	Unstressed
	Purity 99%				+/-	151.4815	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.7	µg/mL	+/-	14.5334	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP6041V)			+/-	150.8172	µg/mL	Unstressed
	Purity 95%				+/-	151.1753	µg/mL	Stressed
55	n-Propylbenzene		2,507.5	µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBJ0332V)			+/-	151.2886	µg/mL	Unstressed
	Purity 99%				+/-	151.6478	µg/mL	Stressed

56	Bromobenzene		2,515.1	µg/mL	+/-	14.6232	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot MKBD4032V)			+/-	151.7486	µg/mL	Unstressed
	Purity 99%				+/-	152.1089	µg/mL	Stressed
57	1,2,4-Trimethylbenzene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	151.0566	µg/mL	Unstressed
	Purity 98%				+/-	151.4152	µg/mL	Stressed
58	2-Chlorotoluene		2,502.1	µg/mL	+/-	14.5476	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBH8892V)			+/-	150.9643	µg/mL	Unstressed
	Purity 99%				+/-	151.3227	µg/mL	Stressed
59	4-Chlorotoluene		2,512.6	µg/mL	+/-	14.6086	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	151.5978	µg/mL	Unstressed
	Purity 99%				+/-	151.9577	µg/mL	Stressed
60	tert-Butylbenzene		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot S52237V)			+/-	151.3037	µg/mL	Unstressed
	Purity 99%				+/-	151.6629	µg/mL	Stressed
61	1,3,5-Trimethylbenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBJ6245V)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
62	sec-Butylbenzene		2,521.8	µg/mL	+/-	14.6617	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBK3151V)			+/-	152.1484	µg/mL	Unstressed
	Purity 99%				+/-	152.5096	µg/mL	Stressed
63	p-Isopropyltoluene (p-Cymene)		2,502.6	µg/mL	+/-	14.5505	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKBK4439V)			+/-	150.9945	µg/mL	Unstressed
	Purity 99%				+/-	151.3529	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,505.8	µg/mL	+/-	14.5686	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBM5751V)			+/-	151.1830	µg/mL	Unstressed
	Purity 99%				+/-	151.5419	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,504.1	µg/mL	+/-	14.5592	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	151.0850	µg/mL	Unstressed
	Purity 99%				+/-	151.4437	µg/mL	Stressed
66	n-Butylbenzene		2,503.3	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09418JJV)			+/-	151.0322	µg/mL	Unstressed
	Purity 99%				+/-	151.3907	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,505.5	µg/mL	+/-	14.5672	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	151.1679	µg/mL	Unstressed
	Purity 99%				+/-	151.5268	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.6	µg/mL	+/-	14.5854	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FB101-JM)			+/-	151.3565	µg/mL	Unstressed
	Purity 99%				+/-	151.7158	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,518.6	µg/mL	+/-	14.6435	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot 26896BM)			+/-	151.9598	µg/mL	Unstressed
	Purity 99%				+/-	152.3206	µg/mL	Stressed
70	Hexachlorobutadiene		2,499.9	µg/mL	+/-	14.5344	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	150.8275	µg/mL	Unstressed
	Purity 98%				+/-	151.1856	µg/mL	Stressed
71	Naphthalene		2,514.9	µg/mL	+/-	14.6217	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	151.7336	µg/mL	Unstressed
	Purity 99%				+/-	152.0938	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,502.0 µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBS4859V)		+/-	150.9567	µg/mL	Unstressed
	Purity 99%			+/-	151.3151	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

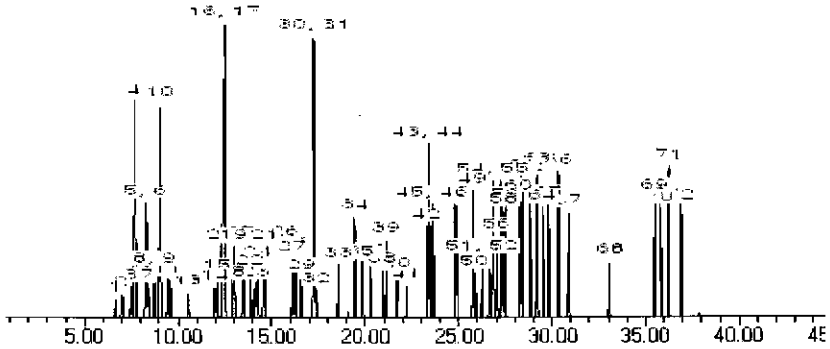
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Lauren

Date Mixed: 21-Mar-2016 **Balance:** 1125113331

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 28-Mar-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260MegaMixSS_00045

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569720.sec **Lot No.:** A0120604

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/mL, P&T Methanol, 1 mL/ampul

REC'D 9-24-16 JOH 1022799-801

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,501.1 µg/mL	+/- 14.5415 µg/mL +/- 150.9014 µg/mL +/- 151.2597 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 150.9040 µg/mL +/- 151.2622 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 2767000) **Purity** 99%	2,500.8 µg/mL	+/- 14.5396 µg/mL +/- 150.8813 µg/mL +/- 151.2395 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,004.1 µg/mL	+/- 145.3683 µg/mL +/- 1,508.6067 µg/mL +/- 1,512.1884 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,501.0 µg/mL	+/- 14.5410 µg/mL +/- 150.8964 µg/mL +/- 151.2547 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9.SEC (Lot 6WOXM) **Purity** 99%	12,501.6 µg/mL	+/- 72.6817 µg/mL +/- 754.2781 µg/mL +/- 756.0689 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot VEBOC) **Purity** 98%	2,501.0 µg/mL	+/- 14.5408 µg/mL +/- 150.8940 µg/mL +/- 151.2522 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
9	Carbon disulfide		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
10	Acrylonitrile		25,020.0	µg/mL	+/-	145.4608	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot UERIL-DA)			+/-	1,509.5667	µg/mL	Unstressed
	Purity 99%				+/-	1,513.1507	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,500.8	µg/mL	+/-	14.5401	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	150.8866	µg/mL	Unstressed
	Purity 98%				+/-	151.2448	µg/mL	Stressed
12	n-Hexane (C6)		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
13	1,1-Dichloroethane		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 5035700)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot GI01)			+/-	150.8738	µg/mL	Unstressed
	Purity 99%				+/-	151.2320	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,501.3	µg/mL	+/-	14.5426	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	150.9125	µg/mL	Unstressed
	Purity 97%				+/-	151.2708	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,503.0	µg/mL	+/-	363.3788	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot 83NHH)			+/-	3,771.0811	µg/mL	Unstressed
	Purity 99%				+/-	3,780.0343	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
18	Bromochloromethane		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 1775400)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
19	Tetrahydrofuran		5,000.3	µg/mL	+/-	29.0719	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot K3V7J-SJ)			+/-	301.6872	µg/mL	Unstressed
	Purity 99%				+/-	302.4035	µg/mL	Stressed
20	1,1,1-Trichloroethane		2,501.3	µg/mL	+/-	14.5429	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot CS160712)			+/-	150.9162	µg/mL	Unstressed
	Purity 98%				+/-	151.2745	µg/mL	Stressed
21	Cyclohexane		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
22	1,1-Dichloropropene		2,500.4	µg/mL	+/-	14.5378	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 4672600)			+/-	150.8626	µg/mL	Unstressed
	Purity 96%				+/-	151.2208	µg/mL	Stressed
23	Carbon tetrachloride		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed

24	n-Heptane (C7)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot OGM01)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
25	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
26	Benzene		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	150.8738	µg/mL	Unstressed
	Purity 99%				+/-	151.2320	µg/mL	Stressed
27	Trichloroethene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
28	Methylcyclohexane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot 24MSD-CD)			+/-	150.9492	µg/mL	Unstressed
	Purity 99%				+/-	151.3076	µg/mL	Stressed
29	1,2-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot OGG01)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
30	Bromodichloromethane		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 10171168)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
31	1,4-Dioxane		50,014.8	µg/mL	+/-	290.7749	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot CHA4A)			+/-	3,017.6100	µg/mL	Unstressed
	Purity 99%				+/-	3,024.7743	µg/mL	Stressed
32	Dibromomethane		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FG101-OICH)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 7ZLXJ-TJ)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
34	Toluene		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
35	Ethyl methacrylate		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot 2ECIC)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,500.5	µg/mL	+/-	14.5379	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 3440900)			+/-	150.8644	µg/mL	Unstressed
	Purity 98%				+/-	151.2226	µg/mL	Stressed
38	1,3-Dichloropropane		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
39	Tetrachloroethene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed

40	Dibromochloromethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10181507)			+/-	150.9491	µg/mL	Unstressed
	Purity 97%				+/-	151.3074	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
42	Chlorobenzene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
43	1,1,1,2-Tetrachloroethane		2,501.0	µg/mL	+/-	14.5408	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)			+/-	150.8940	µg/mL	Unstressed
	Purity 98%				+/-	151.2522	µg/mL	Stressed
44	Ethylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
45	m-Xylene		1,250.9	µg/mL	+/-	7.2727	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	75.4708	µg/mL	Unstressed
	Purity 99%				+/-	75.6500	µg/mL	Stressed
46	p-Xylene		1,250.8	µg/mL	+/-	7.2720	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	75.4633	µg/mL	Unstressed
	Purity 99%				+/-	75.6425	µg/mL	Stressed
47	o-Xylene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01-KTPK)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
48	Styrene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
50	Bromoform		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5139000)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
51	1,1,2,2-Tetrachloroethane		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
52	Chloroform		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 67-66-3.SEC	(Lot 1297547)			+/-	150.8738	µg/mL	Unstressed
	Purity 99%				+/-	151.2320	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)			+/-	150.9236	µg/mL	Unstressed
	Purity 98%				+/-	151.2819	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,500.5	µg/mL	+/-	14.5379	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-3)			+/-	150.8644	µg/mL	Unstressed
	Purity 98%				+/-	151.2226	µg/mL	Stressed
55	n-Propylbenzene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC-1T)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%				+/-	151.1942	µg/mL	Stressed

56	Bromobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
57	1,2,4-Trimethylbenzene		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot SC7LO-QA)			+/-	150.8738	µg/mL	Unstressed
	Purity 99%				+/-	151.2320	µg/mL	Stressed
58	2-Chlorotoluene		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	150.8738	µg/mL	Unstressed
	Purity 99%				+/-	151.2320	µg/mL	Stressed
59	4-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
60	tert-Butylbenzene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot OGN01-CAI)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
61	1,3,5-Trimethylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot FGH02-CMLN)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
62	sec-Butylbenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.5	µg/mL	+/-	14.5441	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 1195000)			+/-	150.9278	µg/mL	Unstressed
	Purity 96%				+/-	151.2861	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
66	n-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot OGN01-PNP)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot 4NRGF-OT)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,500.3	µg/mL	+/-	14.5369	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	150.8539	µg/mL	Unstressed
	Purity 97%				+/-	151.2121	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
70	Hexachlorobutadiene		2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 4974700)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%				+/-	151.2374	µg/mL	Stressed
71	Naphthalene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot SKZ5N)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%				+/-	151.1942	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,501.6 µg/mL	+/-	14.5444	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.9310	µg/mL	Unstressed
	Purity 98%			+/-	151.2893	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

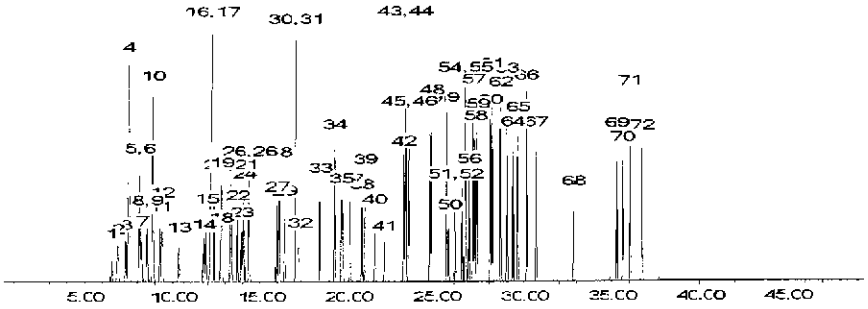
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael Moye

Jennifer L. Pollino - QC Analyst

Date Mixed: 25-Jul-2016 **Balance:** 1127510105

Date Passed: 28-Jul-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260VinAcetat_00049

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0120810

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

REC'D 11-4-16 JDH

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2017 **Storage:** 0°C or colder

1051440-441

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.: K=2)			
1	Vinyl acetate		5,016.0 µg/mL	+/-	29.4367	µg/mL	Gravimetric
	CAS # 108-05-4	(Lot STBD7333V)		+/-	302.6640	µg/mL	Unstressed
	Purity 99%			+/-	303.3824	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

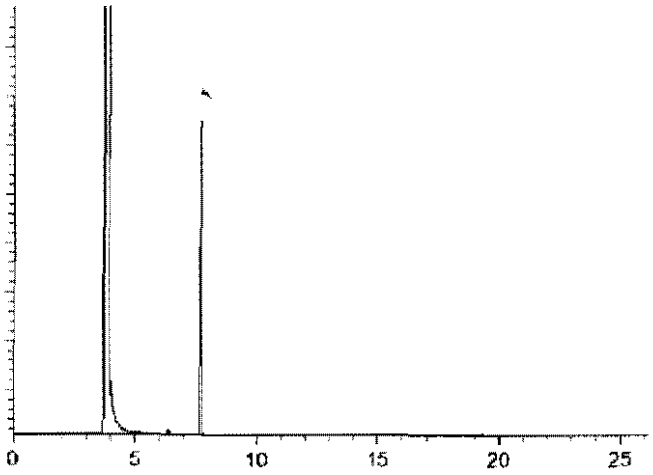
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Fallon - Mix Technician

Date Mixed: 04-Aug-2016 **Balance:** B251644995

Date Passed: 08-Aug-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8260VinAcetSS_00048

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724.sec **Lot No.:** A0122475

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

RECD 11-4-16 JDH

1051442-443

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,006.7 µg/mL	+/- 29.3819	µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot F3Z5C)		+/- 302.1008	µg/mL	Unstressed
	Purity 99%		+/- 302.8179	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

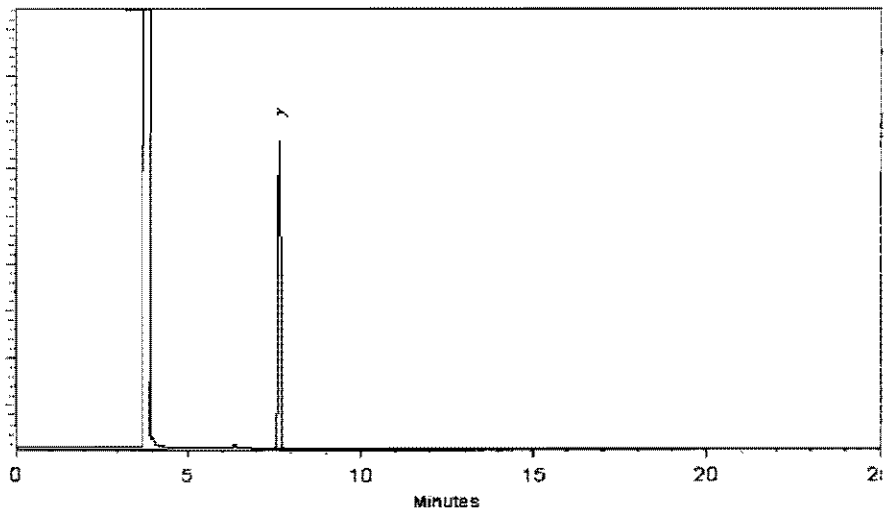
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 27-Oct-2016 **Balance:** 1127510105

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Nov-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

Acrolein_00040

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0121394

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

REC'D 10-26-16
JDH
1035148-149

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acrolein		19,758.0	µg/mL	+/- 115.6874	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 160518JLM)			+/- 633.5036	µg/mL	Unstressed
	Purity 99%				+/- 736.3786	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

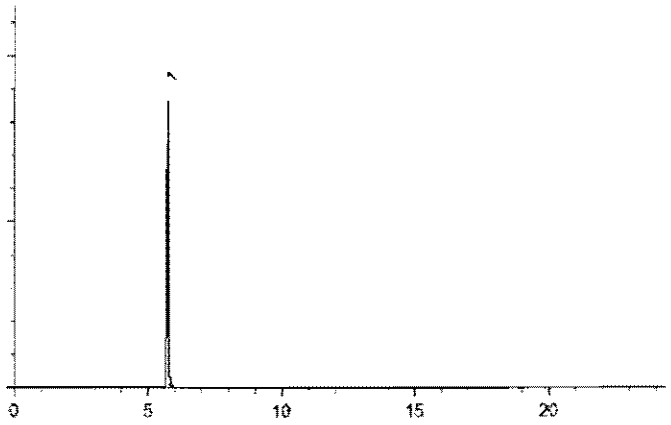
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 07-Sep-2016 **Balance:** B251644995

Date Passed: 20-Oct-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

Polar Add._00037

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569728 **Lot No.:** A0114666

Description : 8260 List 3/ Std#1 Polar Additions (2015)

8260 List 3/ Std#1 Polar Additions (2015) 2500-100,000 µg/ml, 1 ml/ampul

REC'D 9-24-16 JDH 1022820-822

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Ethanol		100,005.8 µg/mL	+/- 581.4117 µg/mL		Gravimetric
	CAS # 64-17-5	(Lot PG0219)		+/- 4,947.0657 µg/mL		Unstressed
	Purity 99%			+/- 5,070.0789 µg/mL		Stressed
2	Acetonitrile		25,001.0 µg/mL	+/- 145.3505 µg/mL		Gravimetric
	CAS # 75-05-8	(Lot SHBB3177V)		+/- 1,236.7460 µg/mL		Unstressed
	Purity 98%			+/- 1,267.4988 µg/mL		Stressed
3	Diisopropyl ether (DIPE)		2,500.8 µg/mL	+/- 14.5396 µg/mL		Gravimetric
	CAS # 108-20-3	(Lot SHBB6268V)		+/- 123.7067 µg/mL		Unstressed
	Purity 99%			+/- 126.7828 µg/mL		Stressed
4	Ethyl-tert-butyl ether (ETBE)		2,505.0 µg/mL	+/- 14.5643 µg/mL		Gravimetric
	CAS # 637-92-3	(Lot MKBR1623V)		+/- 123.9170 µg/mL		Unstressed
	Purity 99%			+/- 126.9983 µg/mL		Stressed
5	Propionitrile		25,001.5 µg/mL	+/- 145.3533 µg/mL		Gravimetric
	CAS # 107-12-0	(Lot BCBM6569V)		+/- 1,236.7695 µg/mL		Unstressed
	Purity 99%			+/- 1,267.5229 µg/mL		Stressed
6	tert-Amyl alcohol		25,012.3 µg/mL	+/- 145.4158 µg/mL		Gravimetric
	CAS # 75-85-4	(Lot STBB1898V)		+/- 1,237.3013 µg/mL		Unstressed
	Purity 99%			+/- 1,268.0679 µg/mL		Stressed
7	tert-Amyl methyl ether (TAME)		2,503.5 µg/mL	+/- 14.5556 µg/mL		Gravimetric
	CAS # 994-05-8	(Lot HMBC8037V)		+/- 123.8428 µg/mL		Unstressed
	Purity 99%			+/- 126.9222 µg/mL		Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

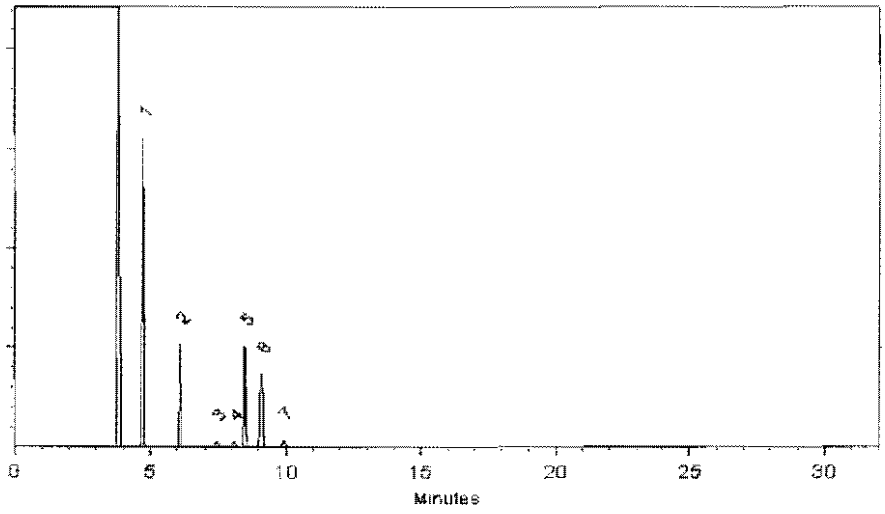
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 3 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 12-Oct-2015 **Balance:** B251644995

Jennifer L. Pollino - QC Analyst **Date Passed:** 14-Oct-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Method 8260C Low Level

Volatile Organic Compounds (GC/MS) by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VMS40 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-112216	160-20140-1	107	101	100	94
SW-WS06-112216	160-20140-2	106	101	100	94
SW-WS12-112216	160-20140-3	99	97	99	91
SW-WS11-112216	160-20140-4	106	102	101	94
	MB 160-281852/6	105	101	102	95
	LCS 160-281852/3	107	101	102	96
	LCSD 160-281852/4	111	105	102	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	81-124
DCA = 1,2-Dichloroethane-d4 (Surr)	75-129
TOL = Toluene-d8 (Surr)	87-128
BFB = 4-Bromofluorobenzene (Surr)	81-130

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LLCS6985.D

Lab ID: LCS 160-281852/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.87	99	85-116	
1,1,2,2-Tetrachloroethane	10.0	9.49	95	80-120	
1,1,2-Trichloroethane	10.0	9.79	98	80-120	
1,1-Dichloroethene	10.0	9.71	97	80-120	
1,1-Dichloroethane	10.0	9.95	99	80-120	
1,2,4-Trichlorobenzene	10.0	10.2	102	75-121	
1,2-Dibromo-3-Chloropropane	10.0	10.2	102	73-123	
1,2-Dichloroethane	10.0	9.79	98	80-115	
1,2-Dichloroethene, Total	20.0	19.6	98	80-120	
1,2-Dichloropropane	10.0	9.81	98	80-120	
2-Butanone	10.0	10.6	106	67-127	
2-Hexanone	10.0	10.4	104	70-123	
4-Methyl-2-pentanone	10.0	9.54	95	75-126	
Acetone	10.0	10.7	107	69-129	
Benzene	10.0	9.67	97	80-120	
Bromoform	10.0	10.1	101	80-120	
Methyl bromide	10.0	9.06	91	70-124	
Carbon disulfide	10.0	9.76	98	80-121	
Carbon tetrachloride	10.0	9.88	99	83-125	
Chlorobenzene	10.0	9.89	99	80-120	
Chlorodibromomethane	10.0	10.3	103	80-120	
Chloroethane	10.0	9.58	96	73-119	
Chloroform	10.0	9.88	99	80-120	
Chloromethane	10.0	9.65	97	72-124	
cis-1,2-Dichloroethene	10.0	9.79	98	80-120	
cis-1,3-Dichloropropene	10.0	9.90	99	80-120	
Bromodichloromethane	10.0	9.86	99	80-120	
Ethylbenzene	10.0	9.85	99	80-120	
1,2-Dibromoethane	10.0	10.0	100	80-120	
Methylene Chloride	10.0	9.73	97	80-120	
n-Butanol	250	238	95	62-128	
Styrene	10.0	10.0	100	81-133	
Tetrachloroethene	10.0	10.2	102	83-123	
Toluene	10.0	9.79	98	80-120	
trans-1,2-Dichloroethene	10.0	9.80	98	80-120	
trans-1,3-Dichloropropene	10.0	10.0	100	82-124	
Trichloroethene	10.0	9.92	99	80-120	
Vinyl acetate	10.0	9.30	93	63-140	
Vinyl chloride	10.0	9.63	96	77-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LLCS6986.D

Lab ID: LCSD 160-281852/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.74	97	1	20	85-116	
1,1,2,2-Tetrachloroethane	10.0	9.75	97	3	20	80-120	
1,1,2-Trichloroethane	10.0	10.0	100	2	20	80-120	
1,1-Dichloroethene	10.0	9.56	96	2	20	80-120	
1,1-Dichloroethane	10.0	9.81	98	1	20	80-120	
1,2,4-Trichlorobenzene	10.0	9.80	98	4	20	75-121	
1,2-Dibromo-3-Chloropropane	10.0	10.5	105	3	20	73-123	
1,2-Dichloroethane	10.0	10.0	100	2	20	80-115	
1,2-Dichloroethene, Total	20.0	19.5	97	1	20	80-120	
1,2-Dichloropropane	10.0	9.82	98	0	20	80-120	
2-Butanone	10.0	11.4	114	7	20	67-127	
2-Hexanone	10.0	11.2	112	8	20	70-123	
4-Methyl-2-pentanone	10.0	10.4	104	8	20	75-126	
Acetone	10.0	11.7	117	8	20	69-129	
Benzene	10.0	9.56	96	1	20	80-120	
Bromoform	10.0	10.2	102	1	20	80-120	
Methyl bromide	10.0	8.91	89	2	20	70-124	
Carbon disulfide	10.0	9.57	96	2	20	80-121	
Carbon tetrachloride	10.0	9.76	98	1	20	83-125	
Chlorobenzene	10.0	9.82	98	1	20	80-120	
Chlorodibromomethane	10.0	10.4	104	1	20	80-120	
Chloroethane	10.0	9.27	93	3	20	73-119	
Chloroform	10.0	9.78	98	1	20	80-120	
Chloromethane	10.0	9.52	95	1	20	72-124	
cis-1,2-Dichloroethene	10.0	9.80	98	0	20	80-120	
cis-1,3-Dichloropropene	10.0	10.0	100	1	20	80-120	
Bromodichloromethane	10.0	10.0	100	1	20	80-120	
Ethylbenzene	10.0	9.65	97	2	20	80-120	
1,2-Dibromoethane	10.0	10.1	101	1	20	80-120	
Methylene Chloride	10.0	9.82	98	1	20	80-120	
n-Butanol	250	268	107	12	20	62-128	
Styrene	10.0	10.0	100	0	20	81-133	
Tetrachloroethene	10.0	9.86	99	4	20	83-123	
Toluene	10.0	9.55	95	3	20	80-120	
trans-1,2-Dichloroethene	10.0	9.67	97	1	20	80-120	
trans-1,3-Dichloropropene	10.0	10.2	102	2	20	82-124	
Trichloroethene	10.0	9.90	99	0	20	80-120	
Vinyl acetate	10.0	9.39	94	1	20	63-140	
Vinyl chloride	10.0	9.41	94	2	20	77-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab File ID: LBLK6988.D Lab Sample ID: MB 160-281852/6

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: VMSL Date Analyzed: 12/01/2016 11:03

GC Column: RTX-VMS40 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 160-281852/3	LLCS6985.D	12/01/2016 09:48
	LCSD 160-281852/4	LLCS6986.D	12/01/2016 10:13
TB-112216	160-20140-1	LSMP6998.D	12/01/2016 15:14
SW-WS06-112216	160-20140-2	LSMP6999.D	12/01/2016 15:39
SW-WS12-112216	160-20140-3	LSMP7000.D	12/01/2016 16:04
SW-WS11-112216	160-20140-4	LSMP7001.D	12/01/2016 16:29

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab File ID: LBFB6939.D BFB Injection Date: 11/29/2016

Instrument ID: VMSL BFB Injection Time: 13:25

Analysis Batch No.: 281296

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	47.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	78.1	
175	5.0 - 9.0 % of mass 174	5.8	(7.5) 1
176	95.0 - 101.0 % of mass 174	75.4	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 160-281296/8	LICL6941.D	11/29/2016	14:17
	IC 160-281296/9	LICL6942.D	11/29/2016	14:43
	IC 160-281296/10	LICL6943.D	11/29/2016	15:08
	IC 160-281296/11	LICL6944.D	11/29/2016	15:33
	ICIS 160-281296/12	LICL6945.D	11/29/2016	15:58
	IC 160-281296/13	LICL6946.D	11/29/2016	16:23
	IC 160-281296/14	LICL6947.D	11/29/2016	16:48
	ICV 160-281296/16	LICV6949.D	11/29/2016	17:38

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab File ID: LBFB6983.D BFB Injection Date: 12/01/2016

Instrument ID: VMSL BFB Injection Time: 08:59

Analysis Batch No.: 281852

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	78.7	
175	5.0 - 9.0 % of mass 174	5.9	(7.5) 1
176	95.0 - 101.0 % of mass 174	76.6	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 160-281852/2	LCCV6984.D	12/01/2016	09:23
	LCS 160-281852/3	LLCS6985.D	12/01/2016	09:48
	LCSD 160-281852/4	LLCS6986.D	12/01/2016	10:13
	MB 160-281852/6	LBLK6988.D	12/01/2016	11:03
TB-112216	160-20140-1	LSMP6998.D	12/01/2016	15:14
SW-WS06-112216	160-20140-2	LSMP6999.D	12/01/2016	15:39
SW-WS12-112216	160-20140-3	LSMP7000.D	12/01/2016	16:04
SW-WS11-112216	160-20140-4	LSMP7001.D	12/01/2016	16:29

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Sample No.: ICIS 160-281296/12 Date Analyzed: 11/29/2016 15:58

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm)

Lab File ID (Standard): LICL6945.D Heated Purge: (Y/N) Y

Calibration ID: 11912

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1671234	8.92	1075804	11.75	495530	13.93
UPPER LIMIT		3342468	9.42	2151608	12.25	991060	14.43
LOWER LIMIT		835617	8.42	537902	11.25	247765	13.43
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 160-281296/16		1688826	8.92	1100195	11.75	507792	13.93

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Sample No.: CCVIS 160-281852/2 Date Analyzed: 12/01/2016 09:23

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm)

Lab File ID (Standard): LCCV6984.D Heated Purge: (Y/N) Y

Calibration ID: 11912

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1647952	8.92	1075702	11.75	514718	13.93
UPPER LIMIT		3295904	9.42	2151404	12.25	1029436	14.43
LOWER LIMIT		823976	8.42	537851	11.25	257359	13.43
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 160-281852/3		1600686	8.92	1033515	11.75	488288	13.93
LCSD 160-281852/4		1631965	8.92	1073112	11.75	514978	13.93
MB 160-281852/6		1554483	8.92	1001968	11.75	469740	13.93
160-20140-1	TB-112216	1556996	8.92	1033121	11.75	490731	13.93
160-20140-2	SW-WS06-112216	1532833	8.92	1008049	11.75	474207	13.93
160-20140-3	SW-WS12-112216	1553956	8.92	1028374	11.75	488381	13.93
160-20140-4	SW-WS11-112216	1543046	8.92	1024640	11.75	467689	13.93

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: TB-112216 | Lab Sample ID: 160-20140-1

Matrix: Water | Lab File ID: LSMP6998.D

Analysis Method: 8260C | Date Collected: 11/22/2016 07:00

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 15:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.10
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.13
75-35-4	1,1-Dichloroethene	ND		1.0	0.10
75-34-3	1,1-Dichloroethane	ND		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.41
107-06-2	1,2-Dichloroethane	ND		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	ND		2.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.10
78-93-3	2-Butanone	ND		5.0	0.47
591-78-6	2-Hexanone	ND		5.0	0.25
108-10-1	4-Methyl-2-pentanone	ND		5.0	0.22
67-64-1	Acetone	ND		2.0	0.55
71-43-2	Benzene	ND		1.0	0.10
75-25-2	Bromoform	ND		1.0	0.17
74-83-9	Methyl bromide	ND		2.0	0.25
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.11
124-48-1	Chlorodibromomethane	ND		1.0	0.14
75-00-3	Chloroethane	ND		2.0	0.16
67-66-3	Chloroform	ND		1.0	0.10
74-87-3	Chloromethane	ND		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.16
75-27-4	Bromodichloromethane	ND		1.0	0.14
100-41-4	Ethylbenzene	ND		1.0	0.12
106-93-4	1,2-Dibromoethane	ND		1.0	0.13
75-09-2	Methylene Chloride	ND		1.0	0.27
71-36-3	n-Butanol	ND		50	12
100-42-5	Styrene	ND		1.0	0.13
127-18-4	Tetrachloroethene	ND		1.0	0.18
108-88-3	Toluene	ND		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: TB-112216 | Lab Sample ID: 160-20140-1

Matrix: Water | Lab File ID: LSMP6998.D

Analysis Method: 8260C | Date Collected: 11/22/2016 07:00

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 15:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		1.0	0.25
108-05-4	Vinyl acetate	ND		2.0	0.18
75-01-4	Vinyl chloride	ND		2.0	0.19
1330-20-7	Xylenes, Total	ND		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		75-129
460-00-4	4-Bromofluorobenzene (Surr)	94		81-130
1868-53-7	Dibromofluoromethane (Surr)	107		81-124
2037-26-5	Toluene-d8 (Surr)	100		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6998.D
Lims ID: 160-20140-A-1
Client ID: TB-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 15:14:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-016
Misc. Info.: 160-20140-a-1
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:37:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
3 Chloromethane	50		3.360				ND	
4 Vinyl chloride	62		3.514				ND	
6 Bromomethane	94		4.100				ND	
7 Chloroethane	64		4.324				ND	
12 1,1-Dichloroethene	96		5.371				ND	
13 Carbon disulfide	76		5.427				ND	
S 15 1,2-Dichloroethene, Total	96		5.816				ND	
20 Methylene Chloride	84		6.181				ND	
21 Acetone	43		6.251				ND	
22 trans-1,2-Dichloroethene	96		6.377				ND	
30 1,1-Dichloroethane	63		7.103				ND	
33 Vinyl acetate	43		7.354				ND	
34 cis-1,2-Dichloroethene	96		7.675				ND	
38 Chloroform	83		7.941				ND	
40 Carbon tetrachloride	117		8.094				ND	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	288178		10.7
43 1,1,1-Trichloroethane	97		8.164				ND	
45 2-Butanone (MEK)	43		8.248				ND	
48 Benzene	78		8.527				ND	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.653	0.014	91	272540		10.1
54 1,2-Dichloroethane	62		8.723				ND	
* 55 Fluorobenzene	96	8.918	8.918	0.000	99	1556996		10.0
57 Trichloroethene	95		9.072				ND	
59 n-Butanol	56		9.310				ND	
62 1,2-Dichloropropane	63		9.561				ND	
63 Dichlorobromomethane	83		9.603				ND	
67 cis-1,3-Dichloropropene	75		10.161				ND	
$ 68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1465892		10.0
69 Toluene	92		10.385				ND	
71 4-Methyl-2-pentanone (MIBK	43		10.692				ND	
72 trans-1,3-Dichloropropene	75		10.748				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
73 Tetrachloroethene	164		10.748				ND	
75 1,1,2-Trichloroethane	83		10.902				ND	
76 Chlorodibromomethane	129		11.083				ND	
79 Ethylene Dibromide	107		11.321				ND	
80 2-Hexanone	43		11.432				ND	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	88	1033121	10.0	
82 Ethylbenzene	91		11.754				ND	
84 Chlorobenzene	112		11.768				ND	
86 m-Xylene & p-Xylene	106		11.879				ND	
88 o-Xylene	106		12.284				ND	
89 Styrene	104		12.340				ND	
90 Bromoform	173		12.410				ND	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	90	465982	9.37	
95 1,1,2,2-Tetrachloroethane	83		13.011				ND	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	94	490731	10.0	
115 1,2-Dibromo-3-Chloropropan	157		15.147				ND	
117 1,2,4-Trichlorobenzene	180		15.818				ND	
S 119 Xylenes, Total	106		16.500				ND	

Reagents:

I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

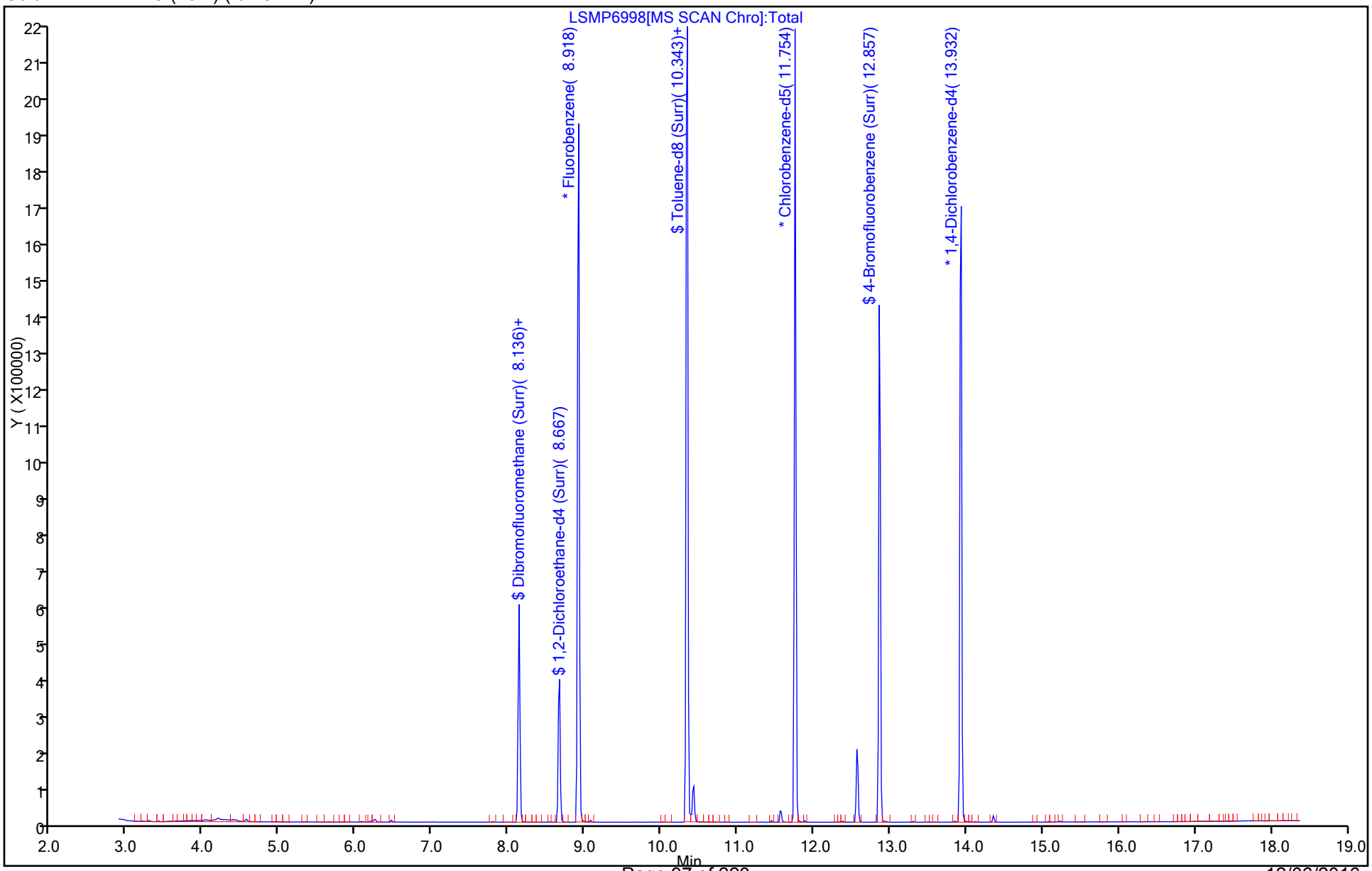
Report Date: 02-Dec-2016 09:43:31 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6998.D

Injection Date:	01-Dec-2016 15:14:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	160-20140-A-1	Lab Sample ID:	160-20140-1	Worklist Smp#:	16
Client ID:	TB-112216				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6998.D
Lims ID: 160-20140-A-1
Client ID: TB-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 15:14:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-016
Misc. Info.: 160-20140-a-1
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:37:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	10.7	106.64
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.41
$ 68 Toluene-d8 (Surr)	10.0	10.0	99.93
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.37	93.66

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: SW-WS06-112216 | Lab Sample ID: 160-20140-2

Matrix: Water | Lab File ID: LSMP6999.D

Analysis Method: 8260C | Date Collected: 11/22/2016 08:05

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 15:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.10
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.13
75-35-4	1,1-Dichloroethene	ND		1.0	0.10
75-34-3	1,1-Dichloroethane	ND		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.41
107-06-2	1,2-Dichloroethane	ND		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	ND		2.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.10
78-93-3	2-Butanone	ND		5.0	0.47
591-78-6	2-Hexanone	ND		5.0	0.25
108-10-1	4-Methyl-2-pentanone	ND		5.0	0.22
67-64-1	Acetone	0.96	J	2.0	0.55
71-43-2	Benzene	ND		1.0	0.10
75-25-2	Bromoform	ND		1.0	0.17
74-83-9	Methyl bromide	ND		2.0	0.25
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.11
124-48-1	Chlorodibromomethane	ND		1.0	0.14
75-00-3	Chloroethane	ND		2.0	0.16
67-66-3	Chloroform	ND		1.0	0.10
74-87-3	Chloromethane	ND		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.16
75-27-4	Bromodichloromethane	ND		1.0	0.14
100-41-4	Ethylbenzene	ND		1.0	0.12
106-93-4	1,2-Dibromoethane	ND		1.0	0.13
75-09-2	Methylene Chloride	ND		1.0	0.27
71-36-3	n-Butanol	ND		50	12
100-42-5	Styrene	ND		1.0	0.13
127-18-4	Tetrachloroethene	ND		1.0	0.18
108-88-3	Toluene	ND		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: SW-WS06-112216 | Lab Sample ID: 160-20140-2

Matrix: Water | Lab File ID: LSMP6999.D

Analysis Method: 8260C | Date Collected: 11/22/2016 08:05

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 15:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		1.0	0.25
108-05-4	Vinyl acetate	ND		2.0	0.18
75-01-4	Vinyl chloride	ND		2.0	0.19
1330-20-7	Xylenes, Total	ND		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		75-129
460-00-4	4-Bromofluorobenzene (Surr)	94		81-130
1868-53-7	Dibromofluoromethane (Surr)	106		81-124
2037-26-5	Toluene-d8 (Surr)	100		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6999.D
Lims ID: 160-20140-A-2
Client ID: SW-WS06-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 15:39:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-017
Misc. Info.: 160-20140-a-2
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:38:04

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	3 Chloromethane	50		3.360				ND	
	4 Vinyl chloride	62		3.514				ND	
	6 Bromomethane	94		4.100				ND	
	7 Chloroethane	64		4.324				ND	
	12 1,1-Dichloroethene	96		5.371				ND	
	13 Carbon disulfide	76		5.427				ND	
S	15 1,2-Dichloroethene, Total	96		5.816				ND	
	20 Methylene Chloride	84		6.181				ND	
	21 Acetone	43	6.251	6.251	0.000	99	8060	0.9644	
	22 trans-1,2-Dichloroethene	96		6.377				ND	
	30 1,1-Dichloroethane	63		7.103				ND	
	33 Vinyl acetate	43		7.354				ND	
	34 cis-1,2-Dichloroethene	96		7.675				ND	
	38 Chloroform	83		7.941				ND	
	40 Carbon tetrachloride	117		8.094				ND	
$	42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	93	280831	10.6	
	43 1,1,1-Trichloroethane	97		8.164				ND	
	45 2-Butanone (MEK)	43		8.248				ND	
	48 Benzene	78		8.527				ND	
$	53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.653	0.014	91	267003	10.1	
	54 1,2-Dichloroethane	62		8.723				ND	
*	55 Fluorobenzene	96	8.919	8.918	0.001	99	1532833	10.0	
	57 Trichloroethene	95		9.072				ND	
	59 n-Butanol	56		9.310				ND	
	62 1,2-Dichloropropane	63		9.561				ND	
	63 Dichlorobromomethane	83		9.603				ND	
	67 cis-1,3-Dichloropropene	75		10.161				ND	
$	68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1433272	10.0	
	69 Toluene	92		10.385				ND	
	71 4-Methyl-2-pentanone (MIBK	43		10.692				ND	
	72 trans-1,3-Dichloropropene	75		10.748				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
73 Tetrachloroethene	164		10.748				ND	
75 1,1,2-Trichloroethane	83		10.902				ND	
76 Chlorodibromomethane	129		11.083				ND	
79 Ethylene Dibromide	107		11.321				ND	
80 2-Hexanone	43		11.432				ND	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	88	1008049	10.0	
82 Ethylbenzene	91		11.754				ND	
84 Chlorobenzene	112		11.768				ND	
86 m-Xylene & p-Xylene	106		11.879				ND	
88 o-Xylene	106		12.284				ND	
89 Styrene	104		12.340				ND	
90 Bromoform	173		12.410				ND	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	92	451395	9.39	
95 1,1,2,2-Tetrachloroethane	83		13.011				ND	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	94	474207	10.0	
115 1,2-Dibromo-3-Chloropropan	157		15.147				ND	
117 1,2,4-Trichlorobenzene	180		15.818				ND	
S 119 Xylenes, Total	106		16.500				ND	

Reagents:

I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

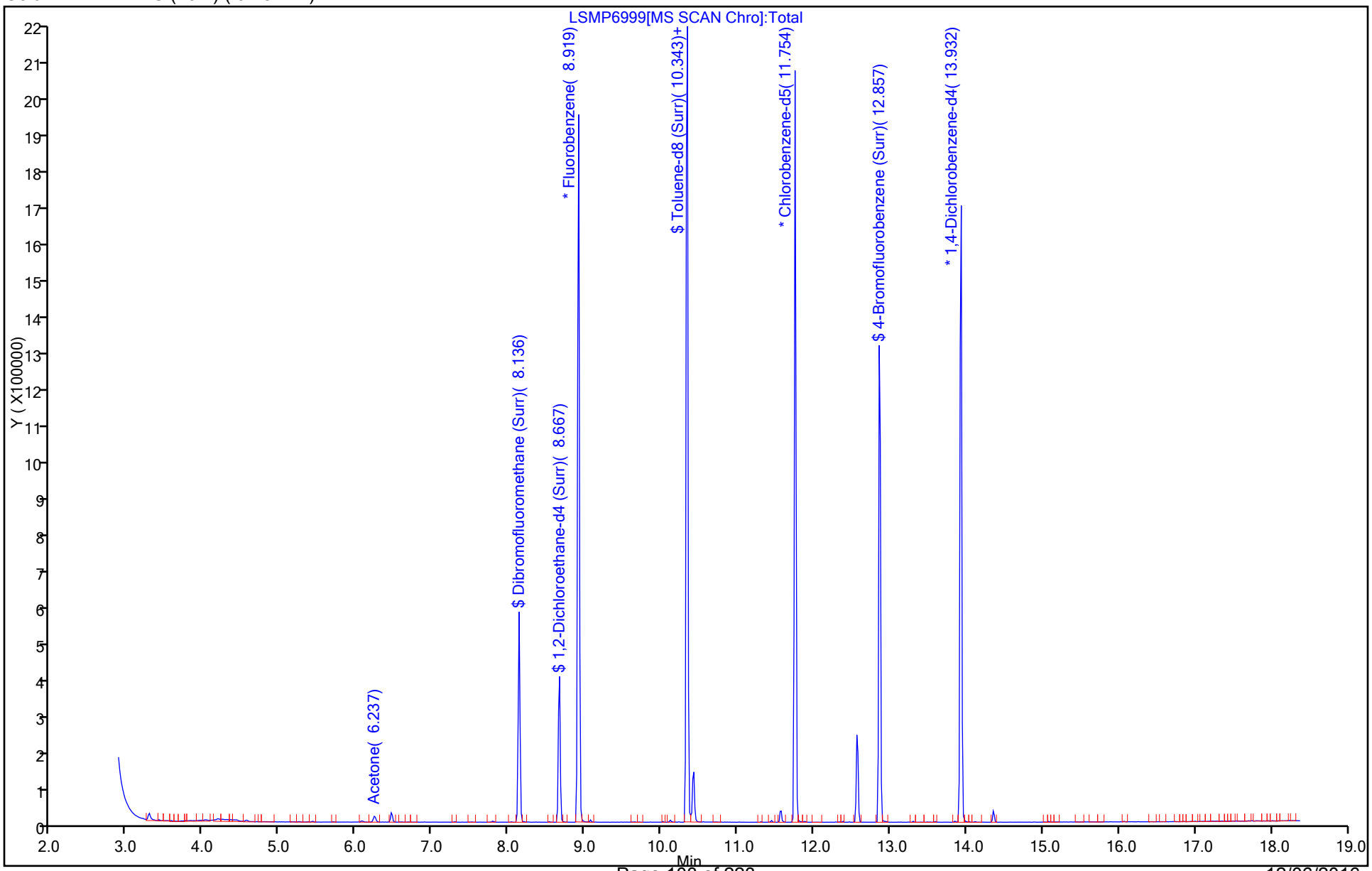
Report Date: 02-Dec-2016 09:43:32 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6999.D

Injection Date:	01-Dec-2016 15:39:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	160-20140-A-2	Lab Sample ID:	160-20140-2	Worklist Smp#:	17
Client ID:	SW-WS06-112216				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6999.D
Lims ID: 160-20140-A-2
Client ID: SW-WS06-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 15:39:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-017
Misc. Info.: 160-20140-a-2
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:38:04

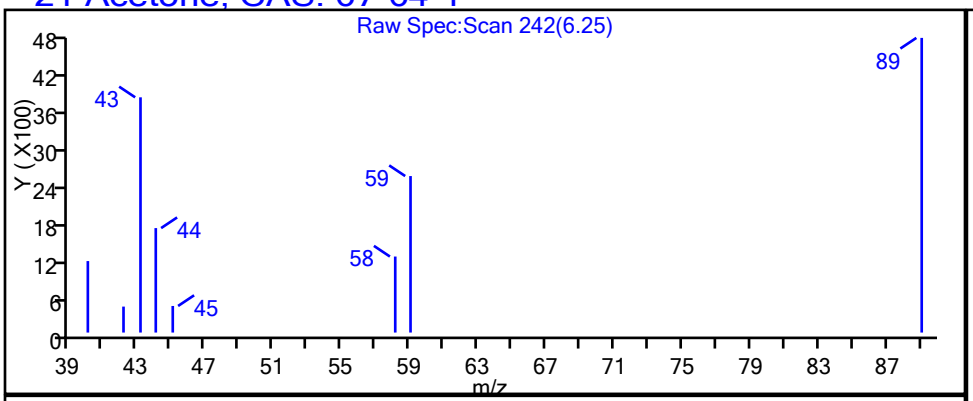
Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	10.6	105.56
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.91
$ 68 Toluene-d8 (Surr)	10.0	10.0	100.14
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.39	93.89

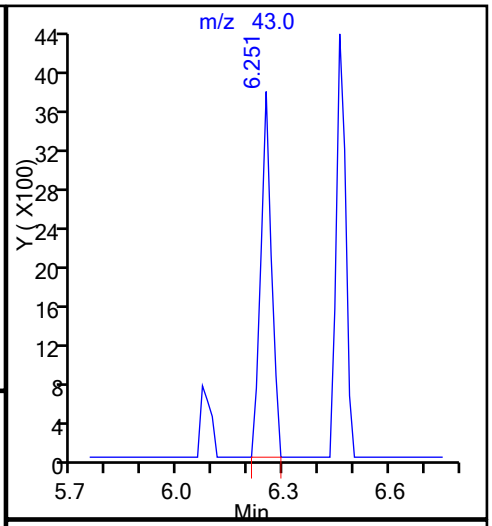
Report Date: 02-Dec-2016 09:43:32 Chrom Revision: 2.2 14-Nov-2016 08:15:18

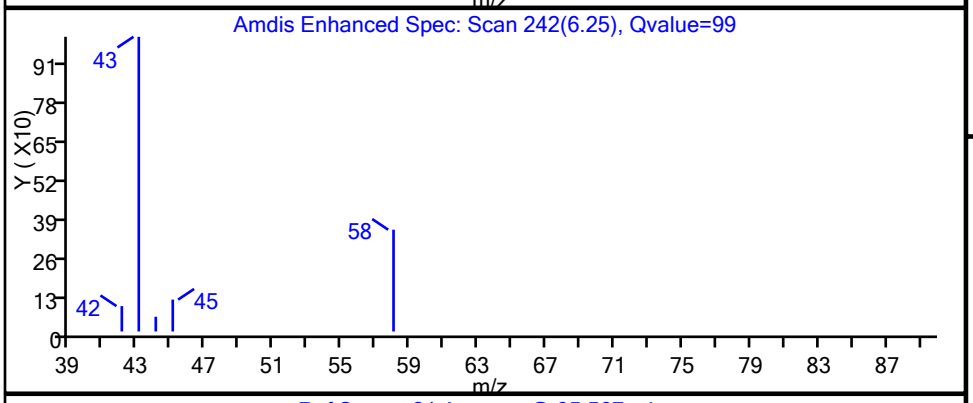
TestAmerica St. Louis

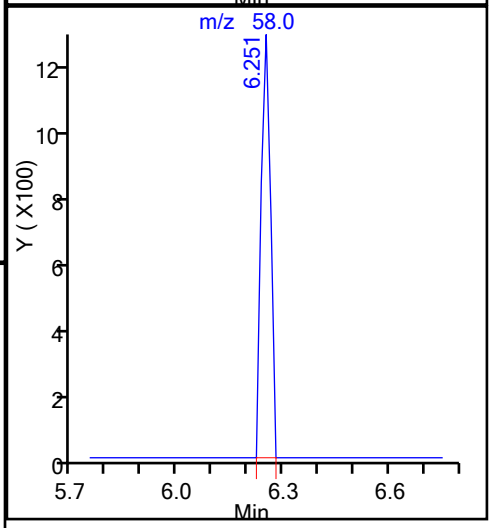
Data File:	\\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP6999.D				
Injection Date:	01-Dec-2016 15:39:30	Instrument ID:	VMSL		
Lims ID:	160-20140-A-2	Lab Sample ID:	160-20140-2		
Client ID:	SW-WS06-112216				
Operator ID:	SMCR	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

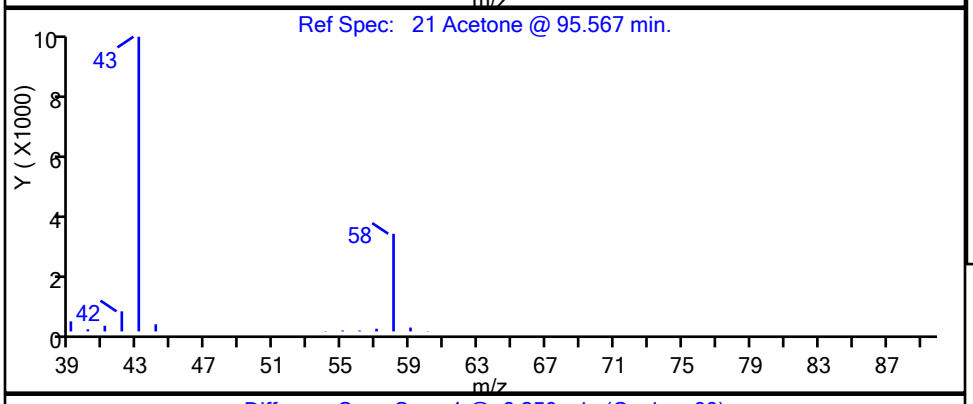
21 Acetone, CAS: 67-64-1

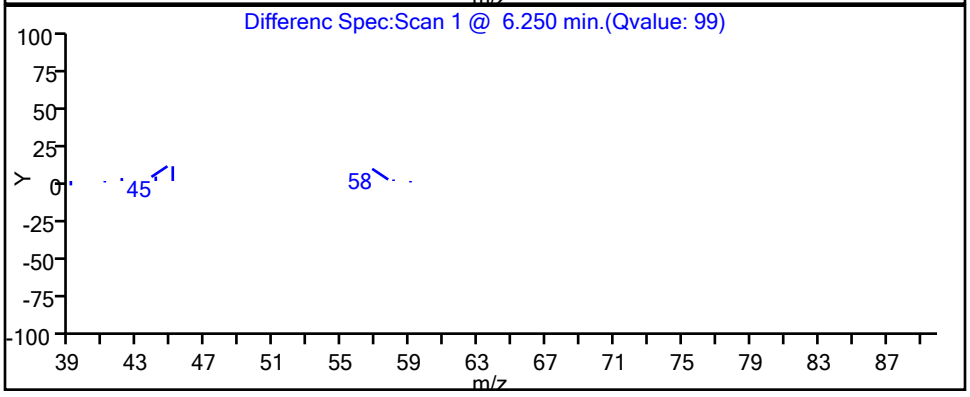












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: SW-WS12-112216 | Lab Sample ID: 160-20140-3

Matrix: Water | Lab File ID: LSMP7000.D

Analysis Method: 8260C | Date Collected: 11/22/2016 08:35

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 16:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.10
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.13
75-35-4	1,1-Dichloroethene	ND		1.0	0.10
75-34-3	1,1-Dichloroethane	ND		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.41
107-06-2	1,2-Dichloroethane	ND		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	0.57	J	2.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.10
78-93-3	2-Butanone	ND		5.0	0.47
591-78-6	2-Hexanone	ND		5.0	0.25
108-10-1	4-Methyl-2-pentanone	ND		5.0	0.22
67-64-1	Acetone	ND		2.0	0.55
71-43-2	Benzene	ND		1.0	0.10
75-25-2	Bromoform	ND		1.0	0.17
74-83-9	Methyl bromide	ND		2.0	0.25
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.11
124-48-1	Chlorodibromomethane	ND		1.0	0.14
75-00-3	Chloroethane	ND		2.0	0.16
67-66-3	Chloroform	ND		1.0	0.10
74-87-3	Chloromethane	ND		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	0.57	J	1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.16
75-27-4	Bromodichloromethane	ND		1.0	0.14
100-41-4	Ethylbenzene	ND		1.0	0.12
106-93-4	1,2-Dibromoethane	ND		1.0	0.13
75-09-2	Methylene Chloride	ND		1.0	0.27
71-36-3	n-Butanol	ND		50	12
100-42-5	Styrene	ND		1.0	0.13
127-18-4	Tetrachloroethene	ND		1.0	0.18
108-88-3	Toluene	ND		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: SW-WS12-112216 | Lab Sample ID: 160-20140-3

Matrix: Water | Lab File ID: LSMP7000.D

Analysis Method: 8260C | Date Collected: 11/22/2016 08:35

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 16:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		1.0	0.25
108-05-4	Vinyl acetate	ND		2.0	0.18
75-01-4	Vinyl chloride	ND		2.0	0.19
1330-20-7	Xylenes, Total	ND		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		75-129
460-00-4	4-Bromofluorobenzene (Surr)	91		81-130
1868-53-7	Dibromofluoromethane (Surr)	99		81-124
2037-26-5	Toluene-d8 (Surr)	99		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7000.D
Lims ID: 160-20140-A-3
Client ID: SW-WS12-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 16:04:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-018
Misc. Info.: 160-20140-a-3
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:38:29

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	3 Chloromethane	50		3.360				ND	
	4 Vinyl chloride	62		3.514				ND	
	6 Bromomethane	94		4.100				ND	
	7 Chloroethane	64		4.324				ND	
	12 1,1-Dichloroethene	96		5.371				ND	
	13 Carbon disulfide	76		5.427				ND	
S	15 1,2-Dichloroethene, Total	96				0		0.5725	
	20 Methylene Chloride	84		6.181				ND	
	21 Acetone	43		6.251				ND	
	22 trans-1,2-Dichloroethene	96		6.377				ND	
	30 1,1-Dichloroethane	63		7.103				ND	
	33 Vinyl acetate	43		7.354				ND	
	34 cis-1,2-Dichloroethene	96	7.689	7.675	0.014	78	24731	0.5725	
	38 Chloroform	83		7.941				ND	
	40 Carbon tetrachloride	117		8.094				ND	
$	42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	266953	9.90	
	43 1,1,1-Trichloroethane	97		8.164				ND	
	45 2-Butanone (MEK)	43		8.248				ND	
	48 Benzene	78		8.527				ND	
$	53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.653	0.014	91	260169	9.70	
	54 1,2-Dichloroethane	62		8.723				ND	
*	55 Fluorobenzene	96	8.918	8.918	0.000	99	1553956	10.0	
	57 Trichloroethene	95		9.072				ND	
	59 n-Butanol	56		9.310				ND	
	62 1,2-Dichloropropane	63		9.561				ND	
	63 Dichlorobromomethane	83		9.603				ND	
	67 cis-1,3-Dichloropropene	75		10.161				ND	
$	68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1438617	9.85	
	69 Toluene	92		10.385				ND	
	71 4-Methyl-2-pentanone (MIBK	43		10.692				ND	
	72 trans-1,3-Dichloropropene	75		10.748				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
73 Tetrachloroethene	164		10.748				ND	
75 1,1,2-Trichloroethane	83		10.902				ND	
76 Chlorodibromomethane	129		11.083				ND	
79 Ethylene Dibromide	107		11.321				ND	
80 2-Hexanone	43		11.432				ND	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	88	1028374	10.0	
82 Ethylbenzene	91		11.754				ND	
84 Chlorobenzene	112		11.768				ND	
86 m-Xylene & p-Xylene	106		11.879				ND	
88 o-Xylene	106		12.284				ND	
89 Styrene	104		12.340				ND	
90 Bromoform	173		12.410				ND	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	91	450410	9.10	
95 1,1,2,2-Tetrachloroethane	83		13.011				ND	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	94	488381	10.0	
115 1,2-Dibromo-3-Chloropropan	157		15.147				ND	
117 1,2,4-Trichlorobenzene	180		15.818				ND	
S 119 Xylenes, Total	106		16.500				ND	

Reagents:

I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

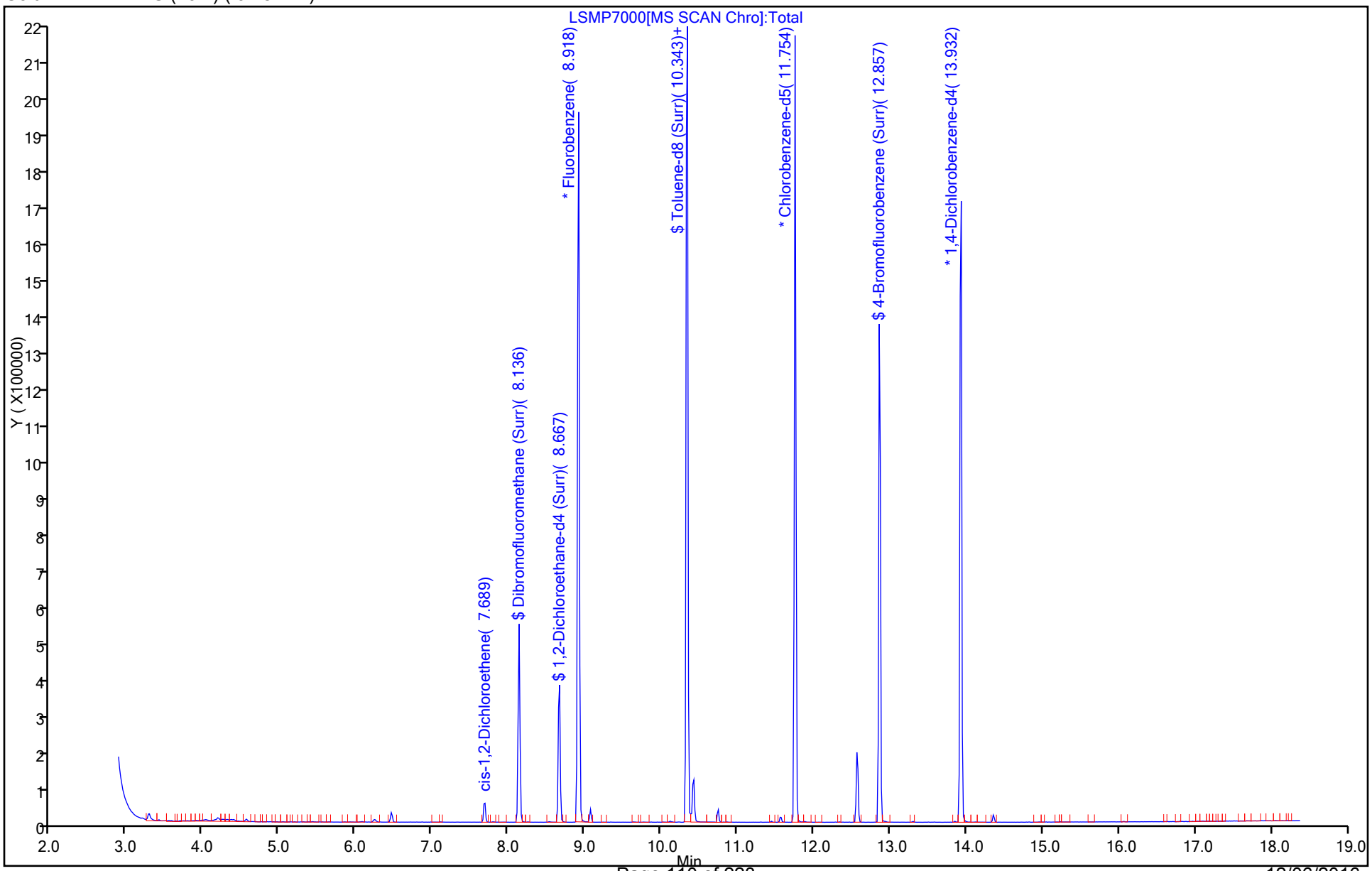
Report Date: 02-Dec-2016 09:43:34 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7000.D

Injection Date:	01-Dec-2016 16:04:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	160-20140-A-3	Lab Sample ID:	160-20140-3	Worklist Smp#:	18
Client ID:	SW-WS12-112216				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7000.D
Lims ID: 160-20140-A-3
Client ID: SW-WS12-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 16:04:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-018
Misc. Info.: 160-20140-a-3
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:38:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	9.90	98.98
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	9.70	96.99
$ 68 Toluene-d8 (Surr)	10.0	9.85	98.53
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.10	90.96

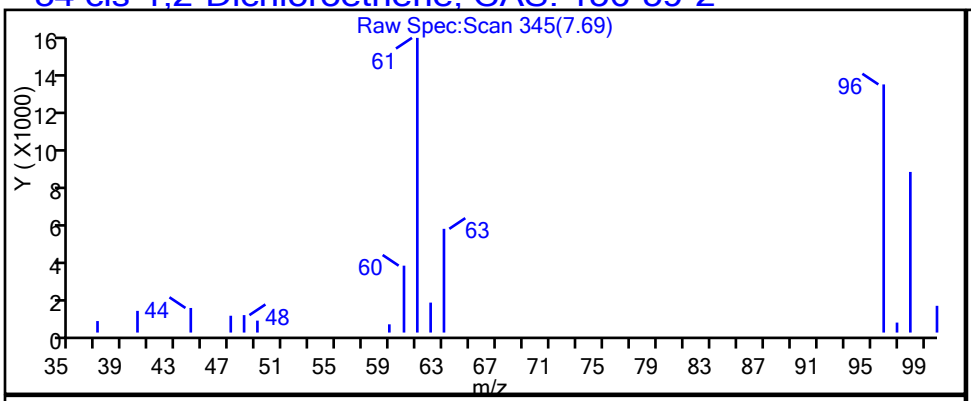
Report Date: 02-Dec-2016 09:43:34 Chrom Revision: 2.2 14-Nov-2016 08:15:18

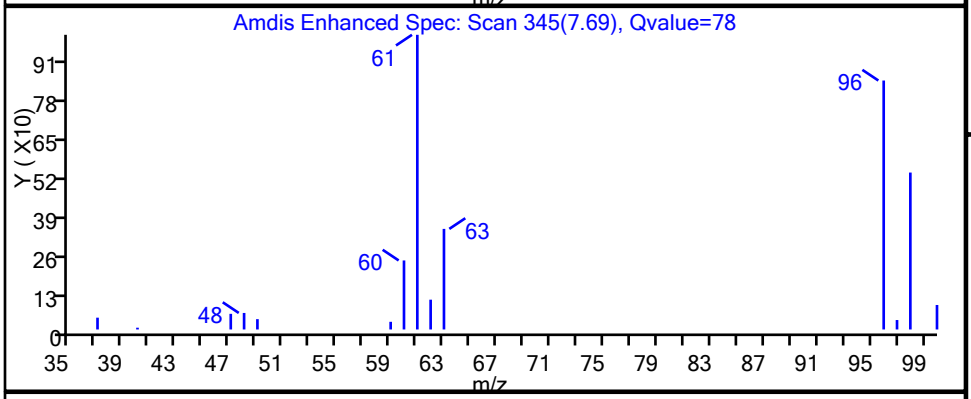
TestAmerica St. Louis

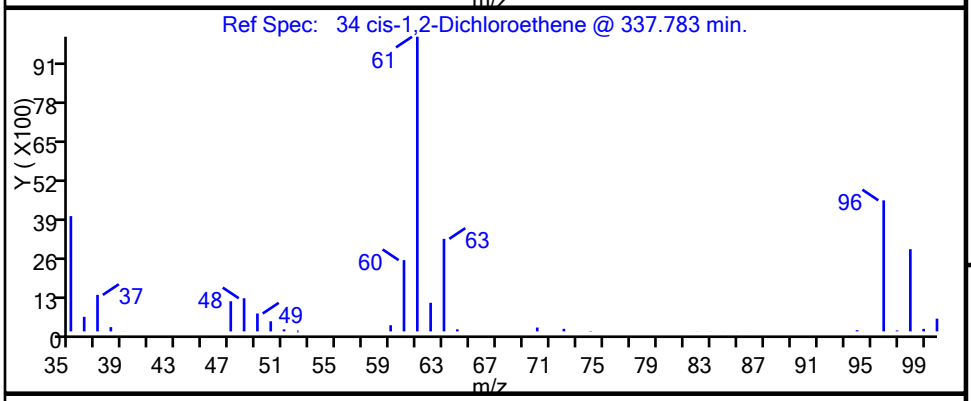
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7000.D

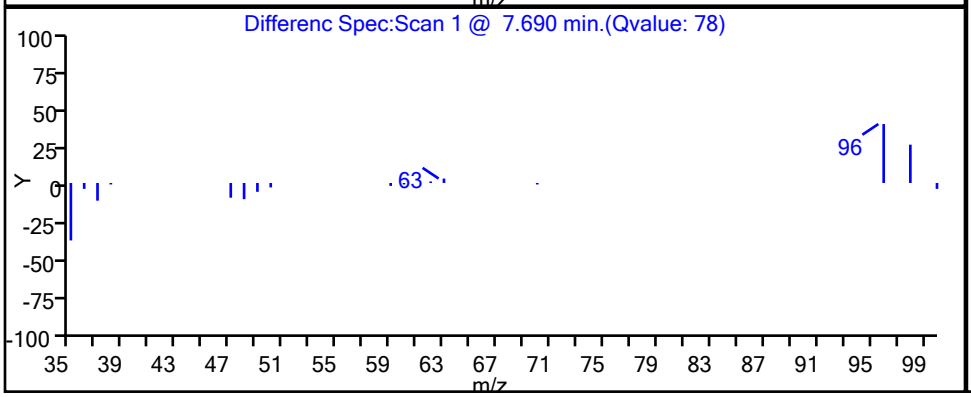
Injection Date:	01-Dec-2016 16:04:30	Instrument ID:	VMSL		
Lims ID:	160-20140-A-3	Lab Sample ID:	160-20140-3		
Client ID:	SW-WS12-112216				
Operator ID:	SMCR	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

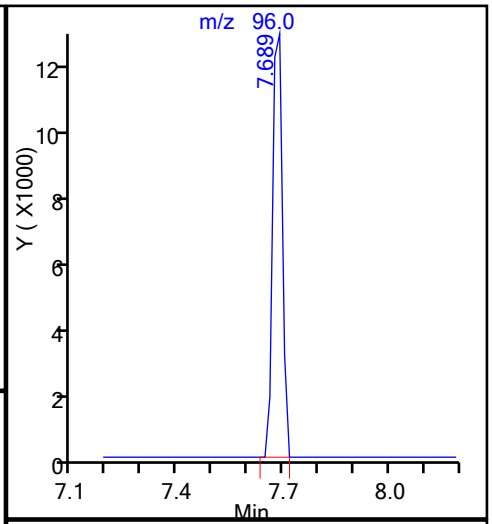
34 cis-1,2-Dichloroethene, CAS: 156-59-2

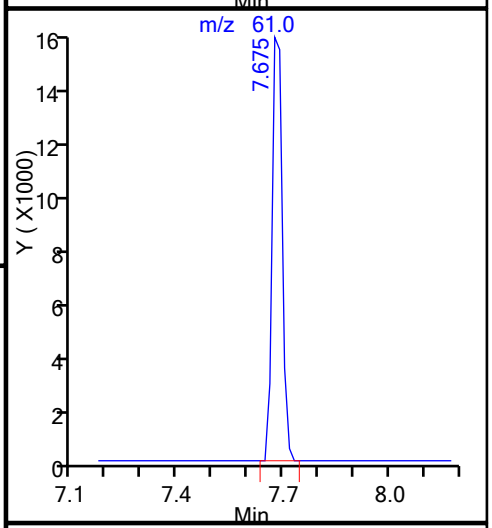


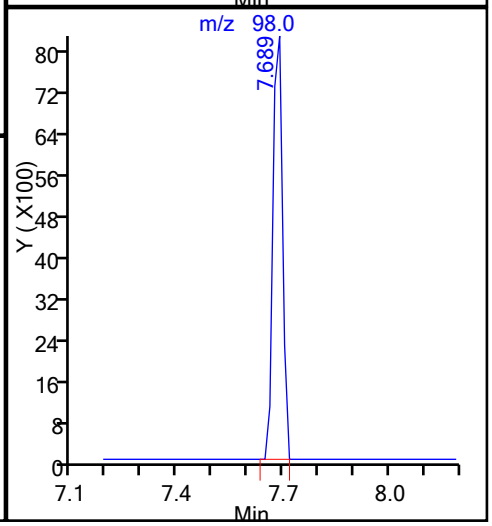












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: SW-WS11-112216 | Lab Sample ID: 160-20140-4

Matrix: Water | Lab File ID: LSMP7001.D

Analysis Method: 8260C | Date Collected: 11/22/2016 09:00

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 16:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.10
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.13
75-35-4	1,1-Dichloroethene	ND		1.0	0.10
75-34-3	1,1-Dichloroethane	ND		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.41
107-06-2	1,2-Dichloroethane	ND		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	ND		2.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.10
78-93-3	2-Butanone	ND		5.0	0.47
591-78-6	2-Hexanone	ND		5.0	0.25
108-10-1	4-Methyl-2-pentanone	ND		5.0	0.22
67-64-1	Acetone	1.9	J	2.0	0.55
71-43-2	Benzene	ND		1.0	0.10
75-25-2	Bromoform	ND		1.0	0.17
74-83-9	Methyl bromide	ND		2.0	0.25
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.11
124-48-1	Chlorodibromomethane	ND		1.0	0.14
75-00-3	Chloroethane	ND		2.0	0.16
67-66-3	Chloroform	ND		1.0	0.10
74-87-3	Chloromethane	ND		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.16
75-27-4	Bromodichloromethane	ND		1.0	0.14
100-41-4	Ethylbenzene	ND		1.0	0.12
106-93-4	1,2-Dibromoethane	ND		1.0	0.13
75-09-2	Methylene Chloride	ND		1.0	0.27
71-36-3	n-Butanol	ND		50	12
100-42-5	Styrene	ND		1.0	0.13
127-18-4	Tetrachloroethene	ND		1.0	0.18
108-88-3	Toluene	ND		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: SW-WS11-112216 | Lab Sample ID: 160-20140-4

Matrix: Water | Lab File ID: LSMP7001.D

Analysis Method: 8260C | Date Collected: 11/22/2016 09:00

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 16:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		1.0	0.25
108-05-4	Vinyl acetate	ND		2.0	0.18
75-01-4	Vinyl chloride	ND		2.0	0.19
1330-20-7	Xylenes, Total	ND		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		75-129
460-00-4	4-Bromofluorobenzene (Surr)	94		81-130
1868-53-7	Dibromofluoromethane (Surr)	106		81-124
2037-26-5	Toluene-d8 (Surr)	101		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7001.D
Lims ID: 160-20140-A-4
Client ID: SW-WS11-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 16:29:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-019
Misc. Info.: 160-20140-a-4
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:38:49

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	3 Chloromethane	50		3.360				ND	
	4 Vinyl chloride	62		3.514				ND	
	6 Bromomethane	94		4.100				ND	
	7 Chloroethane	64		4.324				ND	
	12 1,1-Dichloroethene	96		5.371				ND	
	13 Carbon disulfide	76		5.427				ND	
S	15 1,2-Dichloroethene, Total	96		5.816				ND	
	20 Methylene Chloride	84		6.181				ND	
	21 Acetone	43	6.251	6.251	0.000	98	10886	1.95	
	22 trans-1,2-Dichloroethene	96		6.377				ND	
	30 1,1-Dichloroethane	63		7.103				ND	
	33 Vinyl acetate	43		7.354				ND	
	34 cis-1,2-Dichloroethene	96		7.675				ND	
	38 Chloroform	83		7.941				ND	
	40 Carbon tetrachloride	117		8.094				ND	
$	42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	93	283203	10.6	
	43 1,1,1-Trichloroethane	97		8.164				ND	
	45 2-Butanone (MEK)	43		8.248				ND	
	48 Benzene	78		8.527				ND	
$	53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.653	0.014	91	270871	10.2	
	54 1,2-Dichloroethane	62		8.723				ND	
*	55 Fluorobenzene	96	8.918	8.918	0.000	99	1543046	10.0	
	57 Trichloroethene	95		9.072				ND	
	59 n-Butanol	56		9.310				ND	
	62 1,2-Dichloropropane	63		9.561				ND	
	63 Dichlorobromomethane	83		9.603				ND	
	67 cis-1,3-Dichloropropene	75		10.161				ND	
$	68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1467874	10.1	
	69 Toluene	92		10.385				ND	
	71 4-Methyl-2-pentanone (MIBK	43		10.692				ND	
	72 trans-1,3-Dichloropropene	75		10.748				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
73 Tetrachloroethene	164		10.748				ND	
75 1,1,2-Trichloroethane	83		10.902				ND	
76 Chlorodibromomethane	129		11.083				ND	
79 Ethylene Dibromide	107		11.321				ND	
80 2-Hexanone	43		11.432				ND	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	87	1024640	10.0	
82 Ethylbenzene	91		11.754				ND	
84 Chlorobenzene	112		11.768				ND	
86 m-Xylene & p-Xylene	106		11.879				ND	
88 o-Xylene	106		12.284				ND	
89 Styrene	104		12.340				ND	
90 Bromoform	173		12.410				ND	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	91	447044	9.43	
95 1,1,2,2-Tetrachloroethane	83		13.011				ND	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	95	467689	10.0	
115 1,2-Dibromo-3-Chloropropan	157		15.147				ND	
117 1,2,4-Trichlorobenzene	180		15.818				ND	
S 119 Xylenes, Total	106		16.500				ND	

Reagents:

I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

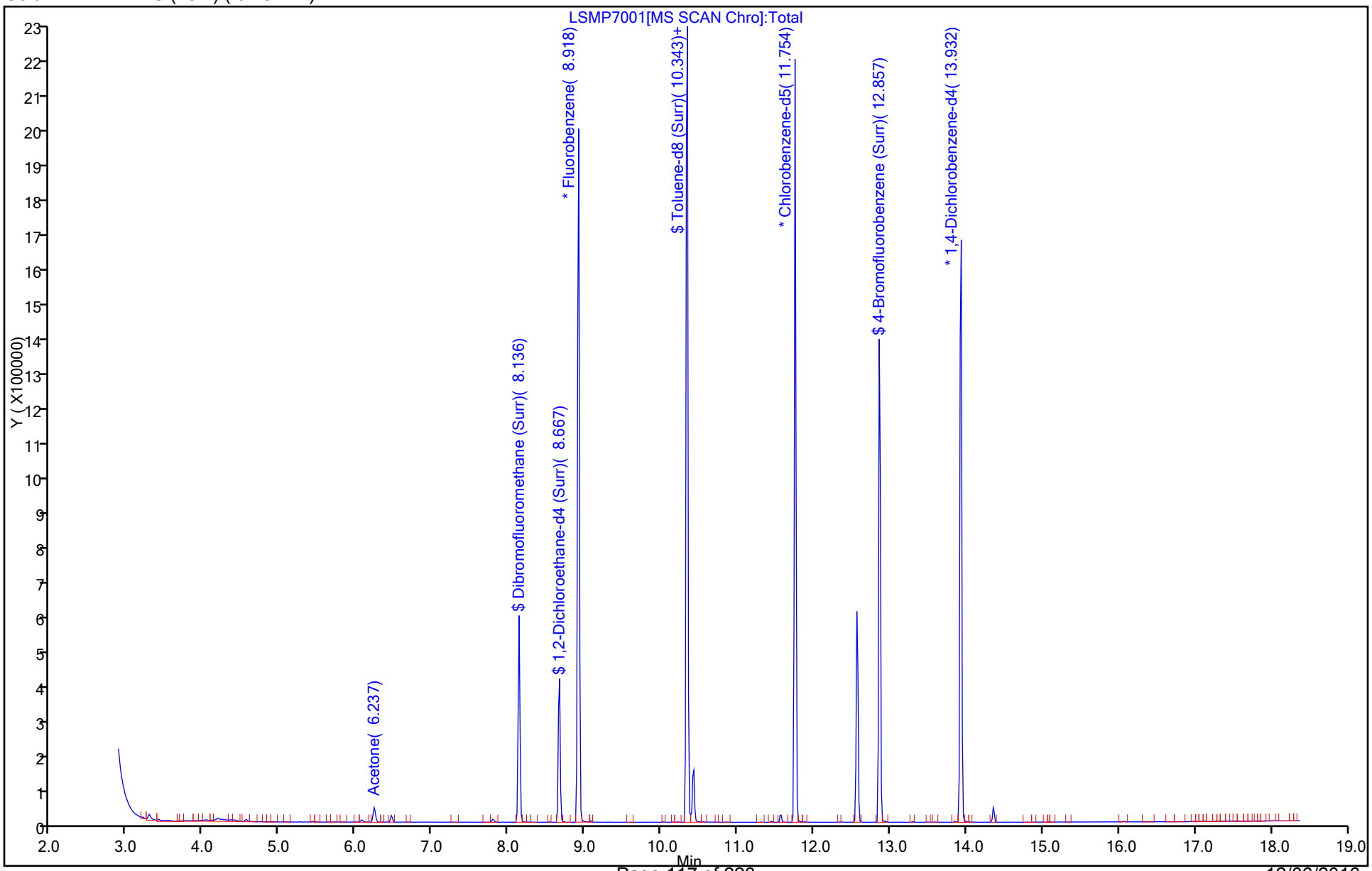
Report Date: 02-Dec-2016 09:43:35 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7001.D

Injection Date:	01-Dec-2016 16:29:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	160-20140-A-4	Lab Sample ID:	160-20140-4	Worklist Smp#:	19
Client ID:	SW-WS11-112216				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7001.D
Lims ID: 160-20140-A-4
Client ID: SW-WS11-112216
Sample Type: Client
Inject. Date: 01-Dec-2016 16:29:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 160-0009213-019
Misc. Info.: 160-20140-a-4
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:42:54 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:38:49

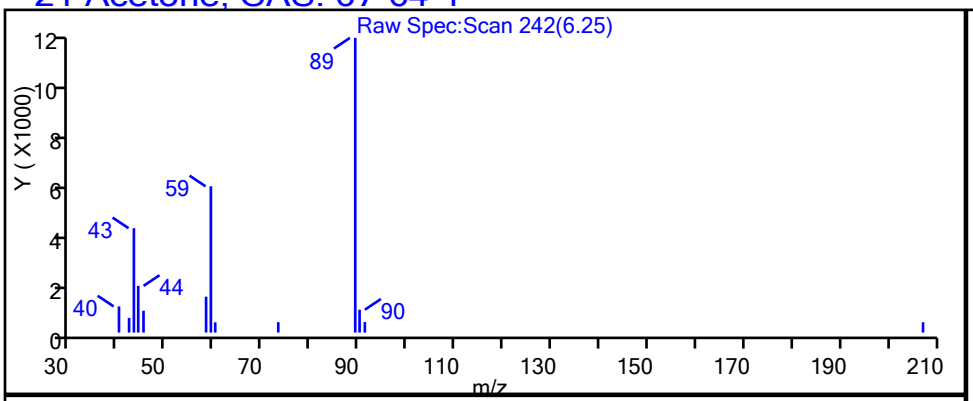
Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	10.6	105.74
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.70
$ 68 Toluene-d8 (Surr)	10.0	10.1	100.90
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.43	94.28

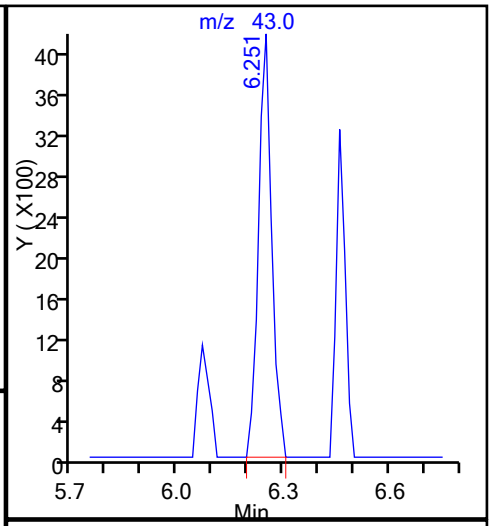
Report Date: 02-Dec-2016 09:43:35 Chrom Revision: 2.2 14-Nov-2016 08:15:18

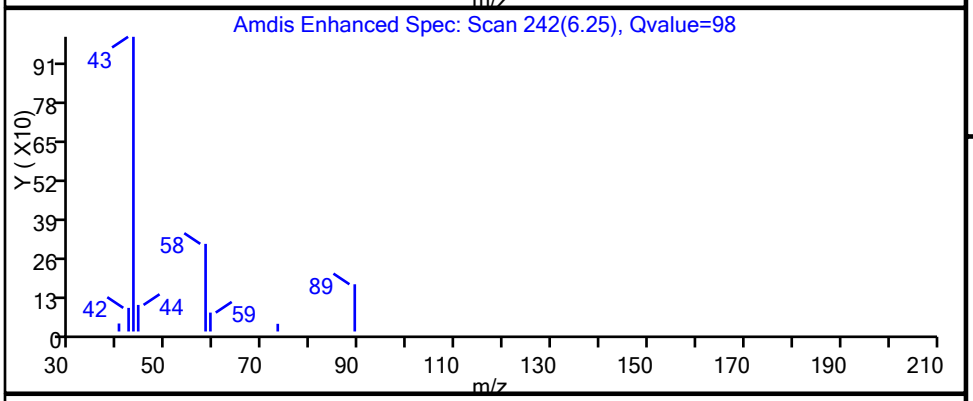
TestAmerica St. Louis

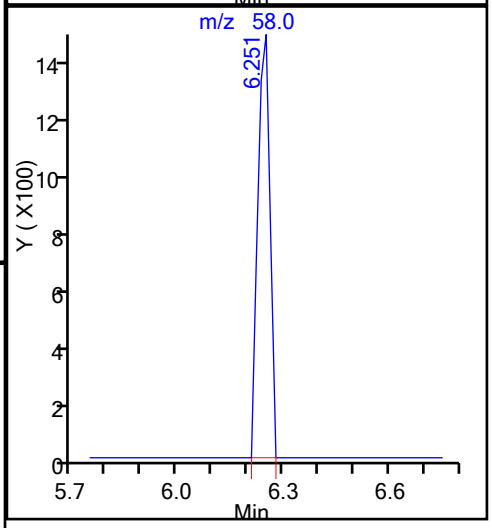
Data File:	\\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LSMP7001.D				
Injection Date:	01-Dec-2016 16:29:30	Instrument ID:	VMSL		
Lims ID:	160-20140-A-4	Lab Sample ID:	160-20140-4		
Client ID:	SW-WS11-112216				
Operator ID:	SMCR	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

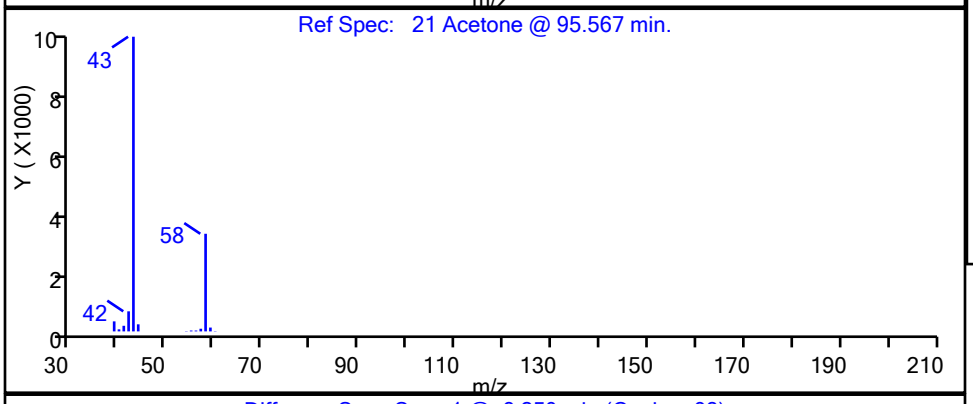
21 Acetone, CAS: 67-64-1

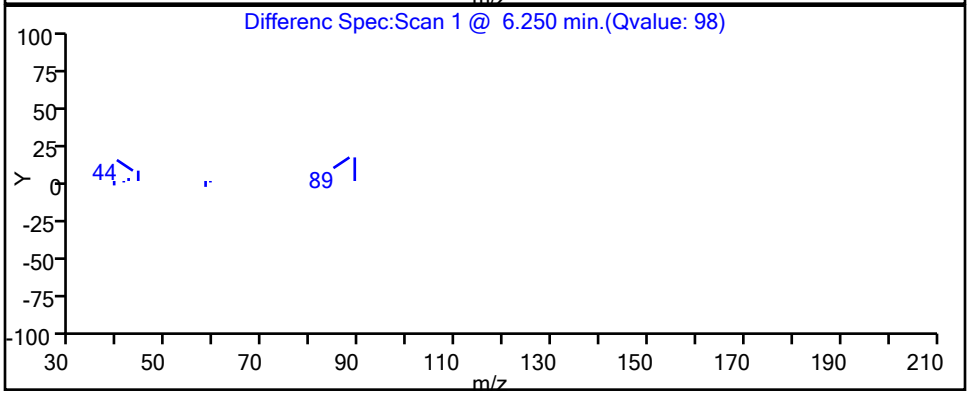












FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 160-281296/8	LICL6941.D
Level 2	IC 160-281296/9	LICL6942.D
Level 3	IC 160-281296/10	LICL6943.D
Level 4	IC 160-281296/11	LICL6944.D
Level 5	ICIS 160-281296/12	LICL6945.D
Level 6	IC 160-281296/13	LICL6946.D
Level 7	IC 160-281296/14	LICL6947.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4241 0.3683	0.4065 0.3567	0.3749	0.3832	0.3765	Ave		0.3843			0.1000	6.1		20.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.1623 0.1568	0.1710 0.1510	0.1607	0.1701	0.1660	Ave		0.1625			0.0100	4.4		20.0			
Chloromethane	0.3870 0.3249	0.3611 0.3181	0.3345	0.3268	0.3240	Ave		0.3395			0.1000	7.4		20.0			
Vinyl chloride	0.3821 0.3414	0.3570 0.3388	0.3348	0.3362	0.3349	Ave		0.3465			0.1000	5.1		20.0			
Butadiene	0.4252 0.3494	0.3806 0.3358	0.3495	0.3520	0.3449	Ave		0.3625			0.0100	8.5		20.0			
Methyl bromide	0.2215 0.1682	0.2124 0.1797	0.1867	0.1734	0.1617	Ave		0.1862			0.1000	12.1		20.0			
Chloroethane	0.2278 0.1983	0.2154 0.1953	0.1971	0.1988	0.1960	Ave		0.2041			0.1000	6.1		20.0			
Trichlorofluoromethane	0.5720 0.5057	0.5433 0.4828	0.5062	0.5189	0.5048	Ave		0.5191			0.1000	5.7		20.0			
Dichlorofluoromethane	0.6280 0.5365	0.5831 0.5241	0.5379	0.5372	0.5320	Ave		0.5541			0.0100	6.8		20.0			
Ethyl ether	0.0942 0.0903	0.0946 0.0894	0.0888	0.0856	0.0883	Ave		0.0902			0.0100	3.6		20.0			
Ethanol	0.0012 0.0006	0.0007 0.0006	0.0007	0.0006	0.0006	Lin1	0.0086	0.0006		*	0.0010				0.9990		0.9900
1,1-Dichloroethene	0.3157 0.2779	0.2962 0.2706	0.2741	0.2741	0.2754	Ave		0.2834			0.1000	5.8		20.0			
Carbon disulfide	1.0573 0.9581	1.0067 0.9349	0.9329	0.9319	0.9513	Ave		0.9676			0.1000	4.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2943 0.2529	0.2747 0.2404	0.2477	0.2576	0.2518	Ave		0.2599			0.1000	7.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Iodomethane	0.0895 0.2007	0.1038 0.2129	0.1169	0.1488	0.1858	Lin1	-0.100	0.2073			0.0100				0.9950		0.9900
Acrolein	0.0125 0.0123	0.0127 0.0122	0.0111	0.0113	0.0120	Ave		0.0120			0.0010	5.0		20.0			
Allyl chloride	0.3916 0.3308	0.3652 0.3114	0.3384	0.3363	0.3382	Ave		0.3446			0.0100	7.6		20.0			
Isopropyl alcohol	0.0054 0.0040	0.0057 0.0038	0.0049	0.0040	0.0039	Ave		0.0046		*	0.0100	17.5		20.0			
Methylene Chloride	0.2391 0.2047	0.2261 0.2037	0.2073	0.2043	0.2058	Ave		0.2130			0.1000	6.5		20.0			
Acetone	+++++ 0.0198	0.0523 0.0184	0.0375	0.0273	0.0215	Lin2	0.0350	0.0183		*	0.1000				0.9960		0.9900
trans-1,2-Dichloroethene	0.3315 0.2879	0.3131 0.2810	0.2822	0.2853	0.2871	Ave		0.2954			0.1000	6.5		20.0			
Methyl acetate	0.0126 0.0117	0.0118 0.0116	0.0115	0.0111	0.0114	Ave		0.0117		*	0.1000	4.2		20.0			
Hexane	0.1209 0.1064	0.1102 0.1033	0.1026	0.1050	0.1054	Ave		0.1077			0.0100	5.9		20.0			
Methyl tert-butyl ether	0.3939 0.3782	0.3895 0.3756	0.3629	0.3580	0.3680	Ave		0.3751			0.1000	3.6		20.0			
tert-Butyl alcohol	0.0064 0.0061	0.0066 0.0063	0.0058	0.0054	0.0059	Ave		0.0061		*	0.0100	6.5		20.0			
Acetonitrile	0.0124 0.0073	0.0097 0.0072	0.0085	0.0075	0.0072	Lin1	0.0255	0.0071			0.0010				1.0000		0.9900
Isopropyl ether	0.6820 0.6145	0.6568 0.5912	0.6197	0.6034	0.6114	Ave		0.6256			0.0100	5.1		20.0			
2-Chloro-1,3-butadiene	0.5333 0.4968	0.5154 0.4739	0.4803	0.4907	0.4970	Ave		0.4982			0.0100	4.1		20.0			
1,1-Dichloroethane	0.5201 0.4542	0.5033 0.4421	0.4523	0.4629	0.4555	Ave		0.4701			0.2000	6.3		20.0			
Acrylonitrile	0.0268 0.0238	0.0257 0.0237	0.0243	0.0234	0.0240	Ave		0.0245			0.0100	5.0		20.0			
Tert-butyl ethyl ether	0.5305 0.5097	0.5199 0.5012	0.4899	0.4816	0.4949	Ave		0.5040			0.0100	3.4		20.0			
Vinyl acetate	0.3074 0.2677	0.2921 0.2636	0.2646	0.2627	0.2640	Ave		0.2746			0.0100	6.5		20.0			
cis-1,2-Dichloroethene	0.3121 0.2711	0.2913 0.2674	0.2680	0.2671	0.2691	Ave		0.2780			0.1000	6.2		20.0			
2,2-Dichloropropane	0.5044 0.4692	0.4781 0.4482	0.4433	0.4606	0.4543	Ave		0.4655			0.0100	4.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Bromochloromethane	0.0938 0.0793	0.0881 0.0772	0.0806	0.0792	0.0797	Ave		0.0826			0.0100	7.3		20.0			
Cyclohexane	0.5884 0.5323	0.5720 0.5097	0.5166	0.5251	0.5223	Ave		0.5380			0.1000	5.6		20.0			
Chloroform	0.4930 0.4378	0.4667 0.4292	0.4254	0.4323	0.4403	Ave		0.4464			0.2000	5.5		20.0			
Ethyl acetate	0.0113 0.0101	0.0099 0.0100	0.0098	0.0089	0.0100	Ave		0.0100			0.0100	7.0		20.0			
Carbon tetrachloride	0.4810 0.4524	0.4540 0.4342	0.4194	0.4393	0.4461	Ave		0.4466			0.1000	4.3		20.0			
Tetrahydrofuran	0.0087 0.0081	0.0083 0.0082	0.0076	0.0076	0.0079	Ave		0.0081			0.0010	4.6		20.0			
1,1,1-Trichloroethane	0.5537 0.5067	0.5286 0.4877	0.4887	0.4993	0.5029	Ave		0.5096			0.1000	4.7		20.0			
2-Butanone	0.0550 0.0296	0.0485 0.0292	0.0395	0.0340	0.0295	Lin1	0.0162	0.0288		*	0.1000				0.9990		0.9900
1,1-Dichloropropene	0.4883 0.4352	0.4682 0.4233	0.4246	0.4255	0.4334	Ave		0.4427			0.0100	5.7		20.0			
Isooctane	1.4184 1.2728	1.3595 1.1849	1.2544	1.2872	1.2628	Ave		1.2914			0.0100	5.9		20.0			
n-Heptane	0.6042 0.5386	0.5921 0.4988	0.5450	0.5322	0.5418	Ave		0.5504			0.0100	6.6		20.0			
Benzene	1.2278 1.0623	1.1540 1.0371	1.0557	1.0511	1.0671	Ave		1.0936			0.5000	6.4		20.0			
Propionitrile	0.0093 0.0089	0.0091 0.0087	0.0089	0.0086	0.0087	Ave		0.0089			0.0010	2.7		20.0			
Methacrylonitrile	0.0613 0.0514	0.0581 0.0494	0.0545	0.0519	0.0522	Ave		0.0541			0.0100	7.8		20.0			
Tert-amyl methyl ether	0.4212 0.4133	0.4145 0.4160	0.3871	0.3767	0.3943	Ave		0.4033			0.0100	4.2		20.0			
Isobutanol	0.0019 0.0017	0.0018 0.0017	0.0016	0.0015	0.0016	Ave		0.0017			0.0010	7.5		20.0			
1,2-Dichloroethane	0.2431 0.2162	0.2342 0.2108	0.2217	0.2150	0.2193	Ave		0.2229			0.1000	5.2		20.0			
Methylcyclohexane	0.5250 0.4545	0.5013 0.4220	0.4646	0.4533	0.4570	Ave		0.4682			0.1000	7.3		20.0			
Trichloroethene	0.3447 0.2953	0.3213 0.2832	0.2967	0.2927	0.2977	Ave		0.3045			0.2000	6.9		20.0			
n-Butanol	0.0014 0.0018	0.0015 0.0018	0.0015	0.0014	0.0016	Ave		0.0016		*	0.0100	10.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromomethane	0.0857 0.0806	0.0856 0.0799	0.0796	0.0793	0.0811	Ave		0.0817			0.0100	3.4		20.0			
Ethyl acrylate	0.1022 0.1037	0.0995 0.1067	0.0949	0.0933	0.1006	Ave		0.1001			0.0100	4.7		20.0			
1,2-Dichloropropane	0.2359 0.2088	0.2191 0.2048	0.2074	0.2037	0.2087	Ave		0.2126			0.1000	5.4		20.0			
Bromodichloromethane	0.2788 0.2687	0.2765 0.2669	0.2516	0.2504	0.2657	Ave		0.2655			0.2000	4.2		20.0			
Methyl methacrylate	0.0616 0.0676	0.0612 0.0678	0.0615	0.0593	0.0639	Ave		0.0633			0.0100	5.2		20.0			
1,4-Dioxane	0.0006 0.0008	0.0007 0.0008	0.0007	0.0007	0.0008	Ave		0.0007		*	0.0010	8.6		20.0			
2-Chloroethyl vinyl ether	0.0437 0.0439	0.0436 0.0428	0.0430	0.0424	0.0417	Ave		0.0430			0.0100	1.8		20.0			
cis-1,3-Dichloropropene	0.3220 0.3185	0.3087 0.3155	0.2964	0.2964	0.3124	Ave		0.3100			0.2000	3.3		20.0			
Toluene	1.2156 1.0916	1.1724 1.0758	1.0676	1.0550	1.0821	Ave		1.1086			0.4000	5.5		20.0			
2-Nitropropane	0.0432 0.0377	0.0418 0.0393	0.0358	0.0345	0.0356	Ave		0.0383			0.0100	8.6		20.0			
4-Methyl-2-pentanone	0.1135 0.1093	0.1144 0.1104	0.1062	0.1014	0.1064	Ave		0.1088			0.1000	4.2		20.0			
Tetrachloroethene	0.4583 0.4059	0.4382 0.3890	0.4010	0.3828	0.4048	Ave		0.4114			0.2000	6.6		20.0			
trans-1,3-Dichloropropene	0.3691 0.3689	0.3535 0.3695	0.3410	0.3456	0.3648	Ave		0.3589			0.1000	3.4		20.0			
Ethyl methacrylate	0.1884 0.2263	0.1950 0.2355	0.1920	0.1966	0.2136	Ave		0.2068			0.0100	8.9		20.0			
1,1,2-Trichloroethane	0.1562 0.1465	0.1554 0.1495	0.1449	0.1434	0.1455	Ave		0.1488			0.1000	3.5		20.0			
Chlorodibromomethane	0.2236 0.2293	0.2203 0.2340	0.2076	0.2116	0.2229	Ave		0.2213			0.1000	4.2		20.0			
1,3-Dichloropropane	0.3705 0.3364	0.3537 0.3375	0.3275	0.3275	0.3338	Ave		0.3410			0.0100	4.6		20.0			
n-Butyl acetate	0.2133 0.2025	0.2028 0.2053	0.1668	0.1765	0.1853	Ave		0.1932			0.0100	8.9		20.0			
1,2-Dibromoethane	0.1687 0.1642	0.1639 0.1652	0.1565	0.1553	0.1606	Ave		0.1621			0.1000	3.0		20.0			
2-Hexanone	0.1112 0.0738	0.0668 0.0741	0.0607	0.0712	0.0708	Lin1	0.0048	0.0728		*	0.1000				0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethylbenzene	2.4006 2.0925	2.3185 1.9878	2.0415	1.9562	2.0942	Ave		2.1273			0.1000	7.9		20.0			
Chlorobenzene	1.1718 1.0080	1.1247 0.9907	1.0237	0.9936	1.0118	Ave		1.0463			0.5000	6.9		20.0			
1,1,1,2-Tetrachloroethane	0.3444 0.3287	0.3335 0.3301	0.3101	0.3121	0.3277	Ave		0.3267			0.0100	3.7		20.0			
m-Xylene & p-Xylene	0.9112 0.8325	0.8785 0.8101	0.8053	0.7645	0.8190	Ave		0.8316			0.1000	5.9		20.0			
o-Xylene	0.7924 0.7367	0.7664 0.7260	0.7040	0.6855	0.7263	Ave		0.7339			0.3000	4.9		20.0			
Styrene	1.0771 1.1284	1.0795 1.1243	1.0085	1.0189	1.0917	Ave		1.0755			0.3000	4.4		20.0			
Bromoform	0.2217 0.2498	0.2241 0.2696	0.2154	0.2167	0.2388	Ave		0.2337			0.1000	8.6		20.0			
Isopropylbenzene	5.2640 4.7616	4.9414 4.5757	4.5196	4.2248	4.7441	Ave		4.7187			0.1000	7.0		20.0			
N-Propylbenzene	5.9561 5.4984	5.6703 5.2383	5.2042	4.7332	5.4915	Ave		5.3989			0.0100	7.2		20.0			
Bromobenzene	0.9211 0.8259	0.8488 0.8428	0.7976	0.7873	0.8261	Ave		0.8357			0.0100	5.2		20.0			
1,1,2,2-Tetrachloroethane	0.3895 0.3627	0.3557 0.3821	0.3438	0.3363	0.3548	Ave		0.3607			0.3000	5.3		20.0			
1,3,5-Trimethylbenzene	3.9231 3.7367	3.7844 3.6659	3.5136	3.2986	3.7563	Ave		3.6684			0.0100	5.6		20.0			
2-Chlorotoluene	3.7613 3.3830	3.6080 3.3206	3.2650	3.0795	3.3786	Ave		3.3994			0.0100	6.6		20.0			
1,2,3-Trichloropropane	0.1125 0.1165	0.1206 0.1216	0.1160	0.1093	0.1155	Ave		0.1160			0.0100	3.7		20.0			
trans-1,4-Dichloro-2-butene	0.0929 0.1012	0.1058 0.1065	0.0980	0.0946	0.0982	Ave		0.0996			0.0100	5.2		20.0			
Cyclohexanone	0.0082 0.0076	0.0077 0.0082	0.0062	0.0058	0.0067	Ave		0.0072			0.0010	13.6		20.0			
4-Chlorotoluene	3.2673 2.9887	3.1873 2.9673	2.8637	2.7220	3.0140	Ave		3.0015			0.0100	6.1		20.0			
tert-Butylbenzene	3.8035 3.5191	3.6174 3.3817	3.2901	3.0237	3.4750	Ave		3.4444			0.0100	7.2		20.0			
1,2,4-Trimethylbenzene	3.8578 3.6611	3.7195 3.6082	3.4422	3.2193	3.6538	Ave		3.5946			0.0100	5.8		20.0			
sec-Butylbenzene	5.7911 5.3826	5.5258 5.0972	5.0518	4.5037	5.3234	Ave		5.2394			0.0100	7.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
4-Isopropyltoluene	4.6492 4.4986	4.5120 4.2453	4.1831	3.7074	4.4588	Ave		4.3221			0.0100	7.3		20.0			
1,3-Dichlorobenzene	1.9397 1.7387	1.8751 1.7526	1.7003	1.6213	1.7483	Ave		1.7680			0.6000	6.0		20.0			
1,2,3-Trimethylbenzene	3.4728 3.2356	3.3685 3.1893	3.0898	2.9523	3.2527	Ave		3.2230			0.0100	5.3		20.0			
1,4-Dichlorobenzene	1.8827 1.6673	1.7882 1.6567	1.6574	1.5662	1.6740	Ave		1.6989			0.5000	6.1		20.0			
n-Butylbenzene	1.2209 1.1584	1.1353 1.1436	1.0546	0.9072	1.1297	Ave		1.1071			0.0100	9.1		20.0			
Benzyl chloride	0.1247 0.1512	0.1170 0.1650	0.1138	0.1210	0.1412	Ave		0.1334			0.0100	14.5		20.0			
1,2-Dichlorobenzene	1.5304 1.3863	1.4657 1.4011	1.3840	1.3047	1.3818	Ave		1.4077			0.4000	5.1		20.0			
Nonanal	0.1714 0.2034	0.1391 0.2273	0.1263	0.1463	0.1753	Lin	-0.248	0.2286			0.0100				0.9960		0.9900
1,2-Dibromo-3-Chloropropane	0.0494 0.0613	0.0497 0.0629	0.0509	0.0553	0.0580	Ave		0.0554			0.0500	10.1		20.0			
1,3,5-Trichlorobenzene	1.3895 1.2050	1.2553 1.1618	1.1162	1.1051	1.2079	Ave		1.2058			0.0100	8.0		20.0			
Hexachlorobutadiene	0.8521 0.7368	0.7597 0.6172	0.6607	0.5888	0.7144	Ave		0.7043			0.0100	12.8		20.0			
1,2,4-Trichlorobenzene	0.3605 0.3130	0.3087 0.2532	0.2469	0.2807	0.2957	Ave		0.2941			0.2000	13.2		20.0			
Naphthalene	0.2186 0.1754	0.1721 0.1464	0.1283	0.1526	0.1632	Ave		0.1652			0.0100	17.3		20.0			
1,2,3-Trichlorobenzene	0.0343 0.0498	0.0448 +++++	0.0355	0.0409	0.0457	Lin1	-0.010	0.0483			0.0100				0.9940		0.9900
Dibromofluoromethane (Surr)	0.1632 0.1761	0.1680 0.1926	0.1665	0.1691	0.1795	Ave		0.1736			0.0100	5.8		20.0			
1,2-Dichloroethane-d4 (Surr)	0.1748 0.1647	0.1747 0.1786	0.1733	0.1699	0.1724	Ave		0.1726			0.0100	2.6		20.0			
Toluene-d8 (Surr)	1.4282 1.3723	1.4382 1.4859	1.3844	1.3973	1.4326	Ave		1.4198			0.0100	2.7		20.0			
4-Bromofluorobenzene (Surr)	1.0485 1.0040	1.0030 1.0877	0.9651	0.9660	1.0228	Ave		1.0139			0.0100	4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 160-281296/8	LICL6941.D
Level 2	IC 160-281296/9	LICL6942.D
Level 3	IC 160-281296/10	LICL6943.D
Level 4	IC 160-281296/11	LICL6944.D
Level 5	ICIS 160-281296/12	LICL6945.D
Level 6	IC 160-281296/13	LICL6946.D
Level 7	IC 160-281296/14	LICL6947.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	34757 1266849	67109 2437431	123970	254890	629263	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	FB	Ave	13304 539446	28223 1032083	53133	113110	277374	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Chloromethane	FB	Ave	31718 1117540	59614 2173756	110623	217381	541480	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Vinyl chloride	FB	Ave	31316 1174257	58935 2315076	110728	223645	559685	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Butadiene	FB	Ave	34841 1201837	62827 2294606	115591	234144	576413	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Methyl bromide	FB	Ave	18154 578459	35056 1227611	61732	115309	270311	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Chloroethane	FB	Ave	18670 682298	35555 1334244	65195	132235	327593	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Trichlorofluoromethane	FB	Ave	46873 1739540	89698 3298724	167397	345161	843624	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Dichlorofluoromethane	FB	Ave	51460 1845502	96267 3581112	177897	357331	889057	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Ethyl ether	FB	Ave	7720 310687	15625 610807	29359	56907	147524	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Ethanol	FB	Lin1	3849 86639	4798 170982	9627	17161	41934	20.0 800	40.0 1600	80.0	160	400
1,1-Dichloroethene	FB	Ave	25872 955977	48901 1849173	90649	182307	460245	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Carbon disulfide	FB	Ave	86642 3295897	166194 6388312	308534	619828	1589801	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	24119 870101	45343 1642495	81928	171340	420737	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Iodomethane	FB	Lin1	7336 690412	17135 1454807	38652	98954	310455	0.500 20.0	1.00 40.0	2.00	4.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acrolein	FB	Ave	5137 211500	10482 418421	18318	37729	100549	2.50 100	5.00 200	10.0	20.0	50.0
Allyl chloride	FB	Ave	32095 1137959	60283 2127951	111916	223675	565192	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Isopropyl alcohol	FB	Ave	4433 138007	9467 260989	16357	26788	65470	5.00 200	10.0 400	20.0	40.0	100
Methylene Chloride	FB	Ave	19591 704236	37319 1391697	68547	135891	343965	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Acetone	FB	Lin2	+++++ 68217	8640 125898	12401	18170	35983	+++++ 20.0	1.00 40.0	2.00	4.00	10.0
trans-1,2-Dichloroethene	FB	Ave	27168 990292	51681 1919777	93336	189790	479828	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Methyl acetate	FB	Ave	5181 202033	9722 397484	18956	36819	95220	2.50 100	5.00 200	10.0	20.0	50.0
Hexane	FB	Ave	9910 366101	18190 705685	33935	69845	176188	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Methyl tert-butyl ether	FB	Ave	32281 1300871	64301 2566463	120004	238112	614935	0.500 20.0	1.00 40.0	2.00	4.00	10.0
tert-Butyl alcohol	FB	Ave	5222 210487	10897 428399	19139	36181	98262	5.00 200	10.0 400	20.0	40.0	100
Acetonitrile	FB	Lin1	10182 250124	15983 494823	28246	50107	121002	5.00 200	10.0 400	20.0	40.0	100
Isopropyl ether	FB	Ave	55890 2113997	108423 4039495	204943	401341	1021822	0.500 20.0	1.00 40.0	2.00	4.00	10.0
2-Chloro-1,3-butadiene	FB	Ave	43701 1709128	85081 3237912	158850	326405	830633	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,1-Dichloroethane	FB	Ave	42620 1562385	83094 3021096	149580	307930	761175	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Acrylonitrile	FB	Ave	21929 818381	42347 1616203	80291	155855	401307	5.00 200	10.0 400	20.0	40.0	100
Tert-butyl ethyl ether	FB	Ave	43470 1753284	85828 3424924	162009	320344	827152	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Vinyl acetate	FB	Ave	25194 920843	48221 1801459	87509	174711	441190	0.500 20.0	1.00 40.0	2.00	4.00	10.0
cis-1,2-Dichloroethene	FB	Ave	25578 932621	48084 1826931	88630	177641	449812	0.500 20.0	1.00 40.0	2.00	4.00	10.0
2,2-Dichloropropane	FB	Ave	41333 1614134	78930 3062840	146608	306380	759282	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Bromochloromethane	FB	Ave	7687 272936	14543 527244	26659	52675	133205	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Cyclohexane	FB	Ave	48217 1831079	94434 3482473	170837	349302	872803	0.500 20.0	1.00 40.0	2.00	4.00	10.0

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chloroform	FB	Ave	40402 1506188	77042 2932787	140682	287547	735921	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Ethyl acetate	FB	Ave	1856 69442	3272 136156	6510	11890	33465	1.00 40.0	2.00 80.0	4.00	8.00	20.0
Carbon tetrachloride	FB	Ave	39416 1556273	74941 2966822	138690	292200	745509	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Tetrahydrofuran	FB	Ave	1418 55840	2732 112362	5047	10126	26407	1.00 40.0	2.00 80.0	4.00	8.00	20.0
1,1,1-Trichloroethane	FB	Ave	45373 1742919	87268 3332386	161610	332079	840496	0.500 20.0	1.00 40.0	2.00	4.00	10.0
2-Butanone	FB	Lin1	4507 101918	8000 199679	13057	22620	49331	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,1-Dichloropropene	FB	Ave	40017 1497224	77290 2892465	140427	283011	724338	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Isooctane	FB	Ave	116235 4378630	224426 8096326	414838	856180	2110514	0.500 20.0	1.00 40.0	2.00	4.00	10.0
n-Heptane	FB	Ave	49515 1852819	97753 3408136	180248	353998	905550	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Benzene	FB	Ave	100619 3654197	190509 7086738	349131	699145	1783416	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Propionitrile	FB	Ave	7613 305536	14991 593295	29590	57326	145758	5.00 200	10.0 400	20.0	40.0	100
Methacrylonitrile	FB	Ave	50270 1769409	95943 3377681	180290	345429	871732	5.00 200	10.0 400	20.0	40.0	100
Tert-amyl methyl ether	FB	Ave	34514 1421682	68434 2842292	128016	250571	658974	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Isobutanol	FB	Ave	3849 147154	7483 292616	13470	25196	66323	12.5 500	25.0 1000	50.0	100	250
1,2-Dichloroethane	FB	Ave	19925 743642	38662 1440245	73333	142992	366566	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Methylcyclohexane	FB	Ave	43021 1563571	82754 2883578	153636	301486	763762	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Trichloroethene	FB	Ave	28246 1015977	53034 1935340	98121	194719	497479	0.500 20.0	1.00 40.0	2.00	4.00	10.0
n-Butanol	FB	Ave	2893 152204	6028 308924	12345	24075	66701	12.5 500	25.0 1000	50.0	100	250
Dibromomethane	FB	Ave	7024 277294	14130 546265	26333	52743	135531	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Ethyl acrylate	FB	Ave	8372 356890	16421 728842	31401	62061	168166	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2-Dichloropropane	FB	Ave	19328 718376	36171 1399481	68606	135521	348740	0.500 20.0	1.00 40.0	2.00	4.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Bromodichloromethane	FB	Ave	22851 924350	45648 1823547	83217	166537	444117	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Methyl methacrylate	FB	Ave	10100 464975	20197 926051	40673	78876	213504	1.00 40.0	2.00 80.0	4.00	8.00	20.0
1,4-Dioxane	FB	Ave	1033 54571	2311 109312	4648	9031	25197	10.0 400	20.0 800	40.0	80.0	200
2-Chloroethyl vinyl ether	FB	Ave	3580 151106	7198 292523	14225	28218	69680	0.500 20.0	1.00 40.0	2.00	4.00	10.0
cis-1,3-Dichloropropene	FB	Ave	26391 1095559	50955 2155570	98035	197176	522105	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Toluene	CBNZ d5	Ave	65258 2417477	124949 4637051	231034	448180	1164126	0.500 20.0	1.00 40.0	2.00	4.00	10.0
2-Nitropropane	CBNZ d5	Ave	4633 167111	8904 338808	15504	29329	76496	1.00 40.0	2.00 80.0	4.00	8.00	20.0
4-Methyl-2-pentanone	CBNZ d5	Ave	6091 242027	12195 475959	22990	43080	114439	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Tetrachloroethene	CBNZ d5	Ave	24605 898919	46707 1676775	86768	162609	435527	0.500 20.0	1.00 40.0	2.00	4.00	10.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	19817 817017	37677 1592877	73794	146802	392470	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	10112 501225	20788 1015131	41553	83525	229752	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	8387 324354	16563 644233	31348	60898	156578	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Chlorodibromomethane	CBNZ d5	Ave	12004 507826	23484 1008525	44925	89885	239786	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	19889 744965	37697 1454871	70879	139130	359106	0.500 20.0	1.00 40.0	2.00	4.00	10.0
n-Butyl acetate	CBNZ d5	Ave	11450 448387	21619 885022	36099	74962	199293	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	9054 363684	17468 712066	33869	65968	172769	0.500 20.0	1.00 40.0	2.00	4.00	10.0
2-Hexanone	CBNZ d5	Lin1	5967 163348	7124 319443	13140	30242	76198	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Ethylbenzene	CBNZ d5	Ave	128871 4634193	247107 8568131	441779	830999	2252945	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Chlorobenzene	CBNZ d5	Ave	62908 2232321	119867 4270468	221535	422077	1088551	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	18491 728039	35547 1422693	67115	132574	352504	0.500 20.0	1.00 40.0	2.00	4.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	48915 1843790	93626 3491935	174280	324753	881047	0.500 20.0	1.00 40.0	2.00	4.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
o-Xylene	CBNZ d5	Ave	42538 1631565	81685 3129584	152347	291221	781318	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Styrene	CBNZ d5	Ave	57821 2499012	115057 4846156	218239	432844	1174476	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Bromoform	DCBd 4	Ave	5538 257362	11252 527075	21806	43056	118333	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Isopropylbenzene	DCBd 4	Ave	131482 4906160	248118 8944910	457578	839271	2350842	0.500 20.0	1.00 40.0	2.00	4.00	10.0
N-Propylbenzene	DCBd 4	Ave	148768 5665390	284719 10240269	526882	940266	2721221	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Bromobenzene	DCBd 4	Ave	23006 850995	42621 1647574	80747	156405	409347	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9730 373688	17861 746919	34810	66805	175822	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	97989 3850130	190024 7166454	355729	655268	1861340	0.500 20.0	1.00 40.0	2.00	4.00	10.0
2-Chlorotoluene	DCBd 4	Ave	93948 3485739	181167 6491459	330551	611756	1674215	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	2810 120058	6057 237785	11749	21705	57229	0.500 20.0	1.00 40.0	2.00	4.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2320 104313	5310 208148	9917	18785	48674	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Cyclohexanone	DCBd 4	Ave	2052 78145	3851 160470	6303	11424	33078	5.00 200	10.0 400	20.0	40.0	100
4-Chlorotoluene	DCBd 4	Ave	81608 3079404	160040 5800755	289932	540729	1493544	0.500 20.0	1.00 40.0	2.00	4.00	10.0
tert-Butylbenzene	DCBd 4	Ave	95002 3626000	181640 6610880	333093	600673	1721989	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	96358 3772222	186767 7053640	348497	639521	1810559	0.500 20.0	1.00 40.0	2.00	4.00	10.0
sec-Butylbenzene	DCBd 4	Ave	144648 5546004	277465 9964528	511453	894678	2637895	0.500 20.0	1.00 40.0	2.00	4.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	116125 4635244	226558 8299118	423510	736491	2209458	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	48450 1791509	94153 3426088	172147	322070	866321	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	86741 3333837	169139 6234680	312815	586477	1611817	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	47026 1717980	89791 3238676	167797	311133	829538	0.500 20.0	1.00 40.0	2.00	4.00	10.0
n-Butylbenzene	DCBd 4	Ave	30495 1193593	57007 2235562	106767	180214	559808	0.500 20.0	1.00 40.0	2.00	4.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1 Analy Batch No.: 281296

SDG No.:

Instrument ID: VMSL GC Column: RTX-VMS40 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/29/2016 14:17 Calibration End Date: 11/29/2016 16:48 Calibration ID: 11912

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzyl chloride	DCBd 4	Ave	3114 155741	5874 322469	11523	24039	69947	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	38225 1428360	73596 2739006	140119	259177	684701	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Nonanal	DCBd 4	Lin	4281 209606	6986 444393	12783	29068	86845	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1234 63145	2498 122991	5152	10986	28724	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	34707 1241628	63032 2271260	113006	219531	598559	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Hexachlorobutadiene	DCBd 4	Ave	21284 759183	38146 1206596	66894	116970	353998	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9004 322504	15502 494990	24993	55754	146523	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Naphthalene	DCBd 4	Ave	5460 180730	8640 286216	12986	30321	80852	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Lin1	856 51327	2248 +++++	3598	8129	22665	0.500 20.0	1.00 +++++	2.00	4.00	10.0
Dibromofluoromethane (Surr)	FB	Ave	13374 605617	27736 1316162	55062	112479	299945	0.500 20.0	1.00 40.0	2.00	4.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	14326 566414	28841 1220230	57311	112977	288086	0.500 20.0	1.00 40.0	2.00	4.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	76670 3039086	153280 6404693	299600	593583	1541217	0.500 20.0	1.00 40.0	2.00	4.00	10.0
4-Bromofluorobenzene (Surr)	DCBd 4	Ave	26189 1034534	50364 2126248	97706	191906	506809	0.500 20.0	1.00 40.0	2.00	4.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 29-Nov-2016 14:17:30 ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 0.5
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:37 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:04:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	100	34757	0.5000	0.5518	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	97	13304	0.5000	0.4994	M
3 Chloromethane	50	3.360	3.360	0.000	98	31718	0.5000	0.5700	
4 Vinyl chloride	62	3.513	3.514	-0.001	98	31316	0.5000	0.5515	
5 Butadiene	39	3.541	3.542	-0.001	95	34841	0.5000	0.5865	
6 Bromomethane	94	4.100	4.100	0.000	92	18154	0.5000	0.5948	
7 Chloroethane	64	4.337	4.324	0.013	98	18670	0.5000	0.5581	
8 Trichlorofluoromethane	101	4.575	4.561	0.014	99	46873	0.5000	0.5509	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	51460	0.5000	0.5666	
10 Ethyl ether	74	5.078	5.078	0.000	92	7720	0.5000	0.5224	
11 Ethanol	45	5.315	5.315	0.000	72	3849	20.0	24.2	
12 1,1-Dichloroethene	96	5.371	5.385	-0.014	98	25872	0.5000	0.5569	
13 Carbon disulfide	76	5.427	5.427	0.000	100	86642	0.5000	0.5463	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	90	24119	0.5000	0.5662	
16 Iodomethane	142	5.594	5.595	-0.001	75	7336	0.5000	0.6986	
S 15 1,2-Dichloroethene, Total	96				0			1.12	
17 Acrolein	56	5.860	5.860	0.000	97	5137	2.50	2.60	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	89	32095	0.5000	0.5683	
19 Isopropyl alcohol	45	6.069	6.069	0.000	92	4433	5.00	5.94	
20 Methylene Chloride	84	6.181	6.181	0.000	91	19591	0.5000	0.5612	
21 Acetone	43	6.251	6.251	0.000	98	6581	0.5000	0.2842	
22 trans-1,2-Dichloroethene	96	6.376	6.377	-0.001	99	27168	0.5000	0.5611	
23 Methyl acetate	74	6.390	6.391	-0.001	97	5181	2.50	2.71	
24 Hexane	86	6.460	6.460	0.000	93	9910	0.5000	0.5615	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	85	32281	0.5000	0.5250	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	57	5222	5.00	5.25	
27 Acetonitrile	41	6.823	6.824	-0.001	98	10182	5.00	5.14	
28 Isopropyl ether	45	6.921	6.921	0.000	92	55890	0.5000	0.5451	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	92	43701	0.5000	0.5352	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	96	42620	0.5000	0.5532	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
31 Acrylonitrile	53	7.173	7.173	0.000	98	21929	5.00	5.46	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	95	43470	0.5000	0.5263	
33 Vinyl acetate	43	7.354	7.354	0.000	98	25194	0.5000	0.5598	
34 cis-1,2-Dichloroethene	96	7.675	7.689	-0.014	79	25578	0.5000	0.5613	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	92	41333	0.5000	0.5418	
37 Chlorobromomethane	128	7.899	7.899	0.000	51	7687	0.5000	0.5681	
36 Cyclohexane	84	7.899	7.899	0.000	89	48217	0.5000	0.5468	
38 Chloroform	83	7.941	7.955	-0.014	93	40402	0.5000	0.5522	
39 Ethyl acetate	45	8.038	8.039	-0.001	99	1856	1.00	1.13	
40 Carbon tetrachloride	117	8.108	8.108	0.000	97	39416	0.5000	0.5385	
41 Tetrahydrofuran	71	8.136	8.122	0.014	49	1418	1.00	1.07	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	13374	0.5000	0.4701	
43 1,1,1-Trichloroethane	97	8.164	8.178	-0.014	97	45373	0.5000	0.5432	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	68	4507	0.5000	0.3926	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	95	40017	0.5000	0.5516	
44 Isooctane	57	8.360	8.360	0.000	97	116235	0.5000	0.5492	
46 n-Heptane	43	8.443	8.444	-0.001	90	49515	0.5000	0.5489	
48 Benzene	78	8.527	8.527	0.000	96	100619	0.5000	0.5614	
49 Propionitrile	54	8.555	8.555	0.000	91	7613	5.00	5.23	
50 Methacrylonitrile	41	8.569	8.569	0.000	91	50270	5.00	5.67	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	95	34514	0.5000	0.5222	
52 Isobutyl alcohol	42	8.667	8.667	0.000	87	3849	12.5	13.9	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	90	14326	0.5000	0.5064	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	19925	0.5000	0.5454	
* 55 Fluorobenzene	96	8.918	8.919	0.000	99	1638973	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	89	43021	0.5000	0.5606	
57 Trichloroethene	95	9.072	9.072	0.000	65	28246	0.5000	0.5659	
59 n-Butanol	56	9.309	9.310	-0.001	84	2893	12.5	11.2	
61 Dibromomethane	93	9.477	9.477	0.000	95	7024	0.5000	0.5246	
60 Ethyl acrylate	55	9.505	9.505	0.000	97	8372	0.5000	0.5101	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	90	19328	0.5000	0.5546	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	22851	0.5000	0.5251	
64 Methyl methacrylate	69	9.700	9.701	-0.001	92	10100	1.00	0.9742	
65 1,4-Dioxane	88	9.784	9.784	0.000	23	1033	10.0	8.72	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	91	3580	0.5000	0.5077	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	93	26391	0.5000	0.5194	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	76670	0.5000	0.5029	
69 Toluene	92	10.385	10.385	0.000	98	65258	0.5000	0.5483	
70 2-Nitropropane	43	10.594	10.608	-0.014	95	4633	1.00	1.13	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	94	6091	0.5000	0.5214	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	73	19817	0.5000	0.5142	
73 Tetrachloroethene	164	10.748	10.748	0.000	98	24605	0.5000	0.5570	
74 Ethyl methacrylate	69	10.818	10.832	-0.014	88	10112	0.5000	0.4555	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	8387	0.5000	0.5251	
76 Chlorodibromomethane	129	11.083	11.083	0.000	88	12004	0.5000	0.5051	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	19889	0.5000	0.5432	
78 n-Butyl acetate	43	11.307	11.307	0.000	97	11450	0.5000	0.5520	
79 Ethylene Dibromide	107	11.321	11.321	-0.001	98	9054	0.5000	0.5204	
80 2-Hexanone	43	11.432	11.432	0.000	93	5967	0.5000	0.6970	
81 1-Chlorohexane	91	11.698	11.698	0.000	98	39867	0.5000	0.5335	
* 83 Chlorobenzene-d5	117	11.753	11.754	-0.001	91	1073674	10.0	10.0	
82 Ethylbenzene	91	11.753	11.768	-0.015	93	128871	0.5000	0.5642	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 Chlorobenzene	112	11.767	11.782	-0.015	92	62908	0.5000	0.5600	
85 1,1,1,2-Tetrachloroethane	131	11.809	11.823	-0.014	88	18491	0.5000	0.5272	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	98	48915	0.5000	0.5479	
88 o-Xylene	106	12.284	12.284	0.000	98	42538	0.5000	0.5398	
89 Styrene	104	12.340	12.340	0.000	94	57821	0.5000	0.5007	
90 Bromoform	173	12.410	12.410	0.000	96	5538	0.5000	0.4743	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	131482	0.5000	0.5578	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	87	26189	0.5000	0.5171	
93 N-Propylbenzene	91	12.941	12.955	-0.014	98	148768	0.5000	0.5516	
94 Bromobenzene	156	12.982	12.983	-0.001	96	23006	0.5000	0.5511	
95 1,1,2,2-Tetrachloroethane	83	13.010	13.011	-0.001	95	9730	0.5000	0.5400	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	97989	0.5000	0.5347	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	93948	0.5000	0.5532	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	1	2810	0.5000	0.4849	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	71	2320	0.5000	0.4664	
100 Cyclohexanone	55	13.248	13.248	0.000	84	2052	5.00	5.71	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	81608	0.5000	0.5443	
102 tert-Butylbenzene	119	13.429	13.430	-0.001	93	95002	0.5000	0.5521	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	96358	0.5000	0.5366	
104 sec-Butylbenzene	105	13.597	13.597	0.000	94	144648	0.5000	0.5527	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	116125	0.5000	0.5378	
106 1,3-Dichlorobenzene	146	13.862	13.863	-0.001	98	48450	0.5000	0.5486	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	58	86741	0.5000	0.5387	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	96	499551	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	47026	0.5000	0.5541	
111 n-Butylbenzene	134	14.128	14.142	-0.014	97	30495	0.5000	0.5514	
110 Benzyl chloride	126	14.170	14.170	0.000	1	3114	0.5000	0.4673	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	96	38225	0.5000	0.5436	
113 n-Nonyl Aldehyde	57	15.077	15.078	-0.001	86	4281	0.5000	1.46	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	1	1234	0.5000	0.4462	M
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	97	34707	0.5000	0.5762	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	97	21284	0.5000	0.6050	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	93	9004	0.5000	0.6129	
118 Naphthalene	128	16.167	16.167	0.000	1	5460	0.5000	0.6615	M
120 1,2,3-Trichlorobenzene	180	16.362	16.363	0.000	1	856	0.5000	0.5595	M
S 119 Xylenes, Total	106				0			1.09	
S 130 Trihalomethanes, Total	1				0			2.06	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 Surr 25_00067	Amount Added: 0.50	Units: uL	
8260 NewWkMix_00194	Amount Added: 0.50	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

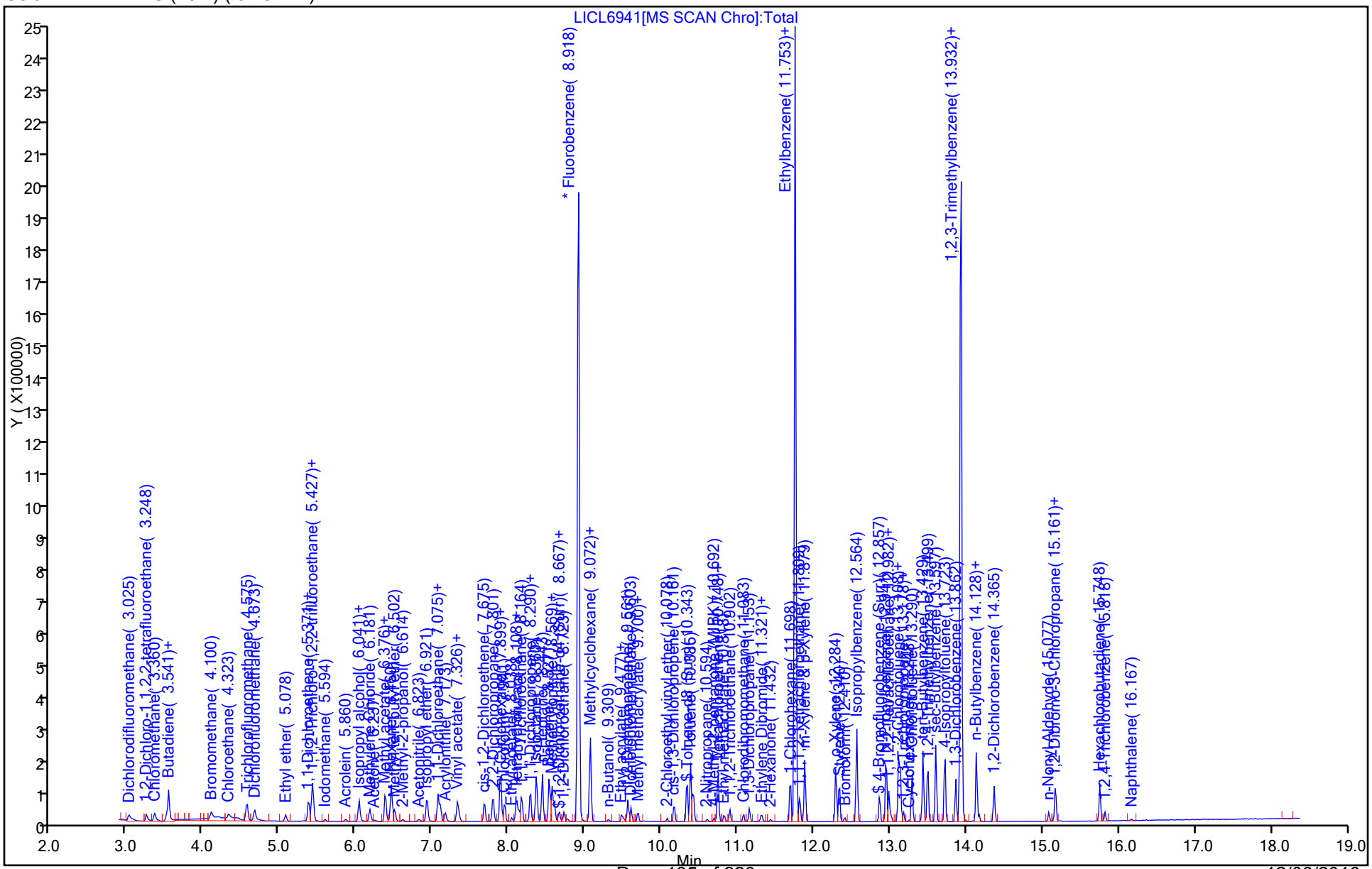
Report Date: 01-Dec-2016 13:45:38 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D

Injection Date:	29-Nov-2016 14:17:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis

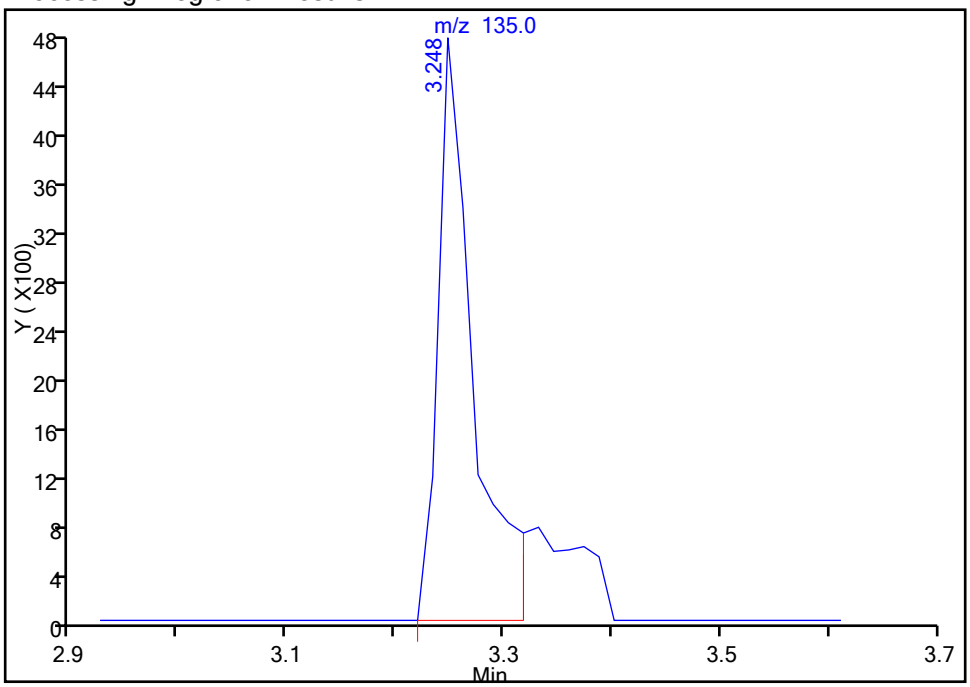
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D
Injection Date: 29-Nov-2016 14:17:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

2 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

Signal: 1

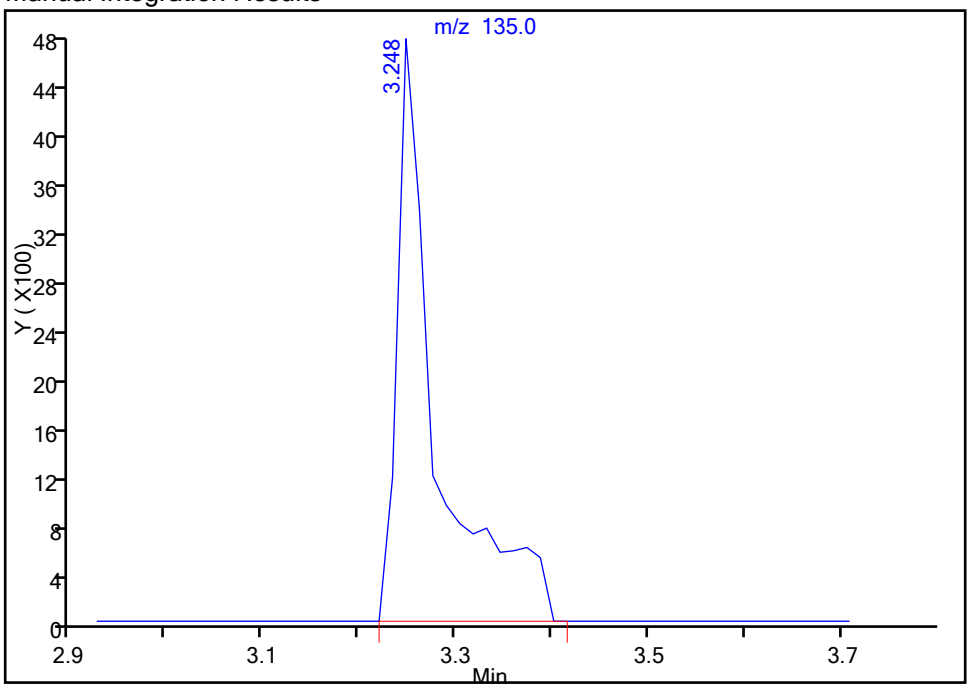
Processing Integration Results

RT: 3.25
Area: 10788
Amount: 0.495524
Amount Units: ug/l



Manual Integration Results

RT: 3.25
Area: 13304
Amount: 0.499372
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:11:59
Audit Action: Manually Integrated Audit Reason: Peak Tail

TestAmerica St. Louis

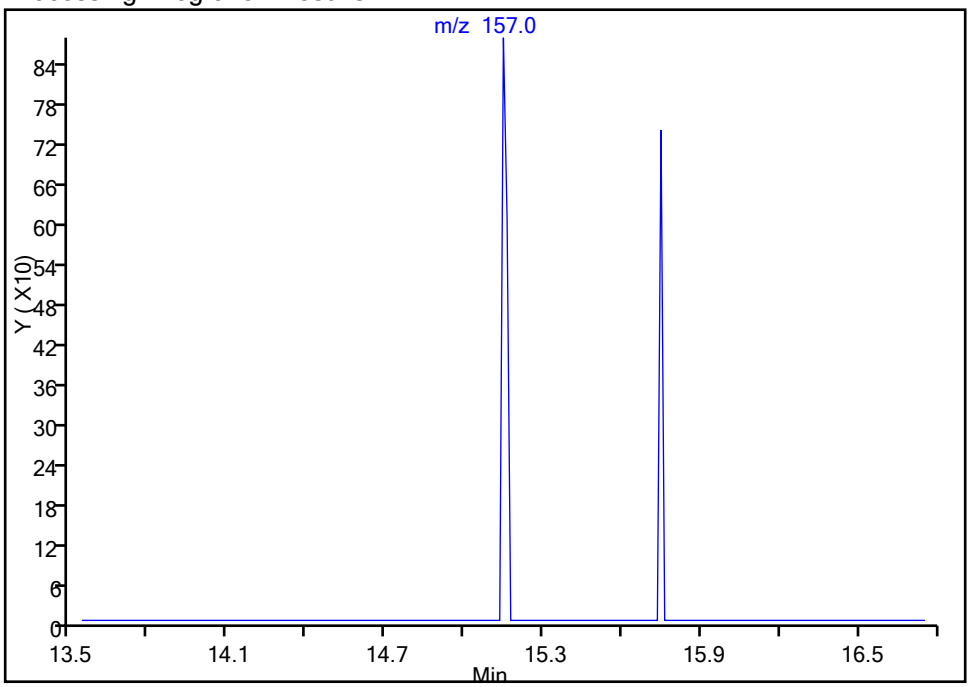
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D
Injection Date: 29-Nov-2016 14:17:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

115 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

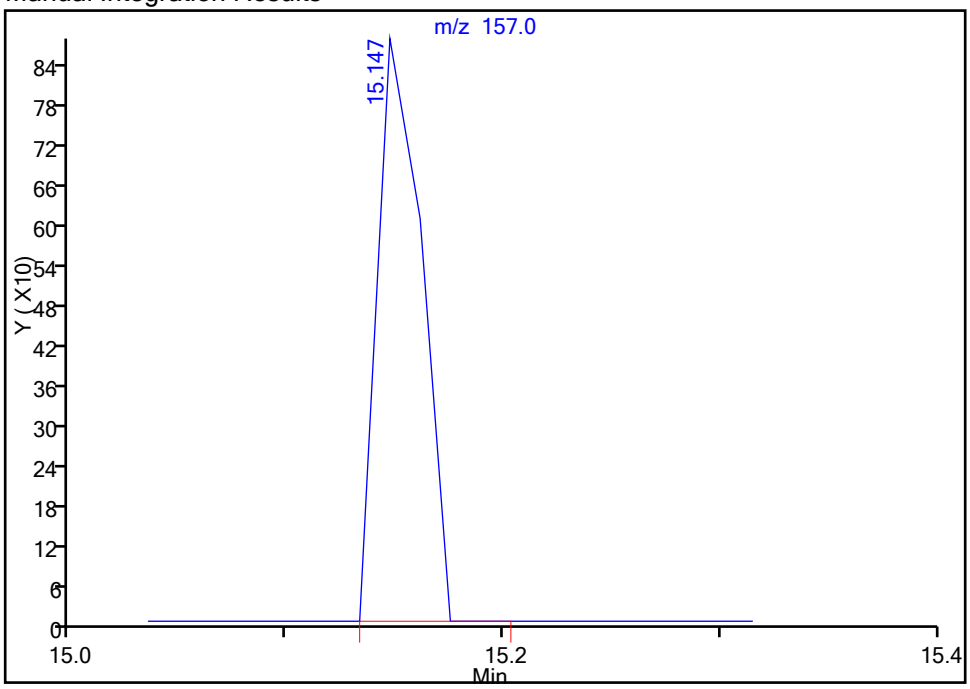
Not Detected
Expected RT: 15.15

Processing Integration Results



Manual Integration Results

RT: 15.15
Area: 1234
Amount: 0.446223
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:11:59
Audit Action: Assigned Compound ID Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica St. Louis

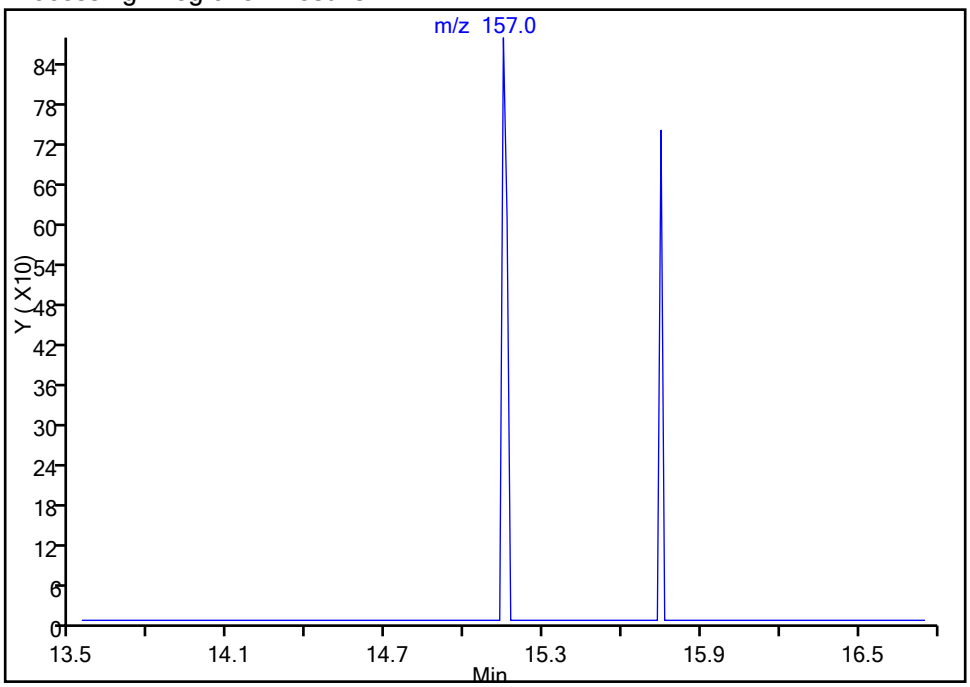
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D
Injection Date: 29-Nov-2016 14:17:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

115 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

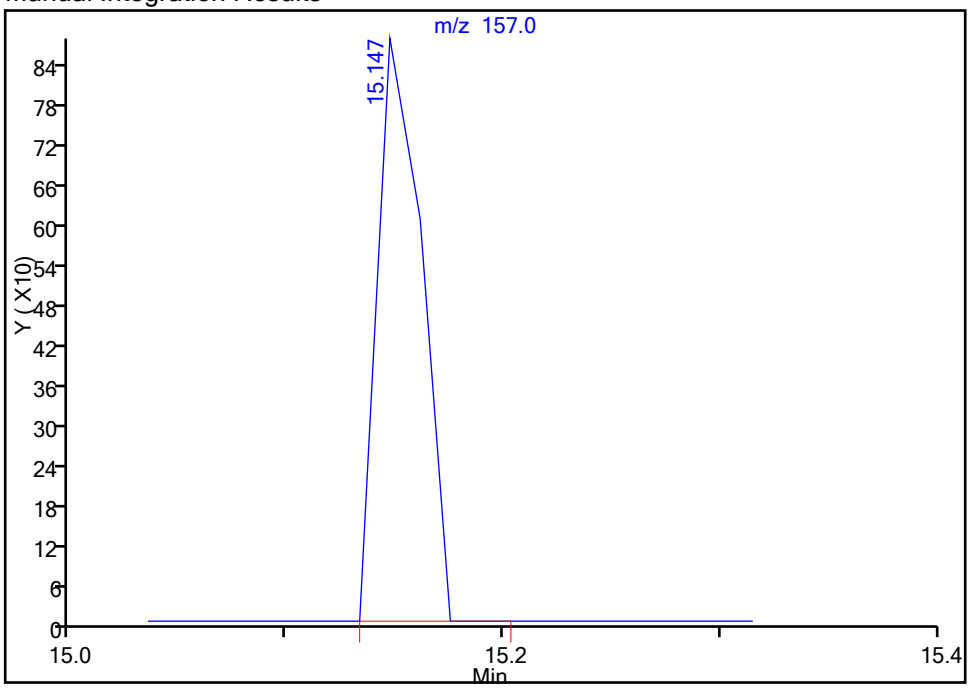
Not Detected
Expected RT: 15.15

Processing Integration Results



Manual Integration Results

RT: 15.15
Area: 1234
Amount: 0.446223
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:11:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica St. Louis

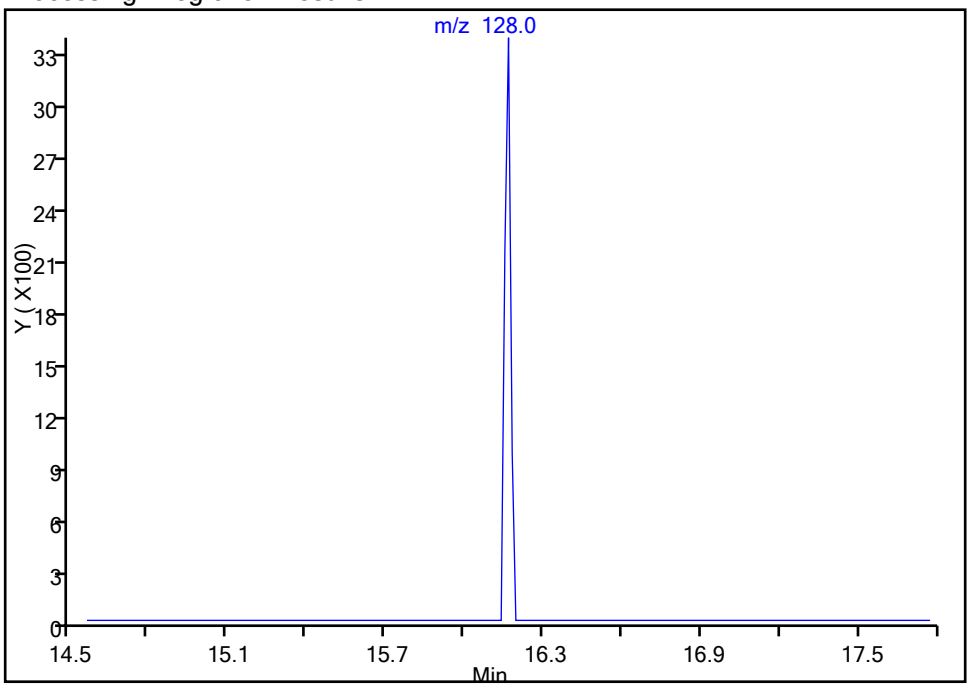
Data File:	\\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D				
Injection Date:	29-Nov-2016 14:17:30	Instrument ID:	VMSL		
Lims ID:	ic				
Client ID:					
Operator ID:	SMCR	ALS Bottle#:	3	Worklist Smp#:	8
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

118 Naphthalene, CAS: 91-20-3

Signal: 1

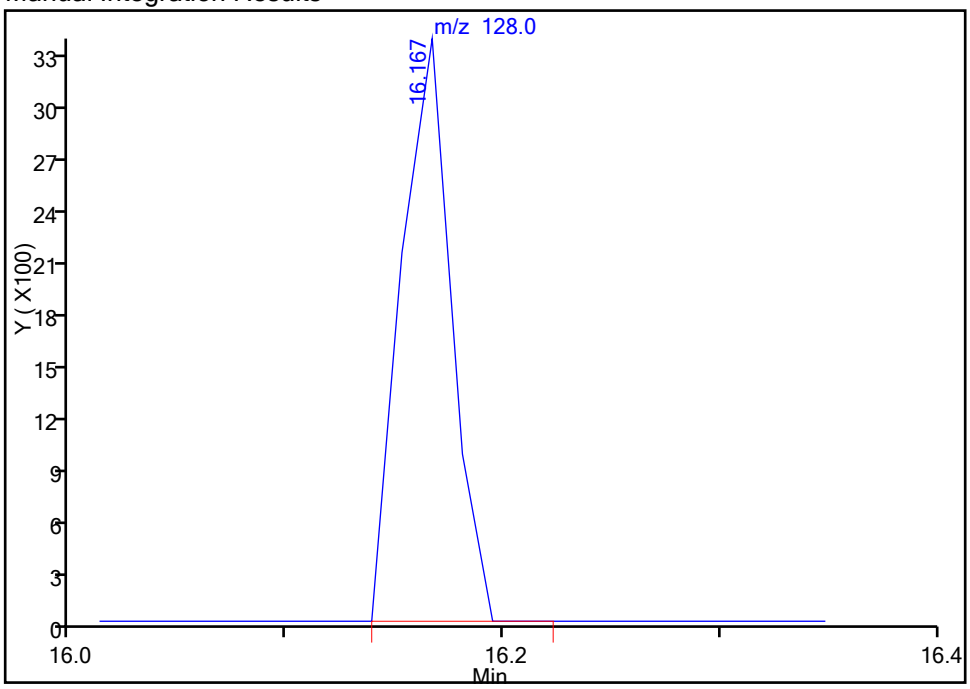
Not Detected
Expected RT: 16.17

Processing Integration Results



Manual Integration Results

RT: 16.17
Area: 5460
Amount: 0.661530
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:11:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

TestAmerica St. Louis

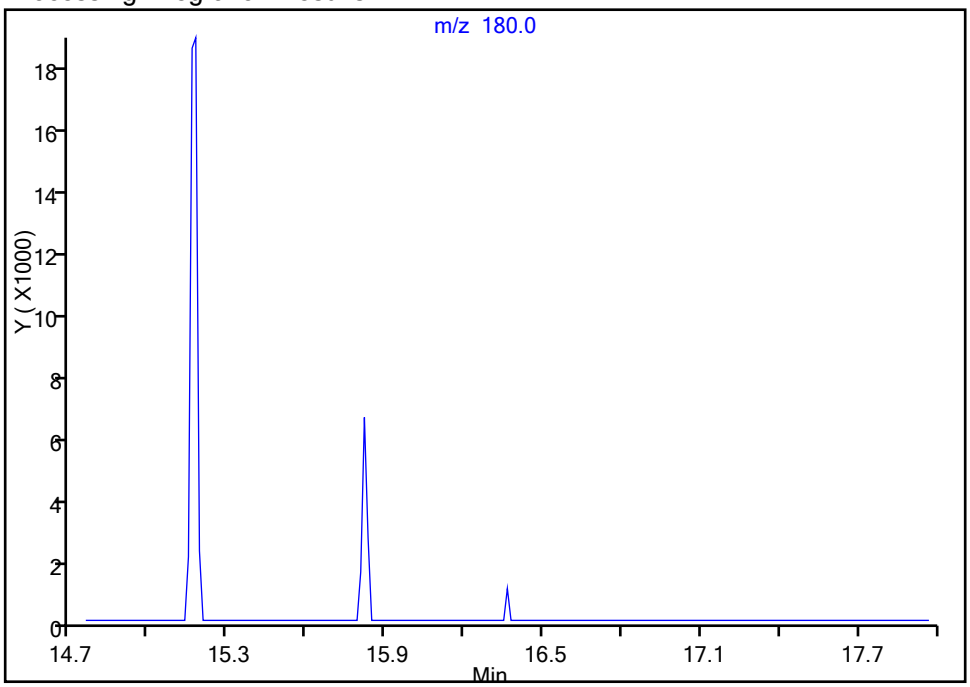
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6941.D
Injection Date: 29-Nov-2016 14:17:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

120 1,2,3-Trichlorobenzene, CAS: 87-61-6

Signal: 1

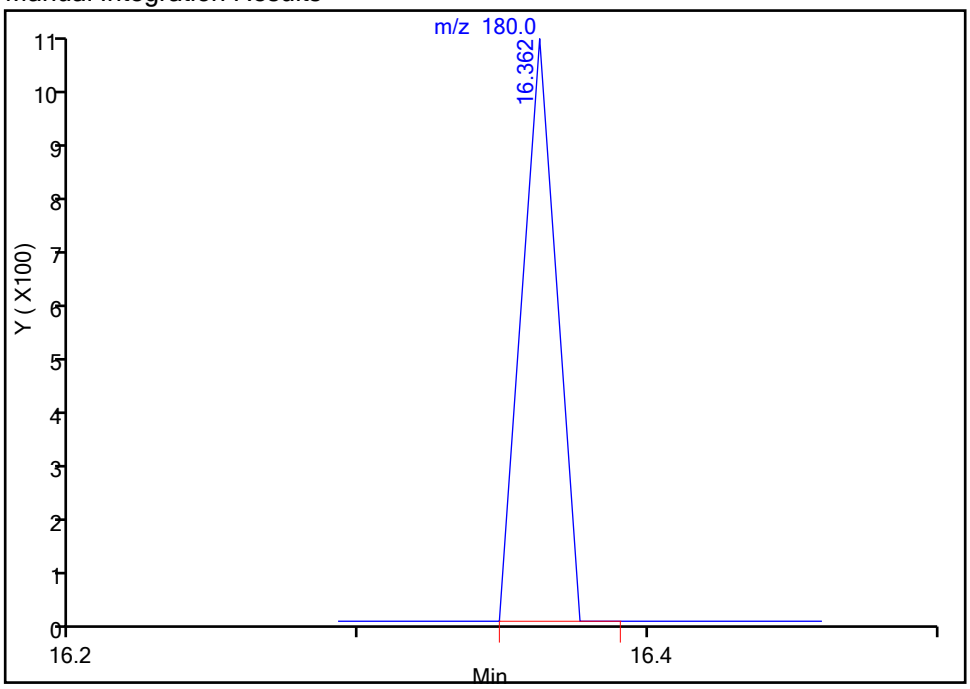
Not Detected
Expected RT: 16.36

Processing Integration Results



Manual Integration Results

RT: 16.36
Area: 856
Amount: 0.559535
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:11:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6942.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 29-Nov-2016 14:43:30 ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:40 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:15:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	100	67109	1.00	1.06	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	99	28223	1.00	1.05	M
3 Chloromethane	50	3.360	3.360	0.000	99	59614	1.00	1.06	
4 Vinyl chloride	62	3.513	3.514	-0.001	98	58935	1.00	1.03	
5 Butadiene	39	3.541	3.542	-0.001	93	62827	1.00	1.05	
6 Bromomethane	94	4.100	4.100	0.000	91	35056	1.00	1.14	
7 Chloroethane	64	4.337	4.324	0.013	98	35555	1.00	1.06	
8 Trichlorofluoromethane	101	4.575	4.561	0.014	99	89698	1.00	1.05	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	96267	1.00	1.05	
10 Ethyl ether	74	5.078	5.078	0.000	89	15625	1.00	1.05	
11 Ethanol	45	5.315	5.315	0.000	97	4798	40.0	33.2	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	98	48901	1.00	1.05	
13 Carbon disulfide	76	5.427	5.427	0.000	100	166194	1.00	1.04	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	92	45343	1.00	1.06	
16 Iodomethane	142	5.594	5.595	-0.001	99	17135	1.00	0.9834	
S 15 1,2-Dichloroethene, Total	96				0			2.11	
17 Acrolein	56	5.860	5.860	0.000	96	10482	5.00	5.28	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	89	60283	1.00	1.06	
19 Isopropyl alcohol	45	6.069	6.069	0.000	95	9467	10.0	12.6	
20 Methylene Chloride	84	6.181	6.181	0.000	92	37319	1.00	1.06	
21 Acetone	43	6.251	6.251	0.000	97	8640	1.00	0.9509	
22 trans-1,2-Dichloroethene	96	6.376	6.377	-0.001	99	51681	1.00	1.06	
23 Methyl acetate	74	6.390	6.391	-0.001	98	9722	5.00	5.04	
24 Hexane	86	6.460	6.460	0.000	93	18190	1.00	1.02	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	88	64301	1.00	1.04	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	78	10897	10.0	10.9	
27 Acetonitrile	41	6.823	6.824	-0.001	98	15983	10.0	10.0	
28 Isopropyl ether	45	6.921	6.921	0.000	92	108423	1.00	1.05	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	85081	1.00	1.03	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	95	83094	1.00	1.07	
31 Acrylonitrile	53	7.172	7.173	-0.001	98	42347	10.0	10.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	85828	1.00	1.03	
33 Vinyl acetate	43	7.354	7.354	0.000	98	48221	1.00	1.06	
34 cis-1,2-Dichloroethene	96	7.689	7.689	0.000	80	48084	1.00	1.05	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	93	78930	1.00	1.03	
37 Chlorobromomethane	128	7.899	7.899	0.000	51	14543	1.00	1.07	
36 Cyclohexane	84	7.899	7.899	0.000	90	94434	1.00	1.06	
38 Chloroform	83	7.955	7.955	0.000	94	77042	1.00	1.05	
39 Ethyl acetate	45	8.038	8.039	-0.001	99	3272	2.00	1.98	
40 Carbon tetrachloride	117	8.108	8.108	0.000	98	74941	1.00	1.02	
41 Tetrahydrofuran	71	8.136	8.122	0.014	48	2732	2.00	2.05	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	95	27736	1.00	0.9680	
43 1,1,1-Trichloroethane	97	8.164	8.178	-0.014	97	87268	1.00	1.04	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	79	8000	1.00	1.12	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	98	77290	1.00	1.06	
44 Isooctane	57	8.360	8.360	0.000	97	224426	1.00	1.05	
46 n-Heptane	43	8.443	8.444	-0.001	90	97753	1.00	1.08	
48 Benzene	78	8.527	8.527	0.000	97	190509	1.00	1.06	
49 Propionitrile	54	8.555	8.555	0.000	90	14991	10.0	10.2	
50 Methacrylonitrile	41	8.569	8.569	0.000	92	95943	10.0	10.7	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	95	68434	1.00	1.03	
52 Isobutyl alcohol	42	8.667	8.667	0.000	93	7483	25.0	26.8	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	91	28841	1.00	1.01	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	38662	1.00	1.05	
* 55 Fluorobenzene	96	8.918	8.919	0.000	99	1650834	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	88	82754	1.00	1.07	
57 Trichloroethene	95	9.072	9.072	0.000	63	53034	1.00	1.05	
59 n-Butanol	56	9.309	9.310	-0.001	87	6028	25.0	23.3	
61 Dibromomethane	93	9.477	9.477	0.000	95	14130	1.00	1.05	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	16421	1.00	0.99	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	89	36171	1.00	1.03	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	45648	1.00	1.04	
64 Methyl methacrylate	69	9.700	9.701	-0.001	93	20197	2.00	1.93	
65 1,4-Dioxane	88	9.784	9.784	0.000	89	2311	20.0	19.4	
66 2-Chloroethyl vinyl ether	63	10.077	10.078	-0.001	95	7198	1.00	1.01	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	94	50955	1.00	1.00	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	153280	1.00	1.01	
69 Toluene	92	10.385	10.385	0.000	98	124949	1.00	1.06	
70 2-Nitropropane	43	10.608	10.608	0.000	99	8904	2.00	2.18	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	94	12195	1.00	1.05	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	74	37677	1.00	0.9849	
73 Tetrachloroethene	164	10.748	10.748	0.000	97	46707	1.00	1.07	
74 Ethyl methacrylate	69	10.832	10.832	0.000	89	20788	1.00	0.9433	
75 1,1,2-Trichloroethane	83	10.901	10.902	-0.001	92	16563	1.00	1.04	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	23484	1.00	1.00	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	37697	1.00	1.04	
78 n-Butyl acetate	43	11.307	11.307	-0.001	97	21619	1.00	1.05	
79 Ethylene Dibromide	107	11.320	11.321	-0.001	99	17468	1.00	1.01	
80 2-Hexanone	43	11.432	11.432	0.000	94	7124	1.00	0.8518	
81 1-Chlorohexane	91	11.698	11.698	0.000	98	76347	1.00	1.03	
* 83 Chlorobenzene-d5	117	11.753	11.754	-0.001	89	1065788	10.0	10.0	
82 Ethylbenzene	91	11.753	11.768	-0.015	93	247107	1.00	1.09	
84 Chlorobenzene	112	11.767	11.782	-0.015	93	119867	1.00	1.07	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131	11.809	11.823	-0.014	95	35547	1.00	1.02	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	93626	1.00	1.06	
88 o-Xylene	106	12.284	12.284	0.000	98	81685	1.00	1.04	
89 Styrene	104	12.340	12.340	0.000	94	115057	1.00	1.00	
90 Bromoform	173	12.410	12.410	0.000	92	11252	1.00	0.9587	
91 Isopropylbenzene	105	12.563	12.564	-0.001	96	248118	1.00	1.05	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	90	50364	1.00	0.9893	
93 N-Propylbenzene	91	12.941	12.955	-0.014	98	284719	1.00	1.05	
94 Bromobenzene	156	12.982	12.983	-0.001	96	42621	1.00	1.02	
95 1,1,2,2-Tetrachloroethane	83	13.010	13.011	-0.001	96	17861	1.00	0.9861	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	190024	1.00	1.03	
97 2-Chlorotoluene	91	13.136	13.136	0.000	95	181167	1.00	1.06	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	6057	1.00	1.04	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	71	5310	1.00	1.06	
100 Cyclohexanone	55	13.248	13.248	0.000	81	3851	10.0	10.7	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	160040	1.00	1.06	
102 tert-Butylbenzene	119	13.429	13.430	-0.001	93	181640	1.00	1.05	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	186767	1.00	1.03	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	277465	1.00	1.05	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	226558	1.00	1.04	
106 1,3-Dichlorobenzene	146	13.862	13.863	-0.001	98	94153	1.00	1.06	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	56	169139	1.00	1.05	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	96	502123	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	94	89791	1.00	1.05	
111 n-Butylbenzene	134	14.128	14.142	-0.014	97	57007	1.00	1.03	
110 Benzyl chloride	126	14.170	14.170	0.000	1	5874	1.00	0.8770	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	96	73596	1.00	1.04	
113 n-Nonyl Aldehyde	57	15.077	15.078	-0.001	86	6986	1.00	1.70	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	1	2498	1.00	0.8987	M
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	97	63032	1.00	1.04	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	38146	1.00	1.08	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	93	15502	1.00	1.05	
118 Naphthalene	128	16.167	16.167	0.000	93	8640	1.00	1.04	
120 1,2,3-Trichlorobenzene	180	16.362	16.363	0.000	9	2248	1.00	1.13	M
S 119 Xylenes, Total	106				0			2.10	
S 130 Trihalomethanes, Total	1				0			4.04	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 Surr 25_00067	Amount Added:	1.00	Units: uL	
8260 NewWkMix_00194	Amount Added:	1.00	Units: uL	
I.S. Working_00141	Amount Added:	10.00	Units: uL	Run Reagent

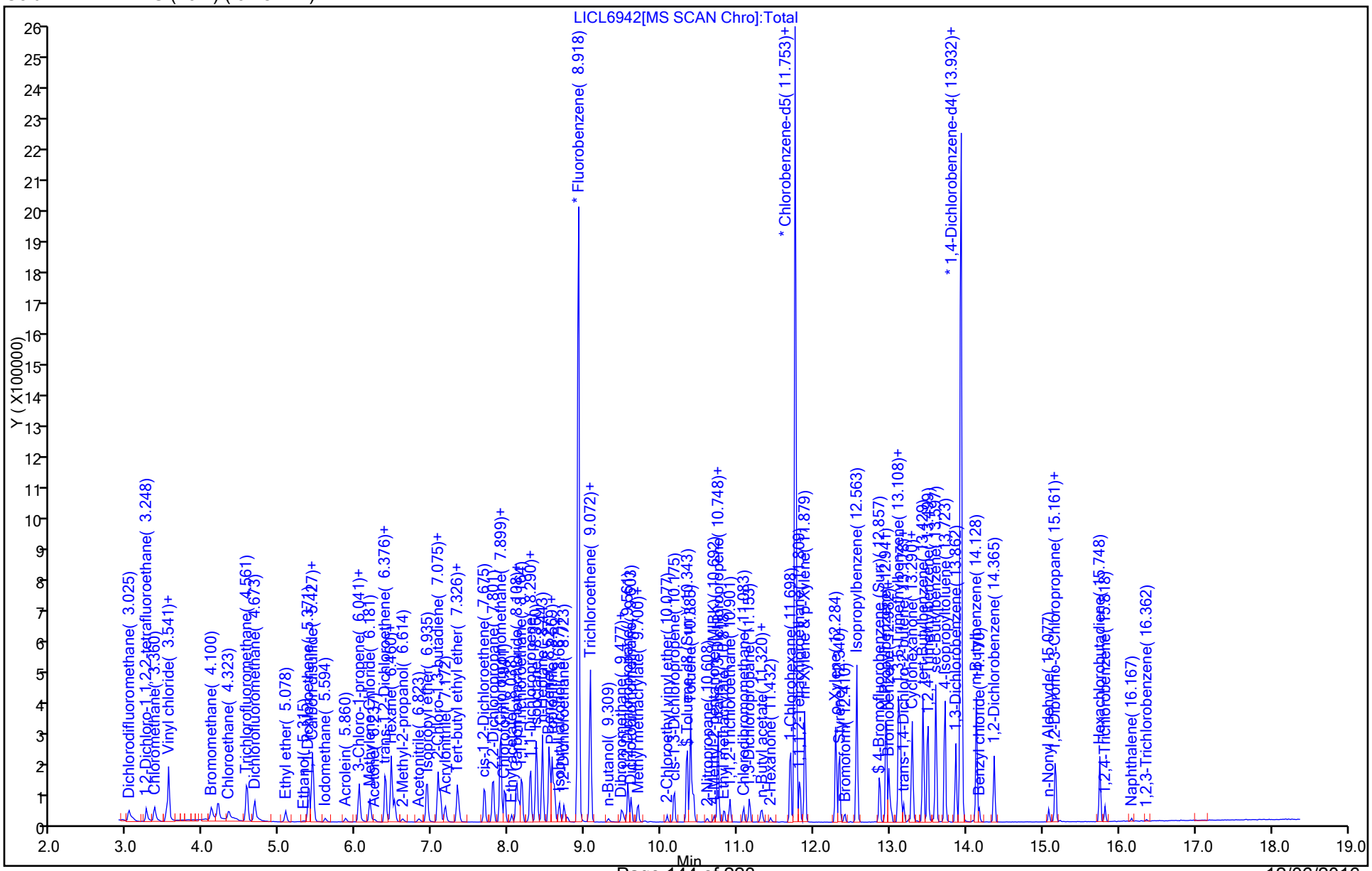
Report Date: 01-Dec-2016 13:45:41 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6942.D

Injection Date:	29-Nov-2016 14:43:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis

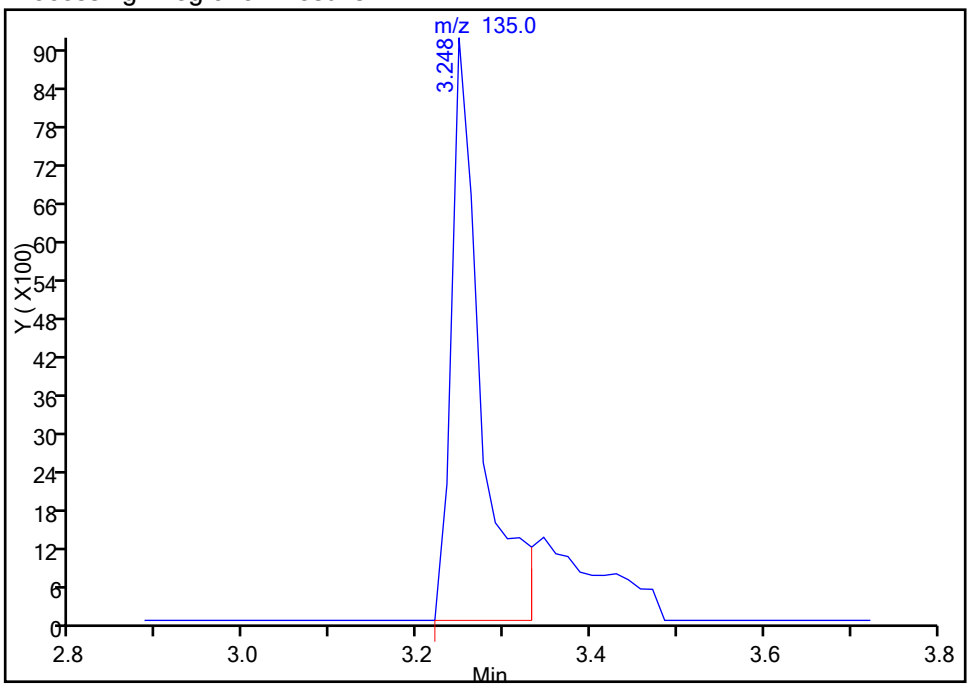
Data File:	\\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6942.D				
Injection Date:	29-Nov-2016 14:43:30	Instrument ID:	VMSL		
Lims ID:	ic				
Client ID:					
Operator ID:	SMCR	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

2 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

Signal: 1

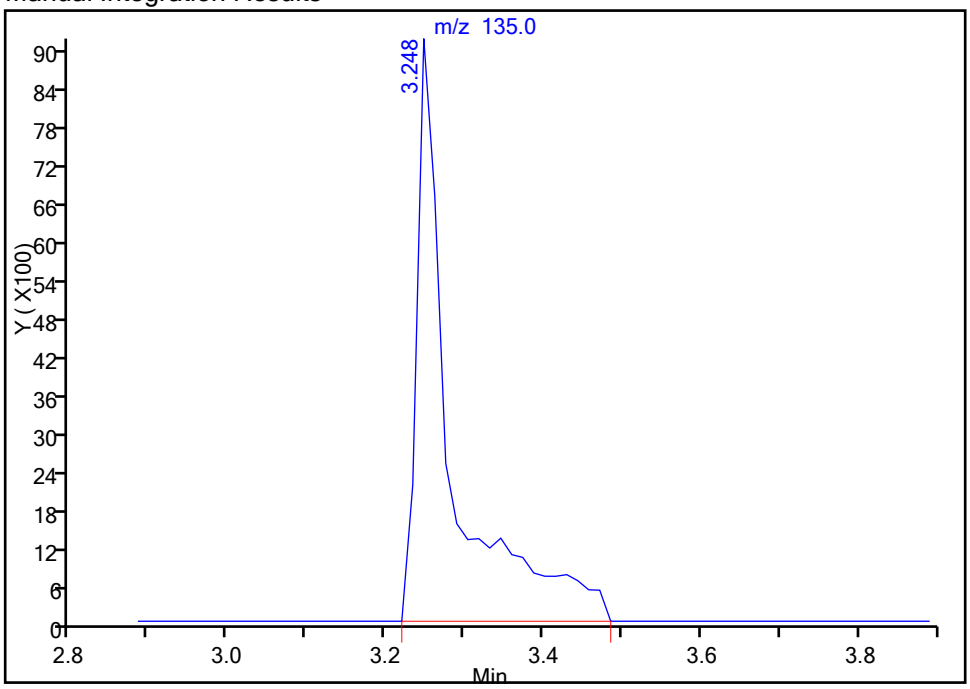
Processing Integration Results

RT: 3.25
Area: 21606
Amount: 0.953803
Amount Units: ug/l



Manual Integration Results

RT: 3.25
Area: 28223
Amount: 1.051753
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:15:52
Audit Action: Manually Integrated Audit Reason: Peak Tail

TestAmerica St. Louis

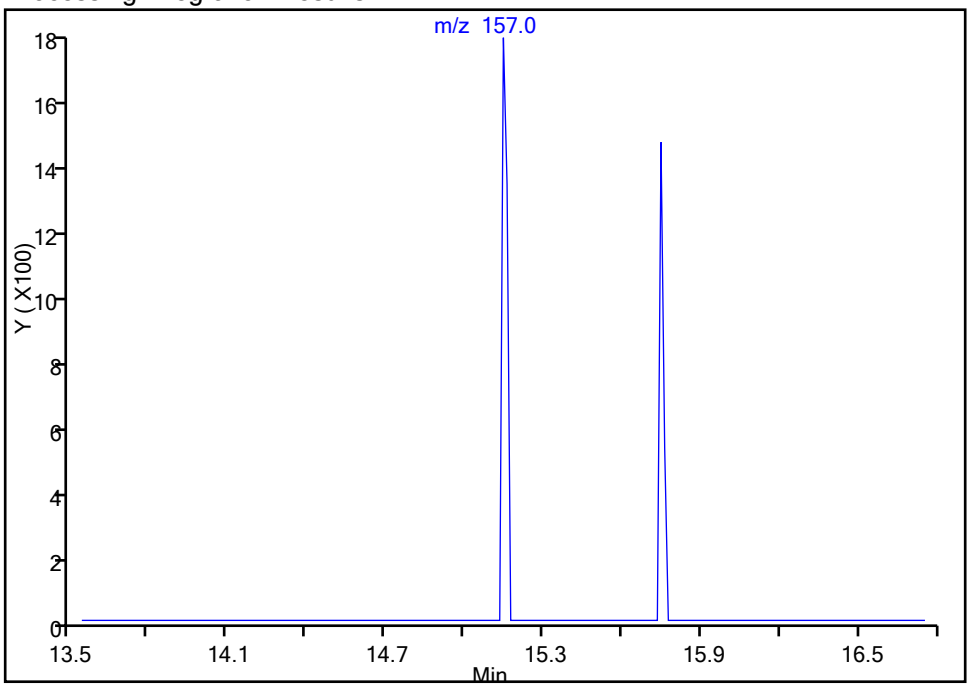
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6942.D
Injection Date: 29-Nov-2016 14:43:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

115 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

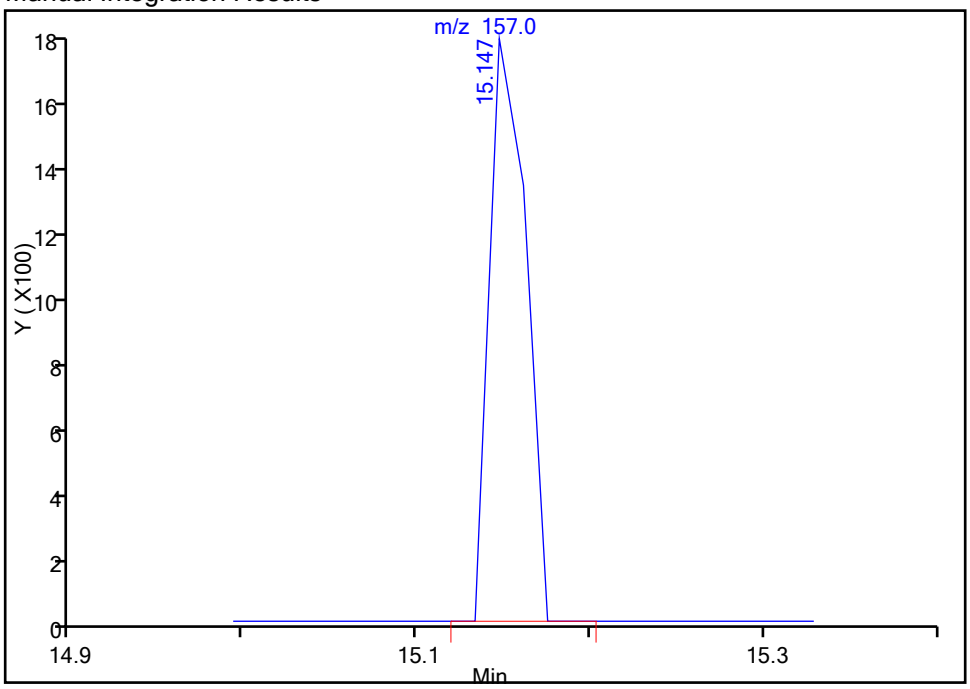
Not Detected
Expected RT: 15.15

Processing Integration Results



Manual Integration Results

RT: 15.15
Area: 2498
Amount: 0.898668
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:15:52
Audit Action: Assigned Compound ID Audit Reason: Missed Peak

TestAmerica St. Louis

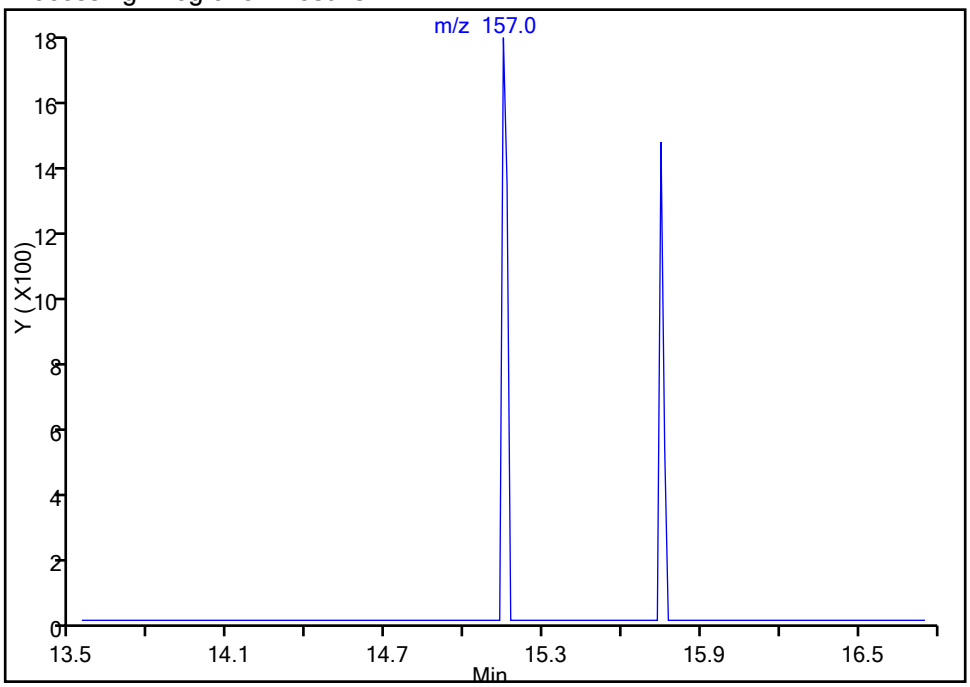
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6942.D
Injection Date: 29-Nov-2016 14:43:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

115 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

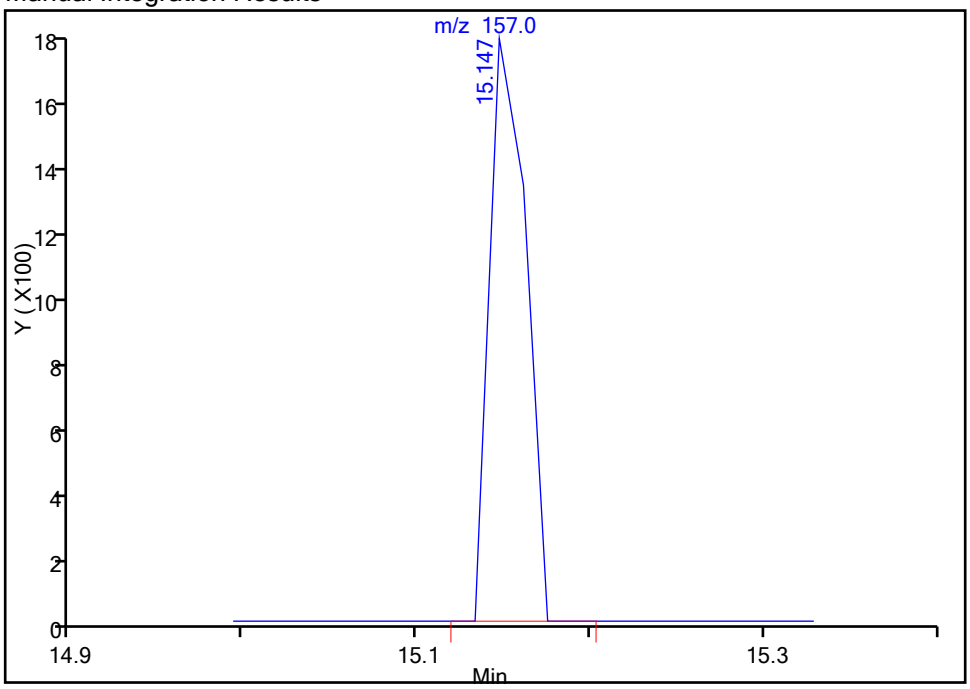
Not Detected
Expected RT: 15.15

Processing Integration Results



Manual Integration Results

RT: 15.15
Area: 2498
Amount: 0.898668
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:15:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica St. Louis

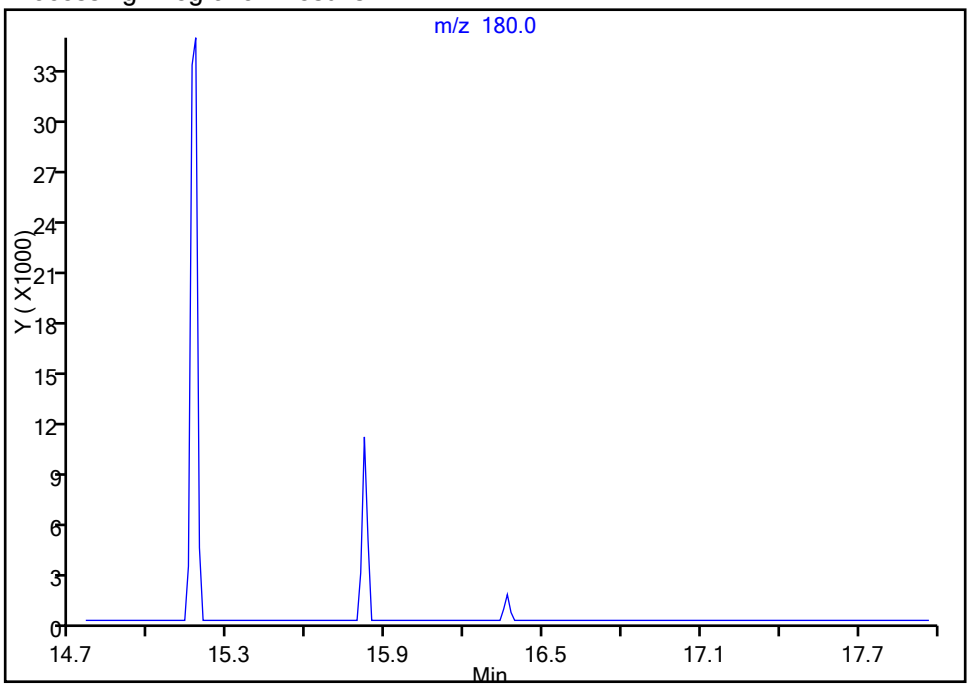
Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6942.D
Injection Date: 29-Nov-2016 14:43:30 Instrument ID: VMSL
Lims ID: ic
Client ID:
Operator ID: SMCR ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Column: RTX-VMS (40m) (0.18 mm) Detector MS SCAN

120 1,2,3-Trichlorobenzene, CAS: 87-61-6

Signal: 1

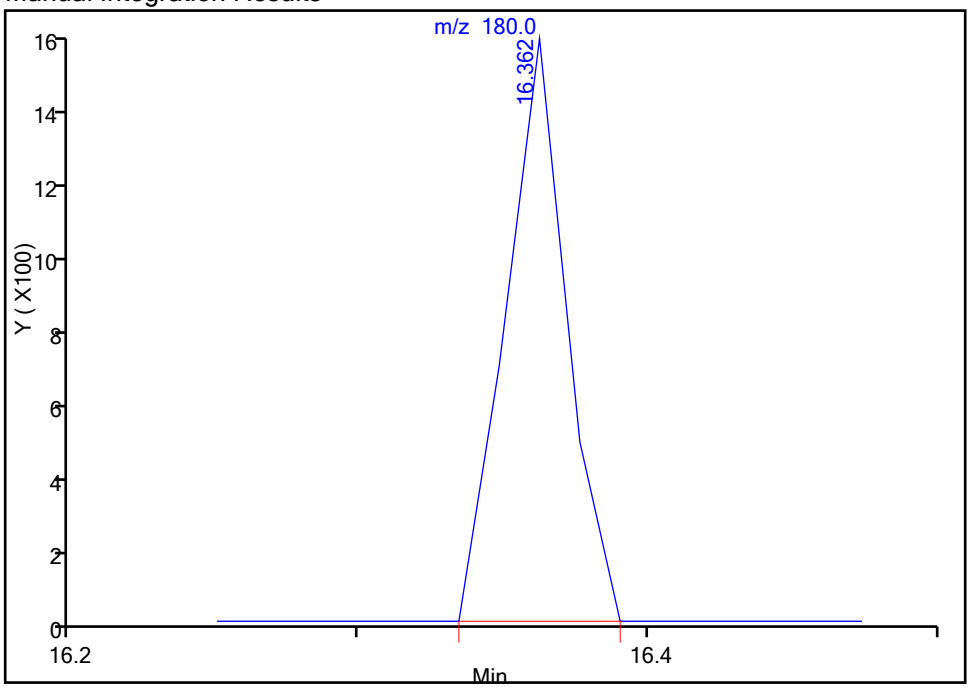
Not Detected
Expected RT: 16.36

Processing Integration Results



Manual Integration Results

RT: 16.36
Area: 2248
Amount: 1.132222
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:15:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6943.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 29-Nov-2016 15:08:30 ALS Bottle#: 5 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:43 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:18:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	100	123970	2.00	1.95	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	99	53133	2.00	1.98	
3 Chloromethane	50	3.360	3.360	0.000	99	110623	2.00	1.97	
4 Vinyl chloride	62	3.514	3.514	0.000	98	110728	2.00	1.93	
5 Butadiene	39	3.542	3.542	0.000	95	115591	2.00	1.93	
6 Bromomethane	94	4.100	4.100	0.000	91	61732	2.00	2.00	
7 Chloroethane	64	4.338	4.324	0.014	99	65195	2.00	1.93	
8 Trichlorofluoromethane	101	4.575	4.561	0.014	99	167397	2.00	1.95	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	177897	2.00	1.94	
10 Ethyl ether	74	5.078	5.078	0.000	90	29359	2.00	1.97	
11 Ethanol	45	5.315	5.315	0.000	96	9627	80.0	80.5	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	97	90649	2.00	1.93	
13 Carbon disulfide	76	5.427	5.427	0.000	100	308534	2.00	1.93	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	91	81928	2.00	1.91	
16 Iodomethane	142	5.595	5.595	0.000	100	38652	2.00	1.61	
S 15 1,2-Dichloroethene, Total	96				0			3.84	
17 Acrolein	56	5.860	5.860	0.000	98	18318	10.0	9.21	
18 3-Chloro-1-propene	39	6.042	6.041	0.001	90	111916	2.00	1.96	
19 Isopropyl alcohol	45	6.069	6.069	0.000	96	16357	20.0	21.7	
20 Methylene Chloride	84	6.181	6.181	0.000	91	68547	2.00	1.95	
21 Acetone	43	6.251	6.251	0.000	98	12401	2.00	2.19	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	93336	2.00	1.91	
23 Methyl acetate	74	6.391	6.391	0.000	99	18956	10.0	9.82	
24 Hexane	86	6.460	6.460	0.000	94	33935	2.00	1.91	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	88	120004	2.00	1.93	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	87	19139	20.0	19.1	
27 Acetonitrile	41	6.824	6.824	0.000	98	28246	20.0	20.4	
28 Isopropyl ether	45	6.935	6.921	0.014	92	204943	2.00	1.98	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	158850	2.00	1.93	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	95	149580	2.00	1.92	
31 Acrylonitrile	53	7.173	7.173	0.000	99	80291	20.0	19.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	162009	2.00	1.94	
33 Vinyl acetate	43	7.354	7.354	0.000	97	87509	2.00	1.93	
34 cis-1,2-Dichloroethene	96	7.690	7.689	0.001	80	88630	2.00	1.93	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	92	146608	2.00	1.90	
37 Chlorobromomethane	128	7.899	7.899	0.000	52	26659	2.00	1.95	
36 Cyclohexane	84	7.899	7.899	0.000	90	170837	2.00	1.92	
38 Chloroform	83	7.955	7.955	0.000	93	140682	2.00	1.91	
39 Ethyl acetate	45	8.039	8.039	0.000	99	6510	4.00	3.93	
40 Carbon tetrachloride	117	8.109	8.108	0.000	98	138690	2.00	1.88	
41 Tetrahydrofuran	71	8.122	8.122	0.000	79	5047	4.00	3.79	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	95	55062	2.00	1.92	
43 1,1,1-Trichloroethane	97	8.178	8.178	0.000	98	161610	2.00	1.92	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	95	13057	2.00	2.18	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	95	140427	2.00	1.92	
44 Isooctane	57	8.360	8.360	0.000	97	414838	2.00	1.94	
46 n-Heptane	43	8.444	8.444	0.000	91	180248	2.00	1.98	
48 Benzene	78	8.527	8.527	0.000	97	349131	2.00	1.93	
49 Propionitrile	54	8.555	8.555	0.000	96	29590	20.0	20.1	
50 Methacrylonitrile	41	8.569	8.569	0.000	92	180290	20.0	20.1	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	96	128016	2.00	1.92	
52 Isobutyl alcohol	42	8.667	8.667	0.000	91	13470	50.0	48.1	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	91	57311	2.00	2.01	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	73333	2.00	1.99	
* 55 Fluorobenzene	96	8.919	8.919	0.001	99	1653569	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	89	153636	2.00	1.98	
57 Trichloroethene	95	9.072	9.072	0.000	64	98121	2.00	1.95	
59 n-Butanol	56	9.310	9.310	0.000	92	12345	50.0	47.6	
61 Dibromomethane	93	9.477	9.477	0.000	95	26333	2.00	1.95	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	31401	2.00	1.90	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	68606	2.00	1.95	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	83217	2.00	1.90	
64 Methyl methacrylate	69	9.701	9.701	0.000	90	40673	4.00	3.89	
65 1,4-Dioxane	88	9.784	9.784	0.000	90	4648	40.0	38.9	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	94	14225	2.00	2.00	
67 cis-1,3-Dichloropropene	75	10.176	10.175	0.001	94	98035	2.00	1.91	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	299600	2.00	1.95	
69 Toluene	92	10.385	10.385	0.000	99	231034	2.00	1.93	
70 2-Nitropropane	43	10.608	10.608	0.000	99	15504	4.00	3.74	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	95	22990	2.00	1.95	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	75	73794	2.00	1.90	
73 Tetrachloroethene	164	10.748	10.748	0.000	97	86768	2.00	1.95	
74 Ethyl methacrylate	69	10.832	10.832	0.000	89	41553	2.00	1.86	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	31348	2.00	1.95	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	44925	2.00	1.88	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	94	70879	2.00	1.92	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	36099	2.00	1.73	
79 Ethylene Dibromide	107	11.321	11.321	0.000	98	33869	2.00	1.93	
80 2-Hexanone	43	11.432	11.432	0.000	94	13140	2.00	1.60	
81 1-Chlorohexane	91	11.698	11.698	0.000	98	144056	2.00	1.91	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	88	1082019	10.0	10.0	
82 Ethylbenzene	91	11.754	11.768	-0.014	96	441779	2.00	1.92	
84 Chlorobenzene	112	11.768	11.782	-0.014	94	221535	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131	11.824	11.823	0.001	93	67115	2.00	1.90	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	174280	2.00	1.94	
88 o-Xylene	106	12.284	12.284	0.000	98	152347	2.00	1.92	
89 Styrene	104	12.340	12.340	0.000	94	218239	2.00	1.88	
90 Bromoform	173	12.410	12.410	0.000	95	21806	2.00	1.84	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	457578	2.00	1.92	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	91	97706	2.00	1.90	
93 N-Propylbenzene	91	12.955	12.955	0.000	98	526882	2.00	1.93	
94 Bromobenzene	156	12.983	12.983	0.000	96	80747	2.00	1.91	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	97	34810	2.00	1.91	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	94	355729	2.00	1.92	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	330551	2.00	1.92	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	11749	2.00	2.00	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	79	9917	2.00	1.97	
100 Cyclohexanone	55	13.248	13.248	0.000	86	6303	20.0	17.3	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	289932	2.00	1.91	
102 tert-Butylbenzene	119	13.430	13.430	0.000	92	333093	2.00	1.91	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	348497	2.00	1.92	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	511453	2.00	1.93	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	423510	2.00	1.94	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	98	172147	2.00	1.92	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	65	312815	2.00	1.92	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	95	506211	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	167797	2.00	1.95	
111 n-Butylbenzene	134	14.128	14.142	-0.014	98	106767	2.00	1.91	
110 Benzyl chloride	126	14.170	14.170	0.000	1	11523	2.00	1.71	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	97	140119	2.00	1.97	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	87	12783	2.00	2.19	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	80	5152	2.00	1.84	
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	97	113006	2.00	1.85	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	66894	2.00	1.88	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	24993	2.00	1.68	
118 Naphthalene	128	16.167	16.167	0.000	95	12986	2.00	1.55	
120 1,2,3-Trichlorobenzene	180	16.363	16.363	0.001	25	3598	2.00	1.68	
S 119 Xylenes, Total	106				0			3.86	
S 130 Trihalomethanes, Total	1				0			7.52	

Reagents:

8260 Surr 25_00067	Amount Added: 2.00	Units: uL	
8260 NewWkMix_00194	Amount Added: 2.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

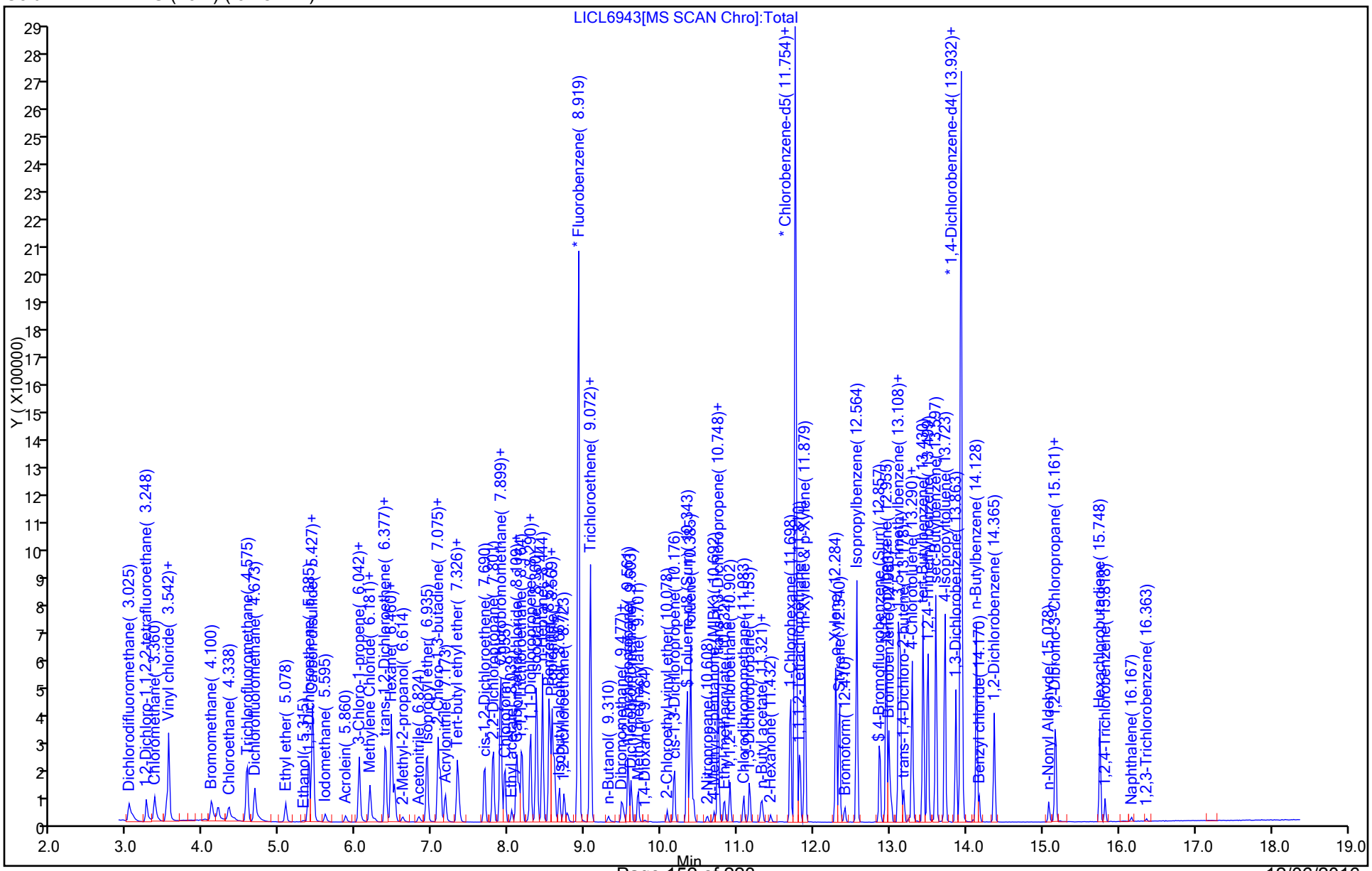
Report Date: 01-Dec-2016 13:45:44 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6943.D

Injection Date:	29-Nov-2016 15:08:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6944.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 29-Nov-2016 15:33:30 ALS Bottle#: 6 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:46 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:18:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	99	254890	4.00	3.99	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	98	113110	4.00	4.18	
3 Chloromethane	50	3.360	3.360	0.000	99	217381	4.00	3.85	
4 Vinyl chloride	62	3.513	3.514	-0.001	98	223645	4.00	3.88	
5 Butadiene	39	3.541	3.542	-0.001	95	234144	4.00	3.88	
6 Bromomethane	94	4.100	4.100	0.000	91	115309	4.00	3.72	
7 Chloroethane	64	4.337	4.324	0.013	99	132235	4.00	3.90	
8 Trichlorofluoromethane	101	4.575	4.561	0.014	98	345161	4.00	4.00	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	357331	4.00	3.88	
10 Ethyl ether	74	5.078	5.078	0.000	91	56907	4.00	3.80	
11 Ethanol	45	5.315	5.315	0.000	100	17161	160.0	153.6	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	99	182307	4.00	3.87	
13 Carbon disulfide	76	5.427	5.427	0.000	100	619828	4.00	3.85	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	91	171340	4.00	3.96	
16 Iodomethane	142	5.594	5.595	-0.001	99	98954	4.00	3.35	
S 15 1,2-Dichloroethene, Total	96				0			7.71	
17 Acrolein	56	5.860	5.860	0.000	99	37729	20.0	18.9	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	89	223675	4.00	3.90	
19 Isopropyl alcohol	45	6.069	6.069	0.000	97	26788	40.0	35.4	
20 Methylene Chloride	84	6.181	6.181	0.000	92	135891	4.00	3.84	
21 Acetone	43	6.251	6.251	0.000	99	18170	4.00	4.07	
22 trans-1,2-Dichloroethene	96	6.377	6.377	-0.001	99	189790	4.00	3.86	
23 Methyl acetate	74	6.390	6.391	-0.001	98	36819	20.0	19.0	
24 Hexane	86	6.460	6.460	0.000	94	69845	4.00	3.90	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	88	238112	4.00	3.82	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	94	36181	40.0	35.9	
27 Acetonitrile	41	6.823	6.824	-0.001	99	50107	40.0	38.7	
28 Isopropyl ether	45	6.921	6.921	0.000	93	401341	4.00	3.86	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	326405	4.00	3.94	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	97	307930	4.00	3.94	
31 Acrylonitrile	53	7.173	7.173	0.000	98	155855	40.0	38.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	320344	4.00	3.82	
33 Vinyl acetate	43	7.354	7.354	0.000	97	174711	4.00	3.83	
34 cis-1,2-Dichloroethene	96	7.689	7.689	0.000	79	177641	4.00	3.84	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	92	306380	4.00	3.96	
37 Chlorobromomethane	128	7.899	7.899	0.000	50	52675	4.00	3.84	
36 Cyclohexane	84	7.899	7.899	0.000	90	349302	4.00	3.90	
38 Chloroform	83	7.955	7.955	0.000	94	287547	4.00	3.87	
39 Ethyl acetate	45	8.038	8.039	-0.001	99	11890	8.00	7.14	
40 Carbon tetrachloride	117	8.108	8.108	0.000	97	292200	4.00	3.93	
41 Tetrahydrofuran	71	8.122	8.122	0.000	87	10126	8.00	7.56	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	95	112479	4.00	3.90	
43 1,1,1-Trichloroethane	97	8.178	8.178	0.000	98	332079	4.00	3.92	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	96	22620	4.00	4.16	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	95	283011	4.00	3.84	
44 Isooctane	57	8.360	8.360	0.000	97	856180	4.00	3.99	
46 n-Heptane	43	8.444	8.444	0.000	91	353998	4.00	3.87	
48 Benzene	78	8.527	8.527	0.000	97	699145	4.00	3.84	
49 Propionitrile	54	8.555	8.555	0.000	94	57326	40.0	38.8	
50 Methacrylonitrile	41	8.569	8.569	0.000	92	345429	40.0	38.4	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	96	250571	4.00	3.74	
52 Isobutyl alcohol	42	8.667	8.667	0.000	93	25196	100.0	89.5	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	92	112977	4.00	3.94	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	142992	4.00	3.86	
* 55 Fluorobenzene	96	8.918	8.919	0.000	99	1662886	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	88	301486	4.00	3.87	
57 Trichloroethene	95	9.072	9.072	0.000	62	194719	4.00	3.85	
59 n-Butanol	56	9.309	9.310	-0.001	92	24075	100.0	92.2	
61 Dibromomethane	93	9.477	9.477	0.000	96	52743	4.00	3.88	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	62061	4.00	3.73	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	90	135521	4.00	3.83	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	166537	4.00	3.77	
64 Methyl methacrylate	69	9.700	9.701	-0.001	91	78876	8.00	7.50	
65 1,4-Dioxane	88	9.784	9.784	0.000	91	9031	80.0	75.2	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	95	28218	4.00	3.94	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	94	197176	4.00	3.83	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	593583	4.00	3.94	
69 Toluene	92	10.385	10.385	0.000	98	448180	4.00	3.81	
70 2-Nitropropane	43	10.608	10.608	0.000	99	29329	8.00	7.22	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	95	43080	4.00	3.73	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	77	146802	4.00	3.85	
73 Tetrachloroethene	164	10.748	10.748	0.000	99	162609	4.00	3.72	
74 Ethyl methacrylate	69	10.832	10.832	0.000	89	83525	4.00	3.80	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	93	60898	4.00	3.85	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	89885	4.00	3.82	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	94	139130	4.00	3.84	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	74962	4.00	3.65	
79 Ethylene Dibromide	107	11.321	11.321	0.000	98	65968	4.00	3.83	
80 2-Hexanone	43	11.432	11.432	0.000	94	30242	4.00	3.84	
81 1-Chlorohexane	91	11.698	11.698	0.000	97	264287	4.00	3.58	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	88	1062000	10.0	10.0	
82 Ethylbenzene	91	11.754	11.768	-0.014	95	830999	4.00	3.68	
84 Chlorobenzene	112	11.767	11.782	-0.015	95	422077	4.00	3.80	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131	11.823	11.823	0.000	94	132574	4.00	3.82	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	324753	4.00	3.68	
88 o-Xylene	106	12.284	12.284	0.000	98	291221	4.00	3.74	
89 Styrene	104	12.340	12.340	0.000	94	432844	4.00	3.79	
90 Bromoform	173	12.410	12.410	0.000	97	43056	4.00	3.71	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	839271	4.00	3.58	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	91	191906	4.00	3.81	
93 N-Propylbenzene	91	12.955	12.955	0.000	98	940266	4.00	3.51	
94 Bromobenzene	156	12.983	12.983	0.000	96	156405	4.00	3.77	
95 1,1,2,2-Tetrachloroethane	83	13.010	13.011	-0.001	97	66805	4.00	3.73	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	655268	4.00	3.60	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	611756	4.00	3.62	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	87	21705	4.00	3.77	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	82	18785	4.00	3.80	
100 Cyclohexanone	55	13.248	13.248	0.000	86	11424	40.0	32.0	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	540729	4.00	3.63	
102 tert-Butylbenzene	119	13.429	13.430	-0.001	92	600673	4.00	3.51	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	639521	4.00	3.58	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	894678	4.00	3.44	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	736491	4.00	3.43	
106 1,3-Dichlorobenzene	146	13.862	13.863	-0.001	98	322070	4.00	3.67	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	94	586477	4.00	3.66	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	95	496632	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	94	311133	4.00	3.69	
111 n-Butylbenzene	134	14.128	14.142	-0.014	98	180214	4.00	3.28	
110 Benzyl chloride	126	14.170	14.170	0.000	68	24039	4.00	3.63	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	96	259177	4.00	3.71	
113 n-Nonyl Aldehyde	57	15.077	15.078	-0.001	87	29068	4.00	3.65	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	83	10986	4.00	4.00	
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	97	219531	4.00	3.67	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	97	116970	4.00	3.34	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	55754	4.00	3.82	
118 Naphthalene	128	16.167	16.167	0.000	97	30321	4.00	3.70	
120 1,2,3-Trichlorobenzene	180	16.362	16.363	0.000	93	8129	4.00	3.60	
S 119 Xylenes, Total	106				0			7.41	
S 130 Trihalomethanes, Total	1				0			15.2	

Reagents:

8260 Surr 25_00067	Amount Added: 4.00	Units: uL	
8260 NewWkMix_00194	Amount Added: 4.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

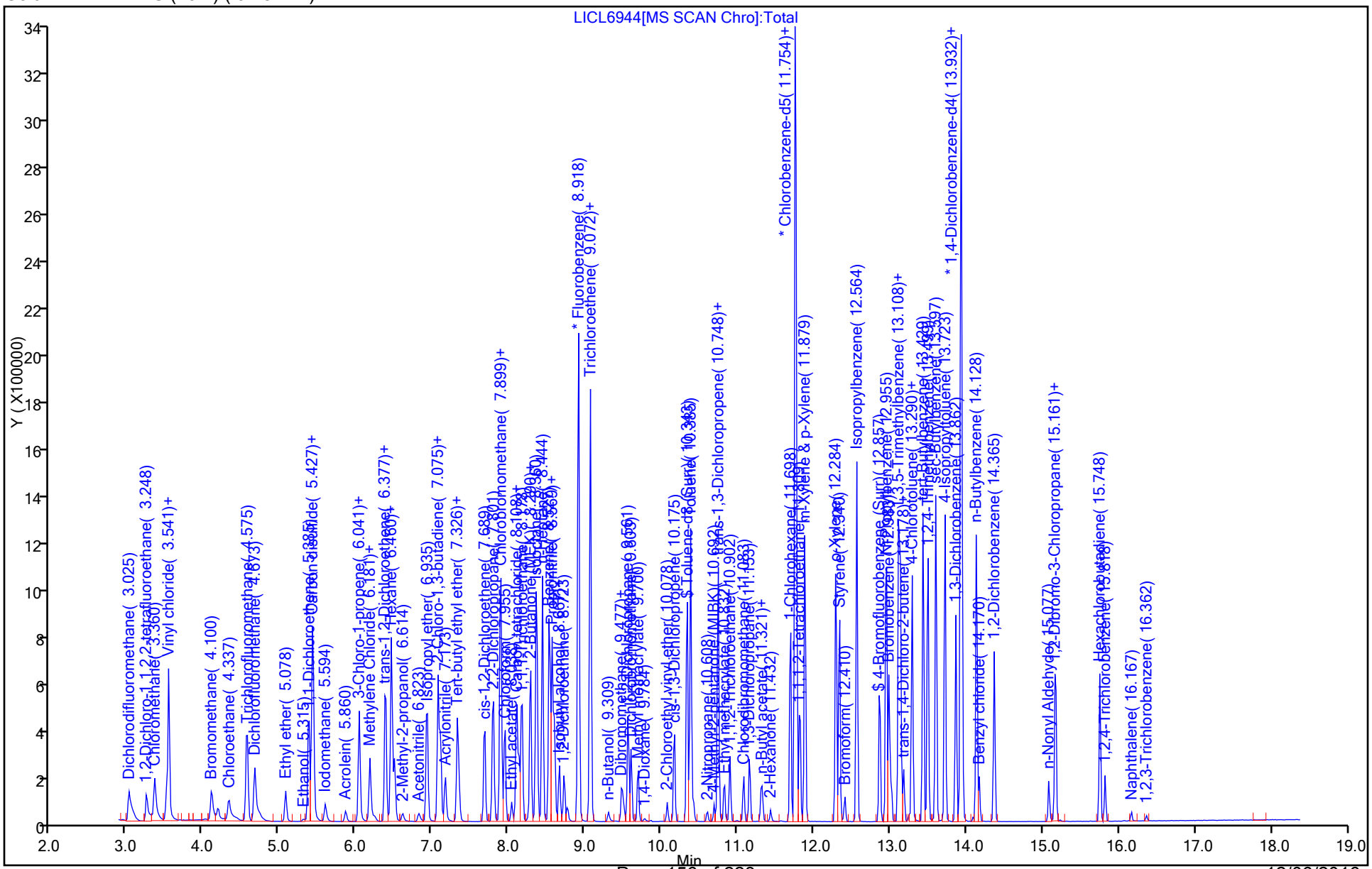
Report Date: 01-Dec-2016 13:45:47 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6944.D

Injection Date:	29-Nov-2016 15:33:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6945.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 29-Nov-2016 15:58:30 ALS Bottle#: 7 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 10
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:50 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 01-Dec-2016 13:43:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	100	629263	10.0	9.80	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	99	277374	10.0	10.2	
3 Chloromethane	50	3.360	3.360	0.000	100	541480	10.0	9.54	
4 Vinyl chloride	62	3.514	3.514	0.000	99	559685	10.0	9.67	
5 Butadiene	39	3.542	3.542	0.000	94	576413	10.0	9.52	
6 Bromomethane	94	4.100	4.100	0.000	91	270311	10.0	8.69	
7 Chloroethane	64	4.324	4.324	0.000	99	327593	10.0	9.60	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	99	843624	10.0	9.72	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	889057	10.0	9.60	
10 Ethyl ether	74	5.078	5.078	0.000	90	147524	10.0	9.79	
11 Ethanol	45	5.315	5.315	0.000	99	41934	400.0	393.4	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	97	460245	10.0	9.72	
13 Carbon disulfide	76	5.427	5.427	0.000	100	1589801	10.0	9.83	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	91	420737	10.0	9.69	
16 Iodomethane	142	5.595	5.595	0.000	100	310455	10.0	9.44	
17 Acrolein	56	5.860	5.860	0.000	99	100549	50.0	50.0	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	565192	10.0	9.82	
19 Isopropyl alcohol	45	6.069	6.069	0.000	98	65470	100.0	86.1	
20 Methylene Chloride	84	6.181	6.181	0.000	90	343965	10.0	9.66	
21 Acetone	43	6.251	6.251	0.000	99	35983	10.0	9.87	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	479828	10.0	9.72	
23 Methyl acetate	74	6.391	6.391	0.000	98	95220	50.0	48.8	
24 Hexane	86	6.460	6.460	0.000	94	176188	10.0	9.79	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	89	614935	10.0	9.81	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	96	98262	100.0	96.9	
27 Acetonitrile	41	6.824	6.824	0.000	99	121002	100.0	97.9	
28 Isopropyl ether	45	6.921	6.921	0.000	93	1021822	10.0	9.77	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	92	830633	10.0	9.98	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	97	761175	10.0	9.69	
31 Acrylonitrile	53	7.173	7.173	0.000	99	401307	100.0	98.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	827152	10.0	9.82	
33 Vinyl acetate	43	7.354	7.354	0.000	97	441190	10.0	9.61	
34 cis-1,2-Dichloroethene	96	7.689	7.689	0.000	79	449812	10.0	9.68	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	92	759282	10.0	9.76	
37 Chlorobromomethane	128	7.899	7.899	0.000	77	133205	10.0	9.65	
36 Cyclohexane	84	7.899	7.899	0.000	89	872803	10.0	9.71	
38 Chloroform	83	7.955	7.955	0.000	94	735921	10.0	9.86	
39 Ethyl acetate	45	8.039	8.039	0.000	99	33465	20.0	20.0	
40 Carbon tetrachloride	117	8.108	8.108	0.000	97	745509	10.0	9.99	
41 Tetrahydrofuran	71	8.122	8.122	0.000	87	26407	20.0	19.6	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	299945	10.0	10.3	
43 1,1,1-Trichloroethane	97	8.178	8.178	0.000	98	840496	10.0	9.87	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	100	49331	10.0	9.68	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	96	724338	10.0	9.79	
44 Isooctane	57	8.360	8.360	0.000	97	2110514	10.0	9.78	
46 n-Heptane	43	8.444	8.444	0.000	90	905550	10.0	9.84	
48 Benzene	78	8.527	8.527	0.000	97	1783416	10.0	9.76	
49 Propionitrile	54	8.555	8.555	0.000	94	145758	100.0	98.1	
50 Methacrylonitrile	41	8.569	8.569	0.000	91	871732	100.0	96.4	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	97	658974	10.0	9.78	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	66323	250.0	234.5	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	90	288086	10.0	9.99	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	366566	10.0	9.84	
* 55 Fluorobenzene	96	8.919	8.919	0.000	99	1671234	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	88	763762	10.0	9.76	
57 Trichloroethene	95	9.072	9.072	0.000	64	497479	10.0	9.78	
59 n-Butanol	56	9.310	9.310	0.000	91	66701	250.0	254.3	
61 Dibromomethane	93	9.477	9.477	0.000	96	135531	10.0	9.93	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	168166	10.0	10.0	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	348740	10.0	9.81	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	444117	10.0	10.0	
64 Methyl methacrylate	69	9.701	9.701	0.000	91	213504	20.0	20.2	
65 1,4-Dioxane	88	9.784	9.784	0.000	93	25197	200.0	208.6	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	94	69680	10.0	9.69	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	94	522105	10.0	10.1	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	1541217	10.0	10.1	
69 Toluene	92	10.385	10.385	0.000	98	1164126	10.0	9.76	
70 2-Nitropropane	43	10.608	10.608	0.000	99	76496	20.0	18.6	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	114439	10.0	9.78	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	84	392470	10.0	10.2	
73 Tetrachloroethene	164	10.748	10.748	0.000	99	435527	10.0	9.84	
74 Ethyl methacrylate	69	10.832	10.832	0.000	88	229752	10.0	10.3	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	156578	10.0	9.78	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	239786	10.0	10.1	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	359106	10.0	9.79	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	199293	10.0	9.59	
79 Ethylene Dibromide	107	11.321	11.321	0.000	99	172769	10.0	9.91	
80 2-Hexanone	43	11.432	11.432	0.000	95	76198	10.0	9.66	
81 1-Chlorohexane	91	11.698	11.698	0.000	96	758744	10.0	10.1	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	90	1075804	10.0	10.0	
82 Ethylbenzene	91	11.754	11.754	0.000	97	2252945	10.0	9.84	
84 Chlorobenzene	112	11.768	11.768	0.000	95	1088551	10.0	9.67	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131	11.823	11.823	0.000	94	352504	10.0	10.0	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	881047	10.0	9.85	
88 o-Xylene	106	12.284	12.284	0.000	98	781318	10.0	9.90	
89 Styrene	104	12.340	12.340	0.000	94	1174476	10.0	10.2	
90 Bromoform	173	12.410	12.410	0.000	98	118333	10.0	10.2	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	2350842	10.0	10.1	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	92	506809	10.0	10.1	
93 N-Propylbenzene	91	12.955	12.955	0.000	98	2721221	10.0	10.2	
94 Bromobenzene	156	12.983	12.983	0.000	96	409347	10.0	9.89	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	97	175822	10.0	9.84	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	1861340	10.0	10.2	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	1674215	10.0	9.94	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	57229	10.0	9.96	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	81	48674	10.0	9.86	
100 Cyclohexanone	55	13.248	13.248	0.000	83	33078	100.0	92.8	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	1493544	10.0	10.0	
102 tert-Butylbenzene	119	13.430	13.430	0.000	92	1721989	10.0	10.1	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	1810559	10.0	10.2	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	2637895	10.0	10.2	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	2209458	10.0	10.3	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	98	866321	10.0	9.89	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	97	1611817	10.0	10.1	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	69	495530	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	829538	10.0	9.85	
111 n-Butylbenzene	134	14.128	14.128	0.000	97	559808	10.0	10.2	
110 Benzyl chloride	126	14.170	14.170	0.000	68	69947	10.0	10.6	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	97	684701	10.0	9.82	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	89	86845	10.0	8.75	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	82	28724	10.0	10.5	
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	97	598559	10.0	10.0	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	353998	10.0	10.1	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	146523	10.0	10.1	
118 Naphthalene	128	16.167	16.167	0.000	97	80852	10.0	9.88	
120 1,2,3-Trichlorobenzene	180	16.363	16.363	0.000	96	22665	10.0	9.68	

Reagents:

8260 Surr 25_00067	Amount Added: 10.00	Units: uL	
8260 NewWkMix_00194	Amount Added: 10.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

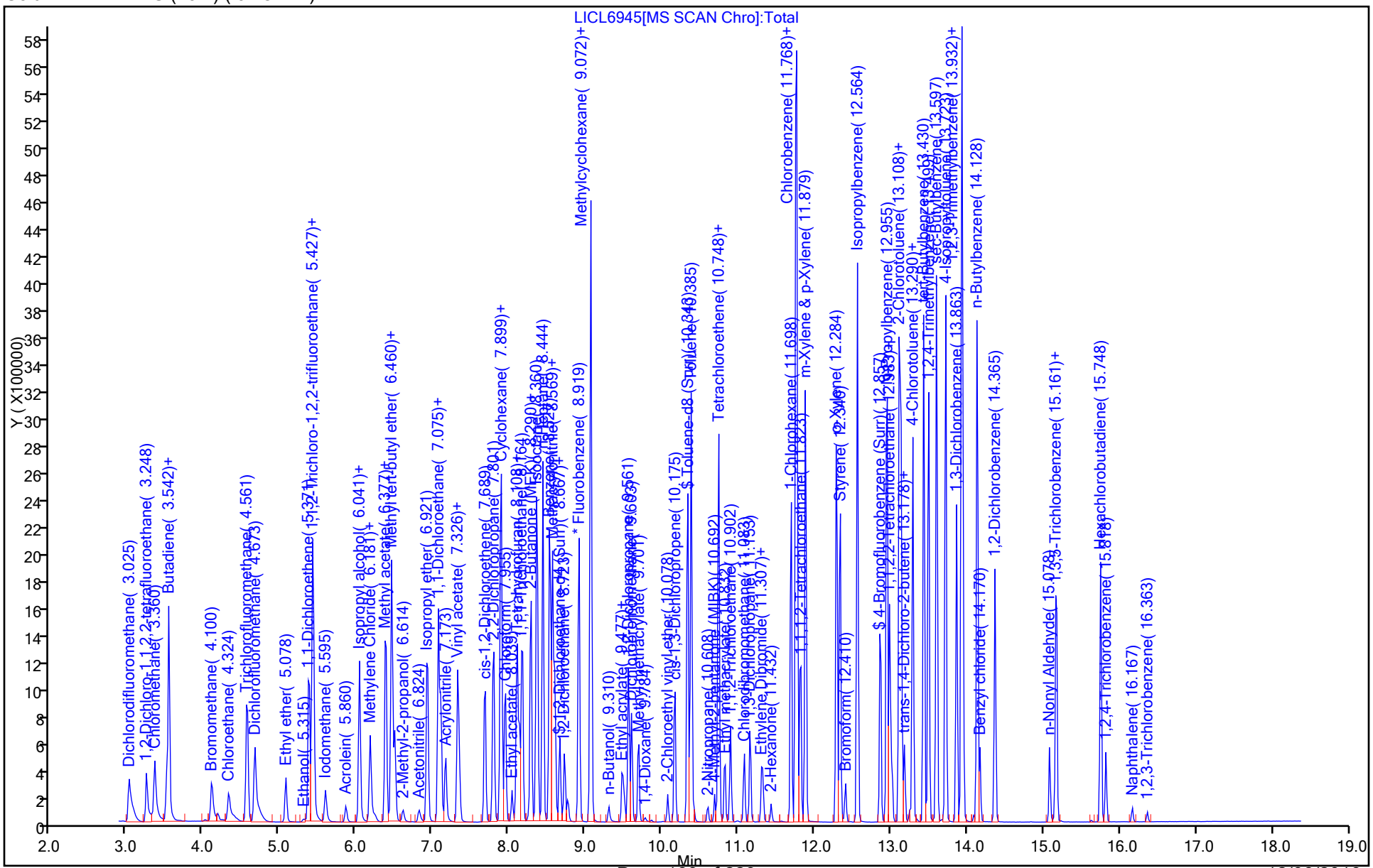
Report Date: 01-Dec-2016 13:45:51 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6945.D

Injection Date:	29-Nov-2016 15:58:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	icis			Worklist Smp#:	12
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6946.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 29-Nov-2016 16:23:30 ALS Bottle#: 8 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 20
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:53 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:27:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	99	1266849	20.0	19.2	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	99	539446	20.0	19.3	M
3 Chloromethane	50	3.360	3.360	0.000	99	1117540	20.0	19.1	
4 Vinyl chloride	62	3.514	3.514	0.000	98	1174257	20.0	19.7	
5 Butadiene	39	3.542	3.542	0.000	93	1201837	20.0	19.3	
6 Bromomethane	94	4.100	4.100	0.000	91	578459	20.0	18.1	
7 Chloroethane	64	4.324	4.324	0.000	99	682298	20.0	19.4	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	99	1739540	20.0	19.5	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	99	1845502	20.0	19.4	
10 Ethyl ether	74	5.078	5.078	0.000	90	310687	20.0	20.0	
11 Ethanol	45	5.315	5.315	0.000	100	86639	800.0	803.9	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	98	955977	20.0	19.6	
13 Carbon disulfide	76	5.427	5.427	0.000	100	3295897	20.0	19.8	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	90	870101	20.0	19.5	
16 Iodomethane	142	5.595	5.595	0.000	100	690412	20.0	19.8	
S 15 1,2-Dichloroethene, Total	96				0			39.0	
17 Acrolein	56	5.860	5.860	0.000	99	211500	100.0	102.2	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	1137959	20.0	19.2	
19 Isopropyl alcohol	45	6.069	6.069	0.000	98	138007	200.0	176.3	
20 Methylene Chloride	84	6.181	6.181	0.000	90	704236	20.0	19.2	
21 Acetone	43	6.251	6.251	0.000	99	68217	20.0	19.8	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	990292	20.0	19.5	
23 Methyl acetate	74	6.391	6.391	0.000	97	202033	100.0	100.6	
24 Hexane	86	6.460	6.460	0.000	94	366101	20.0	19.8	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	87	1300871	20.0	20.2	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	96	210487	200.0	201.7	
27 Acetonitrile	41	6.824	6.824	0.000	99	250124	200.0	200.3	
28 Isopropyl ether	45	6.921	6.921	0.000	93	2113997	20.0	19.6	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	1709128	20.0	19.9	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	97	1562385	20.0	19.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
31 Acrylonitrile	53	7.173	7.173	0.000	98	818381	200.0	194.1	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	1753284	20.0	20.2	
33 Vinyl acetate	43	7.354	7.354	0.000	97	920843	20.0	19.5	
34 cis-1,2-Dichloroethene	96	7.689	7.689	0.000	79	932621	20.0	19.5	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	91	1614134	20.0	20.2	
37 Chlorobromomethane	128	7.899	7.899	0.000	50	272936	20.0	19.2	
36 Cyclohexane	84	7.899	7.899	0.000	89	1831079	20.0	19.8	
38 Chloroform	83	7.955	7.955	0.000	93	1506188	20.0	19.6	
39 Ethyl acetate	45	8.039	8.039	0.000	99	69442	40.0	40.3	
40 Carbon tetrachloride	117	8.108	8.108	0.000	97	1556273	20.0	20.3	
41 Tetrahydrofuran	71	8.122	8.122	0.000	86	55840	40.0	40.3	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	605617	20.0	20.3	
43 1,1,1-Trichloroethane	97	8.178	8.178	0.000	98	1742919	20.0	19.9	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	100	101918	20.0	20.0	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	96	1497224	20.0	19.7	
44 Isooctane	57	8.360	8.360	0.000	97	4378630	20.0	19.7	
46 n-Heptane	43	8.444	8.444	0.000	90	1852819	20.0	19.6	
48 Benzene	78	8.527	8.527	0.000	96	3654197	20.0	19.4	
49 Propionitrile	54	8.555	8.555	0.000	94	305536	200.0	199.8	
50 Methacrylonitrile	41	8.569	8.569	0.000	91	1769409	200.0	190.0	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	97	1421682	20.0	20.5	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	147154	500.0	505.5	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	90	566414	20.0	19.1	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	99	743642	20.0	19.4	
* 55 Fluorobenzene	96	8.919	8.919	0.000	99	1720013	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	87	1563571	20.0	19.4	
57 Trichloroethene	95	9.072	9.072	0.000	63	1015977	20.0	19.4	
59 n-Butanol	56	9.310	9.310	0.000	89	152204	500.0	563.7	
61 Dibromomethane	93	9.477	9.477	0.000	96	277294	20.0	19.7	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	356890	20.0	20.7	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	92	718376	20.0	19.6	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	924350	20.0	20.2	
64 Methyl methacrylate	69	9.701	9.701	0.000	90	464975	40.0	42.7	
65 1,4-Dioxane	88	9.784	9.784	0.000	92	54571	400.0	439.0	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	94	151106	20.0	20.4	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	95	1095559	20.0	20.5	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	3039086	20.0	19.3	
69 Toluene	92	10.385	10.385	0.000	99	2417477	20.0	19.7	
70 2-Nitropropane	43	10.608	10.608	0.000	98	167111	40.0	39.4	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	242027	20.0	20.1	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	80	817017	20.0	20.6	
73 Tetrachloroethene	164	10.748	10.748	0.000	98	898919	20.0	19.7	
74 Ethyl methacrylate	69	10.832	10.832	0.000	88	501225	20.0	21.9	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	324354	20.0	19.7	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	507826	20.0	20.7	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	744965	20.0	19.7	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	448387	20.0	21.0	
79 Ethylene Dibromide	107	11.321	11.321	0.000	98	363684	20.0	20.3	
80 2-Hexanone	43	11.432	11.432	0.000	96	163348	20.0	20.2	
81 1-Chlorohexane	91	11.698	11.698	0.000	95	1596870	20.0	20.7	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	90	1107315	10.0	10.0	
82 Ethylbenzene	91	11.768	11.768	0.000	97	4634193	20.0	19.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 Chlorobenzene	112	11.782	11.782	0.000	95	2232321	20.0	19.3	
85 1,1,1,2-Tetrachloroethane	131	11.823	11.823	0.000	94	728039	20.0	20.1	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	1843790	20.0	20.0	
88 o-Xylene	106	12.284	12.284	0.000	98	1631565	20.0	20.1	
89 Styrene	104	12.340	12.340	0.000	94	2499012	20.0	21.0	
90 Bromoform	173	12.410	12.410	0.000	97	257362	20.0	21.4	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	4906160	20.0	20.2	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	91	1034534	20.0	19.8	
93 N-Propylbenzene	91	12.955	12.955	0.000	98	5665390	20.0	20.4	
94 Bromobenzene	156	12.983	12.983	0.000	96	850995	20.0	19.8	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	96	373688	20.0	20.1	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	94	3850130	20.0	20.4	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	3485739	20.0	19.9	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	120058	20.0	20.1	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	82	104313	20.0	20.3	
100 Cyclohexanone	55	13.248	13.248	0.000	92	78145	200.0	211.0	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	3079404	20.0	19.9	
102 tert-Butylbenzene	119	13.430	13.430	0.000	92	3626000	20.0	20.4	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	3772222	20.0	20.4	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	5546004	20.0	20.5	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	96	4635244	20.0	20.8	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	97	1791509	20.0	19.7	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	98	3333837	20.0	20.1	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	57	515183	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	94	1717980	20.0	19.6	
111 n-Butylbenzene	134	14.142	14.142	0.000	97	1193593	20.0	20.9	
110 Benzyl chloride	126	14.170	14.170	0.000	78	155741	20.0	22.7	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	97	1428360	20.0	19.7	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	90	209606	20.0	18.9	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	85	63145	20.0	22.1	
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	98	1241628	20.0	20.0	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	759183	20.0	20.9	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	322504	20.0	21.3	
118 Naphthalene	128	16.167	16.167	0.000	97	180730	20.0	21.2	
120 1,2,3-Trichlorobenzene	180	16.363	16.363	0.000	96	51327	20.0	20.9	
S 119 Xylenes, Total	106				0			40.1	
S 130 Trihalomethanes, Total	1				0			81.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 Surr 25_00067	Amount Added: 20.00	Units: uL	
8260NewHiWrk_00172	Amount Added: 4.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

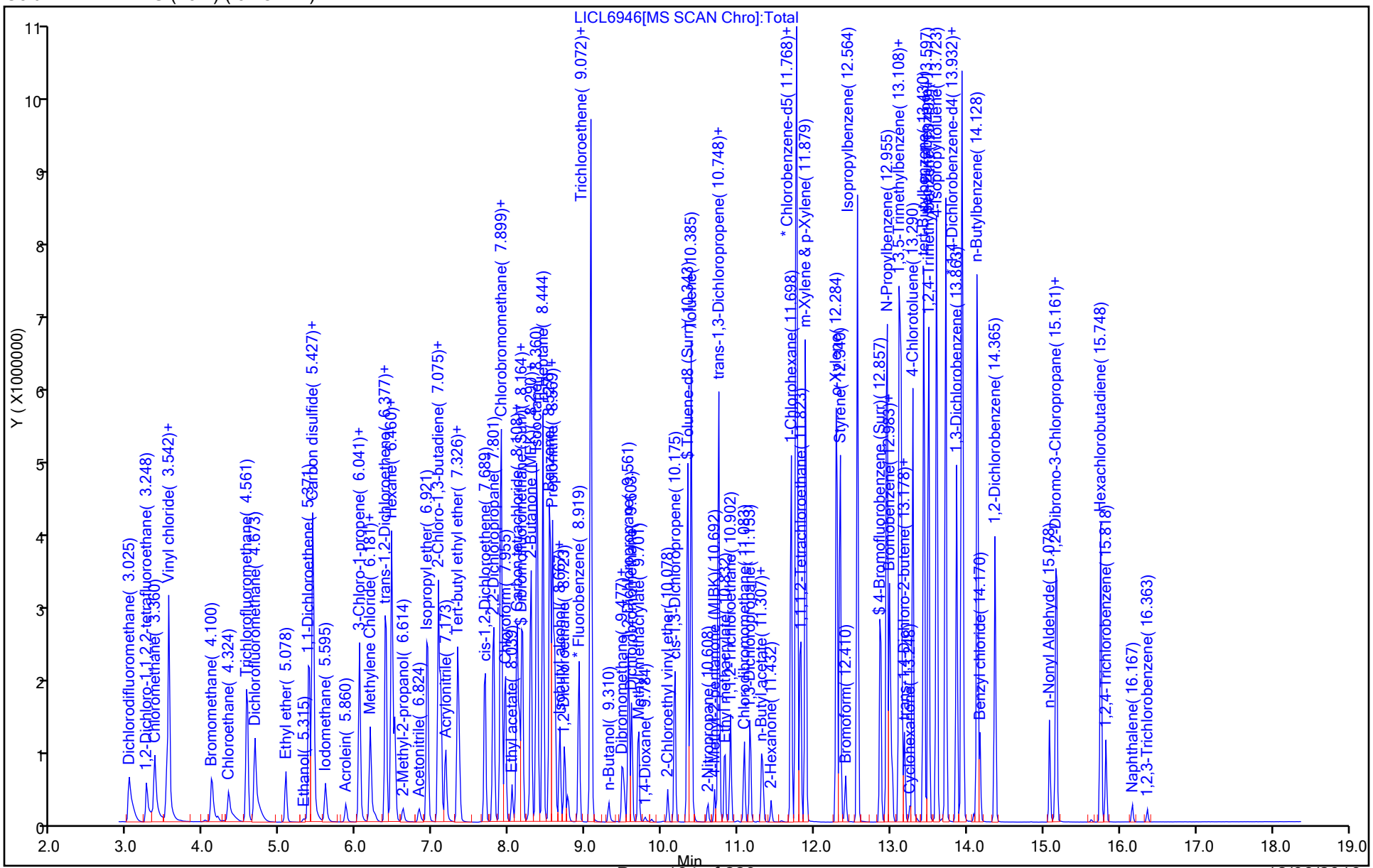
Report Date: 01-Dec-2016 13:45:54 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6946.D

Injection Date:	29-Nov-2016 16:23:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	ic			Worklist Smp#:	13
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis

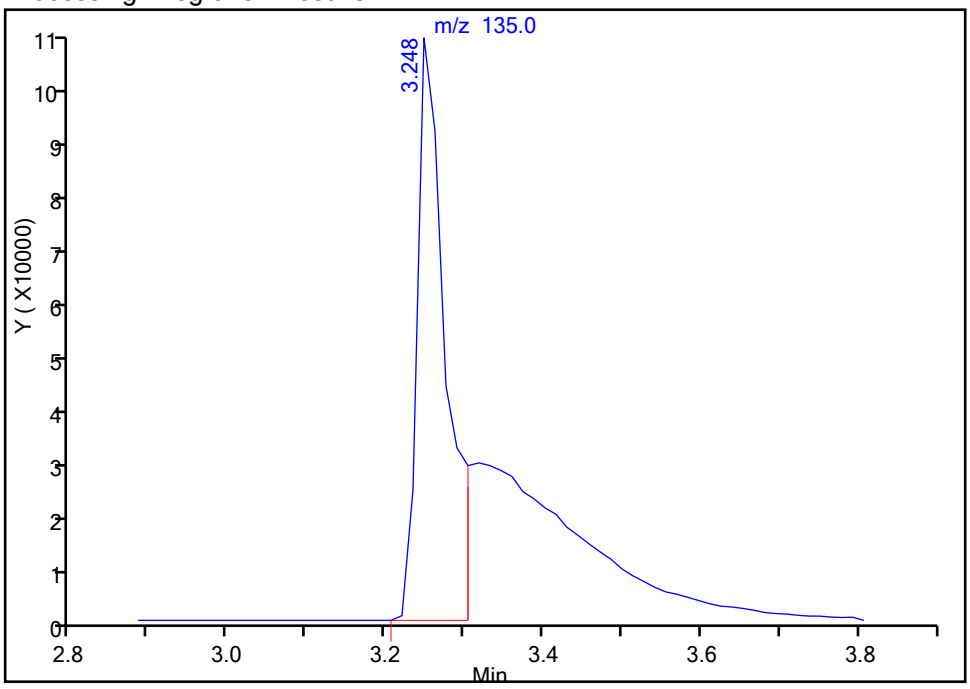
Data File:	\\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6946.D				
Injection Date:	29-Nov-2016 16:23:30	Instrument ID:	VMSL		
Lims ID:	ic				
Client ID:					
Operator ID:	SMCR	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

2 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

Signal: 1

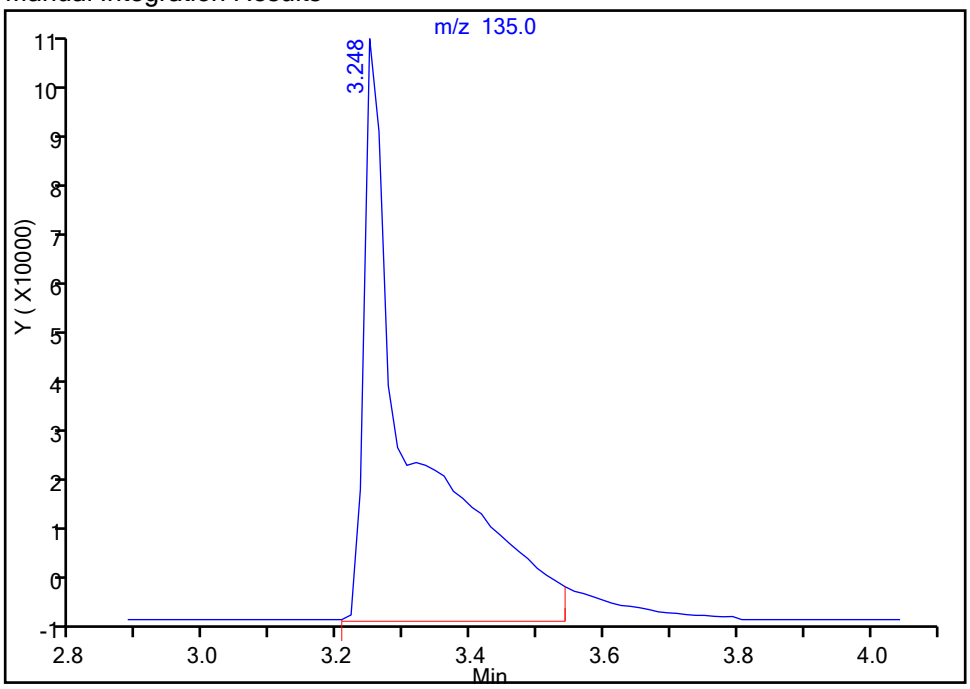
Processing Integration Results

RT: 3.25
Area: 277659
Amount: 11.293080
Amount Units: ug/l



Manual Integration Results

RT: 3.25
Area: 539446
Amount: 19.294356
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:27:07
Audit Action: Manually Integrated Audit Reason: Peak Tail

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 29-Nov-2016 16:48:30 ALS Bottle#: 9 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 40
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub17

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:57 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:29:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	100	2437431	40.0	37.1	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	100	1032083	40.0	37.2	M
3 Chloromethane	50	3.360	3.360	0.000	100	2173756	40.0	37.5	
4 Vinyl chloride	62	3.513	3.514	-0.001	98	2315076	40.0	39.1	
5 Butadiene	39	3.541	3.542	-0.001	92	2294606	40.0	37.1	
6 Bromomethane	94	4.114	4.100	0.014	91	1227611	40.0	38.6	
7 Chloroethane	64	4.338	4.324	0.014	99	1334244	40.0	38.3	
8 Trichlorofluoromethane	101	4.575	4.561	0.014	99	3298724	40.0	37.2	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	3581112	40.0	37.8	
10 Ethyl ether	74	5.078	5.078	0.000	89	610807	40.0	39.7	
11 Ethanol	45	5.301	5.315	-0.014	100	170982	1600.0	1611.2	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	99	1849173	40.0	38.2	
13 Carbon disulfide	76	5.427	5.427	0.000	99	6388312	40.0	38.6	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	89	1642495	40.0	37.0	
16 Iodomethane	142	5.594	5.595	-0.001	100	1454807	40.0	41.6	
S 15 1,2-Dichloroethene, Total	96				0			76.5	
17 Acrolein	56	5.860	5.860	0.000	99	418421	200.0	203.5	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	91	2127951	40.0	36.2	
19 Isopropyl alcohol	45	6.069	6.069	0.000	97	260989	400.0	335.6	
20 Methylene Chloride	84	6.181	6.181	0.000	93	1391697	40.0	38.3	
21 Acetone	43	6.251	6.251	0.000	99	125898	40.0	38.4	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	1919777	40.0	38.0	
23 Methyl acetate	74	6.391	6.391	0.000	97	397484	200.0	199.3	
24 Hexane	86	6.460	6.460	0.000	93	705685	40.0	38.4	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	82	2566463	40.0	40.0	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	97	428399	400.0	413.4	
27 Acetonitrile	41	6.823	6.824	-0.001	99	494823	400.0	402.6	
28 Isopropyl ether	45	6.921	6.921	0.000	93	4039495	40.0	37.8	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	91	3237912	40.0	38.0	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	97	3021096	40.0	37.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
31 Acrylonitrile	53	7.173	7.173	0.000	99	1616203	400.0	386.0	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	97	3424924	40.0	39.8	
33 Vinyl acetate	43	7.354	7.354	0.000	97	1801459	40.0	38.4	
34 cis-1,2-Dichloroethene	96	7.689	7.689	0.000	79	1826931	40.0	38.5	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	90	3062840	40.0	38.5	
37 Chlorobromomethane	128	7.899	7.899	0.000	49	527244	40.0	37.4	
36 Cyclohexane	84	7.899	7.899	0.000	88	3482473	40.0	37.9	
38 Chloroform	83	7.955	7.955	0.000	94	2932787	40.0	38.5	
39 Ethyl acetate	45	8.039	8.039	0.000	99	136156	80.0	79.6	
40 Carbon tetrachloride	117	8.108	8.108	0.000	98	2966822	40.0	38.9	
41 Tetrahydrofuran	71	8.122	8.122	0.000	86	112362	80.0	81.6	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	1316162	40.0	44.4	
43 1,1,1-Trichloroethane	97	8.178	8.178	0.000	98	3332386	40.0	38.3	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	100	199679	40.0	40.0	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	96	2892465	40.0	38.3	
44 Isooctane	57	8.360	8.360	0.000	96	8096326	40.0	36.7	
46 n-Heptane	43	8.444	8.444	0.000	89	3408136	40.0	36.2	
48 Benzene	78	8.527	8.527	0.000	96	7086738	40.0	37.9	
49 Propionitrile	54	8.555	8.555	0.000	95	593295	400.0	390.7	
50 Methacrylonitrile	41	8.569	8.569	0.000	90	3377681	400.0	365.3	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	98	2842292	40.0	41.3	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	292616	1000.0	1012.1	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	90	1220230	40.0	41.4	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	1440245	40.0	37.8	
* 55 Fluorobenzene	96	8.918	8.919	0.000	99	1708257	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	86	2883578	40.0	36.1	
57 Trichloroethene	95	9.072	9.072	0.000	63	1935340	40.0	37.2	
59 n-Butanol	56	9.309	9.310	-0.001	89	308924	1000.0	1152.0	
61 Dibromomethane	93	9.477	9.477	0.000	95	546265	40.0	39.1	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	728842	40.0	42.6	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	92	1399481	40.0	38.5	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	1823547	40.0	40.2	
64 Methyl methacrylate	69	9.701	9.701	0.000	90	926051	80.0	85.7	
65 1,4-Dioxane	88	9.784	9.784	0.000	92	109312	800.0	885.5	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	94	292523	40.0	39.8	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	95	2155570	40.0	40.7	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	6404693	40.0	41.9	
69 Toluene	92	10.385	10.385	0.000	99	4637051	40.0	38.8	
70 2-Nitropropane	43	10.608	10.608	0.000	98	338808	80.0	82.2	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	475959	40.0	40.6	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	81	1592877	40.0	41.2	
73 Tetrachloroethene	164	10.748	10.748	0.000	99	1676775	40.0	37.8	
74 Ethyl methacrylate	69	10.832	10.832	0.000	88	1015131	40.0	45.6	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	644233	40.0	40.2	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	1008525	40.0	42.3	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	91	1454871	40.0	39.6	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	885022	40.0	42.5	
79 Ethylene Dibromide	107	11.321	11.321	0.000	98	712066	40.0	40.8	
80 2-Hexanone	43	11.432	11.432	0.000	96	319443	40.0	40.6	
81 1-Chlorohexane	91	11.698	11.698	0.000	95	3013342	40.0	40.2	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	90	1077614	10.0	10.0	
82 Ethylbenzene	91	11.768	11.768	0.000	98	8568131	40.0	37.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 Chlorobenzene	112	11.782	11.782	0.000	95	4270468	40.0	37.9	
85 1,1,1,2-Tetrachloroethane	131	11.823	11.823	0.000	95	1422693	40.0	40.4	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	3491935	40.0	39.0	
88 o-Xylene	106	12.298	12.284	0.014	97	3129584	40.0	39.6	
89 Styrene	104	12.340	12.340	0.000	93	4846156	40.0	41.8	
90 Bromoform	173	12.410	12.410	0.000	97	527075	40.0	46.1	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	8944910	40.0	38.8	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	90	2126248	40.0	42.9	
93 N-Propylbenzene	91	12.955	12.955	0.000	97	10240269	40.0	38.8	
94 Bromobenzene	156	12.983	12.983	0.000	96	1647574	40.0	40.3	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	95	746919	40.0	42.4	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	7166454	40.0	40.0	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	6491459	40.0	39.1	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	237785	40.0	41.9	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	82	208148	40.0	42.8	
100 Cyclohexanone	55	13.248	13.248	0.000	91	160470	400.0	456.7	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	5800755	40.0	39.5	
102 tert-Butylbenzene	119	13.430	13.430	0.000	92	6610880	40.0	39.3	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	7053640	40.0	40.2	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	9964528	40.0	38.9	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	96	8299118	40.0	39.3	
106 1,3-Dichlorobenzene	146	13.862	13.863	-0.001	97	3426088	40.0	39.7	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	98	6234680	40.0	39.6	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	51	488723	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	93	3238676	40.0	39.0	
111 n-Butylbenzene	134	14.142	14.142	0.000	96	2235562	40.0	41.3	
110 Benzyl chloride	126	14.170	14.170	0.000	79	322469	40.0	49.5	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	97	2739006	40.0	39.8	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	90	444393	40.0	40.9	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	84	122991	40.0	45.5	
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	98	2271260	40.0	38.5	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	1206596	40.0	35.1	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	494990	40.0	34.4	
118 Naphthalene	128	16.167	16.167	0.000	97	286216	40.0	35.4	
120 1,2,3-Trichlorobenzene	180	16.362	16.363	0.000	96	71125	40.0	30.4	
S 119 Xylenes, Total	106				0			78.5	
S 130 Trihalomethanes, Total	1				0			167.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260_Surr_00041	Amount Added: 0.40	Units: uL	
8260NewHiWrk_00172	Amount Added: 8.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

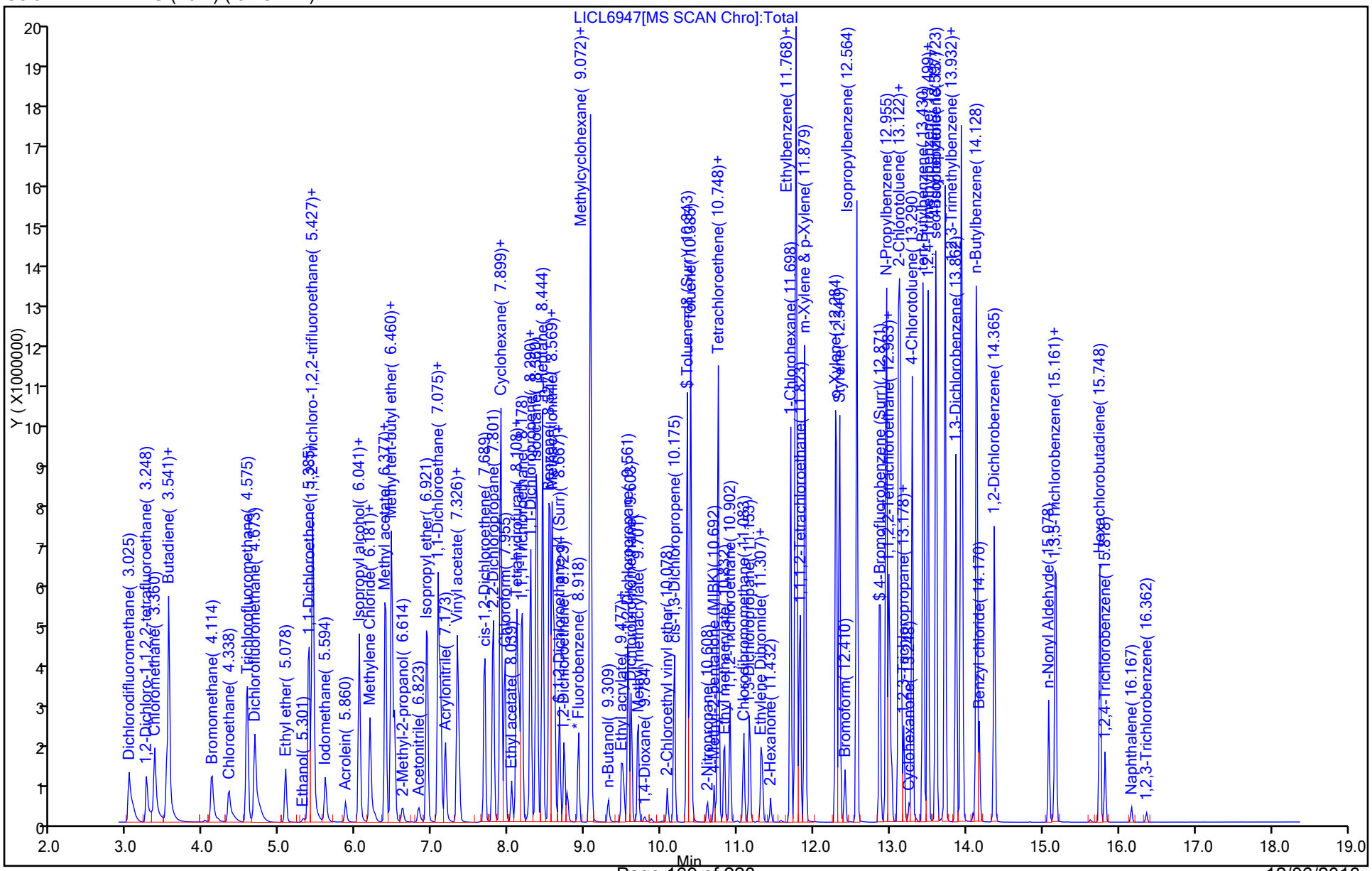
Report Date: 01-Dec-2016 13:45:57 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Injection Date:	29-Nov-2016 16:48:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	ic			Worklist Smp#:	14
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis

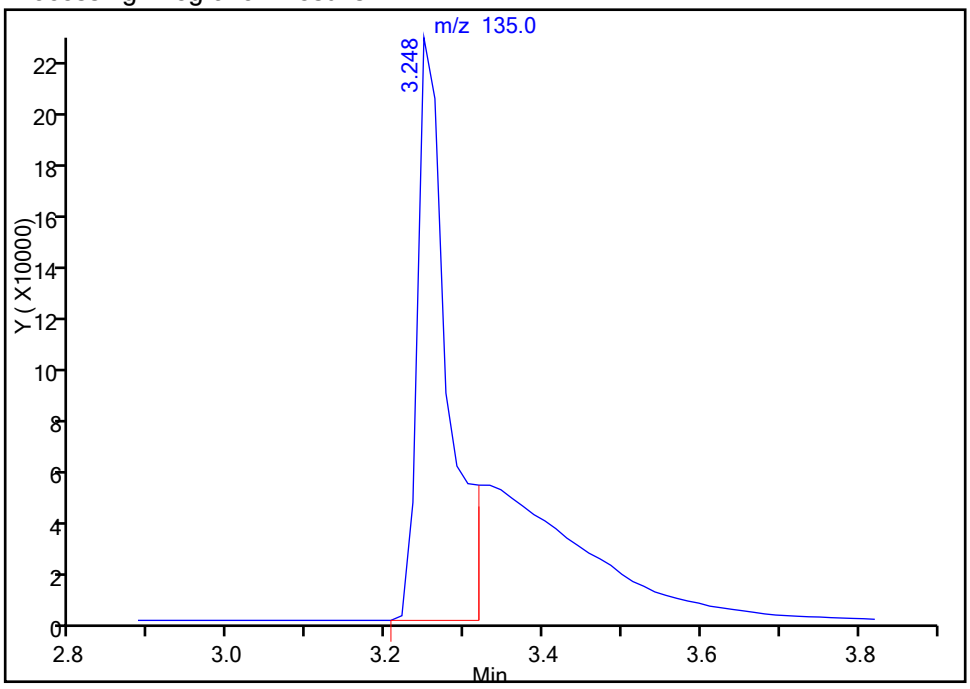
Data File:	\\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D				
Injection Date:	29-Nov-2016 16:48:30	Instrument ID:	VMSL		
Lims ID:	ic				
Client ID:					
Operator ID:	SMCR	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		
Column:	RTX-VMS (40m) (0.18 mm)	Detector	MS SCAN		

2 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

Signal: 1

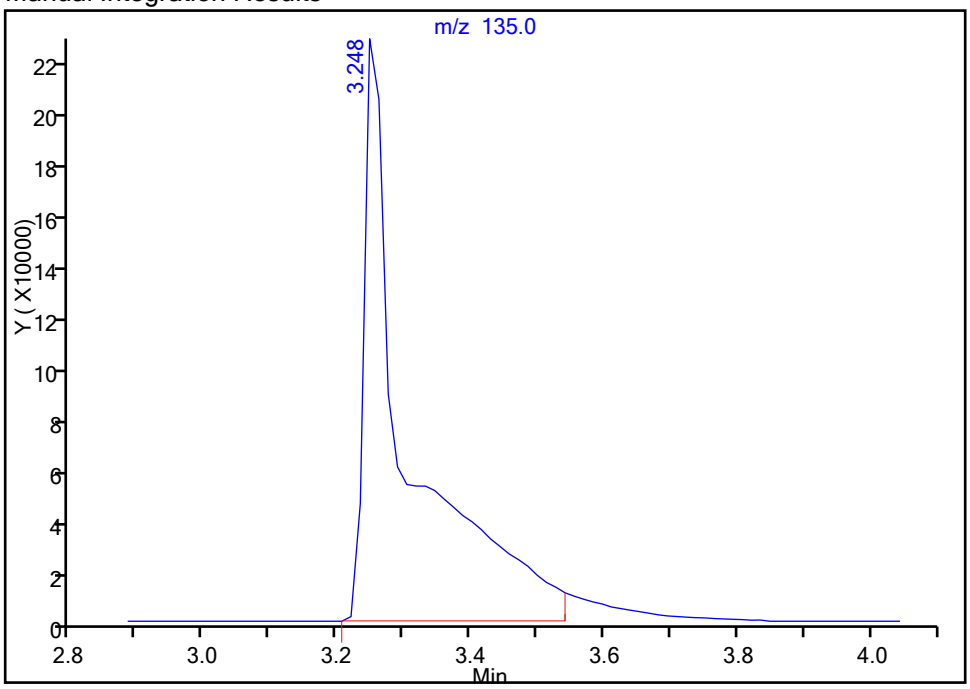
Processing Integration Results

RT: 3.25
Area: 614345
Amount: 28.779411
Amount Units: ug/l



Manual Integration Results

RT: 3.25
Area: 1032083
Amount: 37.168536
Amount Units: ug/l



Reviewer: rhoadess, 30-Nov-2016 08:29:50
Audit Action: Manually Integrated Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: ICV 160-281296/16 Calibration Date: 11/29/2016 17:38

Instrument ID: VMSL Calib Start Date: 11/29/2016 14:17

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/29/2016 16:48

Lab File ID: LICV6949.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3843	0.3912	0.1000	10.2	10.0	1.8	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1625	0.1841	0.0100	11.3	10.0	13.3	30.0
Chloromethane	Ave	0.3395	0.3388	0.1000	9.98	10.0	-0.2	30.0
Vinyl chloride	Ave	0.3465	0.3376	0.1000	9.74	10.0	-2.6	30.0
Butadiene	Ave	0.3625	0.3069	0.0100	8.47	10.0	-15.3	30.0
Methyl bromide	Ave	0.1862	0.1715	0.1000	9.21	10.0	-7.9	30.0
Chloroethane	Ave	0.2041	0.1950	0.1000	9.55	10.0	-4.5	30.0
Trichlorofluoromethane	Ave	0.5191	0.5224	0.1000	10.1	10.0	0.6	30.0
Dichlorofluoromethane	Ave	0.5541	0.5300	0.0100	9.57	10.0	-4.3	30.0
Ethyl ether	Ave	0.0902	0.0923	0.0100	10.2	10.0	2.3	30.0
Ethanol	Lin1		0.0006*	0.0010	387	400	-3.3	30.0
1,1-Dichloroethene	Ave	0.2834	0.2713	0.1000	9.57	10.0	-4.3	30.0
Carbon disulfide	Ave	0.9676	0.9261	0.1000	9.57	10.0	-4.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2599	0.2502	0.1000	9.63	10.0	-3.7	30.0
Iodomethane	Lin1		0.1608	0.0100	8.24	10.0	-17.6	30.0
Acrolein	Ave	0.0120	0.0120	0.0010	50.0	50.0	-0.0	30.0
Allyl chloride	Ave	0.3446	0.3332	0.0100	9.67	10.0	-3.3	30.0
Isopropyl alcohol	Ave	0.0046	0.0041*	0.0100	89.0	100	-11.0	30.0
Methylene Chloride	Ave	0.2130	0.2096	0.1000	9.84	10.0	-1.6	30.0
Acetone	Lin2		0.0232*	0.1000	10.8	10.0	7.8	30.0
trans-1,2-Dichloroethene	Ave	0.2954	0.2939	0.1000	9.95	10.0	-0.5	30.0
Methyl acetate	Ave	0.0117	0.0120*	0.1000	51.4	50.0	2.8	30.0
Hexane	Ave	0.1077	0.1062	0.0100	9.86	10.0	-1.4	30.0
Methyl tert-butyl ether	Ave	0.3751	0.3849	0.1000	10.3	10.0	2.6	30.0
tert-Butyl alcohol	Ave	0.0061	0.0062*	0.0100	102	100	2.0	30.0
Acetonitrile	Lin1		0.0072	0.0010	96.8	100	-3.2	30.0
Isopropyl ether	Ave	0.6256	0.6380	0.0100	10.2	10.0	2.0	30.0
2-Chloro-1,3-butadiene	Ave	0.4982	0.4976	0.0100	9.99	10.0	-0.1	30.0
1,1-Dichloroethane	Ave	0.4701	0.4726	0.2000	10.1	10.0	0.5	30.0
Acrylonitrile	Ave	0.0245	0.0245	0.0100	100	100	-0.0	30.0
Tert-butyl ethyl ether	Ave	0.5040	0.5147	0.0100	10.2	10.0	2.1	30.0
Vinyl acetate	Ave	0.2746	0.2629	0.0100	9.57	10.0	-4.3	30.0
cis-1,2-Dichloroethene	Ave	0.2780	0.2752	0.1000	9.90	10.0	-1.0	30.0
2,2-Dichloropropane	Ave	0.4655	0.4405	0.0100	9.46	10.0	-5.4	30.0
Bromochloromethane	Ave	0.0826	0.0824	0.0100	9.98	10.0	-0.2	30.0
Cyclohexane	Ave	0.5380	0.5341	0.1000	9.93	10.0	-0.7	30.0
Chloroform	Ave	0.4464	0.4438	0.2000	9.94	10.0	-0.6	30.0
Ethyl acetate	Ave	0.0100	0.0102	0.0100	20.4	20.0	2.2	30.0
Carbon tetrachloride	Ave	0.4466	0.4471	0.1000	10.0	10.0	0.1	30.0
Tetrahydrofuran	Ave	0.0081	0.0084	0.0010	20.9	20.0	4.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: ICV 160-281296/16 Calibration Date: 11/29/2016 17:38

Instrument ID: VMSL Calib Start Date: 11/29/2016 14:17

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/29/2016 16:48

Lab File ID: LICV6949.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,1-Trichloroethane	Ave	0.5096	0.5091	0.1000	9.99	10.0	-0.1	30.0
2-Butanone	Lin1		0.0315*	0.1000	10.4	10.0	3.7	30.0
1,1-Dichloropropene	Ave	0.4427	0.4561	0.0100	10.3	10.0	3.0	30.0
Isooctane	Ave	1.291	1.262	0.0100	9.77	10.0	-2.3	30.0
n-Heptane	Ave	0.5504	0.5405	0.0100	9.82	10.0	-1.8	30.0
Benzene	Ave	1.094	1.098	0.5000	10.0	10.0	0.4	30.0
Propionitrile	Ave	0.0089	0.0092	0.0010	103	100	3.3	30.0
Methacrylonitrile	Ave	0.0541	0.0541	0.0100	100	100	-0.0	30.0
Tert-amyl methyl ether	Ave	0.4033	0.4113	0.0100	10.2	10.0	2.0	30.0
Isobutanol	Ave	0.0017	0.0016	0.0010	240	250	-4.2	30.0
1,2-Dichloroethane	Ave	0.2229	0.2202	0.1000	9.88	10.0	-1.2	30.0
Methylcyclohexane	Ave	0.4682	0.4567	0.1000	9.75	10.0	-2.5	30.0
Trichloroethene	Ave	0.3045	0.3020	0.2000	9.92	10.0	-0.8	30.0
n-Butanol	Ave	0.0016	0.0017*	0.0100	270	250	8.0	30.0
Dibromomethane	Ave	0.0817	0.0819	0.0100	10.0	10.0	0.3	30.0
Ethyl acrylate	Ave	0.1001	0.1020	0.0100	10.2	10.0	1.9	30.0
1,2-Dichloropropane	Ave	0.2126	0.2153	0.1000	10.1	10.0	1.3	30.0
Bromodichloromethane	Ave	0.2655	0.2796	0.2000	10.5	10.0	5.3	30.0
Methyl methacrylate	Ave	0.0633	0.0673	0.0100	21.3	20.0	6.4	30.0
1,4-Dioxane	Ave	0.0007	0.0008*	0.0010	217	200	8.7	30.0
2-Chloroethyl vinyl ether	Ave	0.0430	0.0414	0.0100	9.63	10.0	-3.7	30.0
cis-1,3-Dichloropropene	Ave	0.3100	0.3211	0.2000	10.4	10.0	3.6	30.0
Toluene	Ave	1.109	1.110	0.4000	10.0	10.0	0.1	30.0
2-Nitropropane	Ave	0.0383	0.0355	0.0100	18.5	20.0	-7.3	30.0
4-Methyl-2-pentanone	Ave	0.1088	0.1142	0.1000	10.5	10.0	5.0	30.0
Tetrachloroethene	Ave	0.4114	0.4075	0.2000	9.91	10.0	-0.9	30.0
trans-1,3-Dichloropropene	Ave	0.3589	0.3660	0.1000	10.2	10.0	2.0	30.0
Ethyl methacrylate	Ave	0.2068	0.2223	0.0100	10.8	10.0	7.5	30.0
1,1,2-Trichloroethane	Ave	0.1488	0.1546	0.1000	10.4	10.0	3.9	30.0
Chlorodibromomethane	Ave	0.2213	0.2264	0.1000	10.2	10.0	2.3	30.0
1,3-Dichloropropane	Ave	0.3410	0.3368	0.0100	9.88	10.0	-1.2	30.0
n-Butyl acetate	Ave	0.1932	0.1970	0.0100	10.2	10.0	2.0	30.0
1,2-Dibromoethane	Ave	0.1621	0.1653	0.1000	10.2	10.0	2.0	30.0
2-Hexanone	Lin1		0.0793*	0.1000	10.8	10.0	8.2	30.0
Ethylbenzene	Ave	2.127	2.124	0.1000	9.99	10.0	-0.1	30.0
Chlorobenzene	Ave	1.046	1.047	0.5000	10.0	10.0	0.1	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3267	0.3411	0.0100	10.4	10.0	4.4	30.0
m-Xylene & p-Xylene	Ave	0.8316	0.8391	0.1000	10.1	10.0	0.9	30.0
o-Xylene	Ave	0.7339	0.7457	0.3000	10.2	10.0	1.6	30.0
Styrene	Ave	1.075	1.116	0.3000	10.4	10.0	3.8	30.0
Bromoform	Ave	0.2337	0.2460	0.1000	10.5	10.0	5.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: ICV 160-281296/16 Calibration Date: 11/29/2016 17:38

Instrument ID: VMSL Calib Start Date: 11/29/2016 14:17

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/29/2016 16:48

Lab File ID: LICV6949.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropylbenzene	Ave	4.719	4.830	0.1000	10.2	10.0	2.4	30.0
N-Propylbenzene	Ave	5.399	5.605	0.0100	10.4	10.0	3.8	30.0
Bromobenzene	Ave	0.8357	0.8448	0.0100	10.1	10.0	1.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.3607	0.3705	0.3000	10.3	10.0	2.7	30.0
1,3,5-Trimethylbenzene	Ave	3.668	3.800	0.0100	10.4	10.0	3.6	30.0
2-Chlorotoluene	Ave	3.399	3.454	0.0100	10.2	10.0	1.6	30.0
1,2,3-Trichloropropane	Ave	0.1160	0.1221	0.0100	10.5	10.0	5.3	30.0
trans-1,4-Dichloro-2-butene	Ave	0.0996	0.1068	0.0100	10.7	10.0	7.2	30.0
Cyclohexanone	Ave	0.0072	0.0069	0.0010	96.3	100	-3.7	30.0
4-Chlorotoluene	Ave	3.001	3.094	0.0100	10.3	10.0	3.1	30.0
tert-Butylbenzene	Ave	3.444	3.538	0.0100	10.3	10.0	2.7	30.0
1,2,4-Trimethylbenzene	Ave	3.595	3.692	0.0100	10.3	10.0	2.7	30.0
sec-Butylbenzene	Ave	5.239	5.397	0.0100	10.3	10.0	3.0	30.0
4-Isopropyltoluene	Ave	4.322	4.462	0.0100	10.3	10.0	3.2	30.0
1,3-Dichlorobenzene	Ave	1.768	1.799	0.6000	10.2	10.0	1.7	30.0
1,2,3-Trimethylbenzene	Ave	3.223	3.326	0.0100	10.3	10.0	3.2	30.0
1,4-Dichlorobenzene	Ave	1.699	1.747	0.5000	10.3	10.0	2.8	30.0
n-Butylbenzene	Ave	1.107	1.154	0.0100	10.4	10.0	4.2	30.0
Benzyl chloride	Ave	0.1334	0.1387	0.0100	10.4	10.0	4.0	30.0
1,2-Dichlorobenzene	Ave	1.408	1.442	0.4000	10.2	10.0	2.4	30.0
Nonanal	Lin		0.1677	0.0100	8.42	10.0	-15.8	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0554	0.0636	0.0500	11.5	10.0	14.8	30.0
1,3,5-Trichlorobenzene	Ave	1.206	1.245	0.0100	10.3	10.0	3.3	30.0
Hexachlorobutadiene	Ave	0.7043	0.7600	0.0100	10.8	10.0	7.9	30.0
1,2,4-Trichlorobenzene	Ave	0.2941	0.3276	0.2000	11.1	10.0	11.4	30.0
Naphthalene	Ave	0.1652	0.1831	0.0100	11.1	10.0	10.8	30.0
1,2,3-Trichlorobenzene	Lin1		0.0557	0.0100	11.7	10.0	17.4	30.0
Dibromofluoromethane (Surr)	Ave	0.1736	0.1799	0.0100	10.4	10.0	3.7	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.1726	0.1700	0.0100	9.85	10.0	-1.5	30.0
Toluene-d8 (Surr)	Ave	1.420	1.397	0.0100	9.84	10.0	-1.6	30.0
4-Bromofluorobenzene (Surr)	Ave	1.014	1.005	0.0100	9.91	10.0	-0.9	30.0

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICV6949.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 29-Nov-2016 17:38:30 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: SMCR Instrument ID: VMSL
Sublist:

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:59 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: rhoadess Date: 30-Nov-2016 08:39:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	99	660636	10.0	10.2	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	99	310920	10.0	11.3	
3 Chloromethane	50	3.360	3.360	0.000	99	572180	10.0	9.98	
4 Vinyl chloride	62	3.514	3.514	0.000	98	570119	10.0	9.74	
5 Butadiene	39	3.542	3.542	0.000	94	518304	10.0	8.47	
6 Bromomethane	94	4.100	4.100	0.000	91	289649	10.0	9.21	
7 Chloroethane	64	4.324	4.324	0.000	99	329307	10.0	9.55	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	100	882305	10.0	10.1	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	895125	10.0	9.57	
10 Ethyl ether	74	5.078	5.078	0.000	90	155822	10.0	10.2	
11 Ethanol	45	5.315	5.315	0.000	100	41702	400.0	387.0	
12 1,1-Dichloroethene	96	5.385	5.385	0.000	99	458159	10.0	9.57	
13 Carbon disulfide	76	5.427	5.427	0.000	100	1564022	10.0	9.57	
14 1,1,2-Trichloro-1,2,2-trif	151	5.441	5.441	0.000	90	422495	10.0	9.63	
16 Iodomethane	142	5.595	5.595	0.000	99	271530	10.0	8.24	
17 Acrolein	56	5.860	5.860	0.000	99	101549	50.0	50.0	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	562719	10.0	9.67	
19 Isopropyl alcohol	45	6.069	6.069	0.000	97	68395	100.0	89.0	
20 Methylene Chloride	84	6.181	6.181	0.000	92	353931	10.0	9.84	
21 Acetone	43	6.251	6.251	0.000	98	39186	10.0	10.8	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	496303	10.0	9.95	
23 Methyl acetate	74	6.391	6.391	0.000	97	101349	50.0	51.4	
24 Hexane	86	6.460	6.460	0.000	94	179267	10.0	9.86	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	87	650027	10.0	10.3	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	96	104468	100.0	102.0	
27 Acetonitrile	41	6.824	6.824	0.000	99	120891	100.0	96.8	
28 Isopropyl ether	45	6.921	6.921	0.000	93	1077456	10.0	10.2	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	92	840426	10.0	9.99	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	95	798147	10.0	10.1	
31 Acrylonitrile	53	7.173	7.173	0.000	99	413883	100.0	100.0	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	869159	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Vinyl acetate	43	7.354	7.354	0.000	98	443984	10.0	9.57	
34 cis-1,2-Dichloroethene	96	7.689	7.689	0.000	79	464834	10.0	9.90	
35 2,2-Dichloropropane	77	7.801	7.801	0.000	91	744002	10.0	9.46	
37 Chlorobromomethane	128	7.899	7.899	0.000	50	139137	10.0	9.98	
36 Cyclohexane	84	7.899	7.899	0.000	89	902073	10.0	9.93	
38 Chloroform	83	7.955	7.955	0.000	93	749528	10.0	9.94	
39 Ethyl acetate	45	8.039	8.039	0.000	99	34550	20.0	20.4	
40 Carbon tetrachloride	117	8.108	8.108	0.000	97	755032	10.0	10.0	
41 Tetrahydrofuran	71	8.122	8.122	0.000	85	28498	20.0	20.9	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	303834	10.0	10.4	
43 1,1,1-Trichloroethane	97	8.178	8.178	0.000	98	859772	10.0	9.99	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	100	53245	10.0	10.4	
47 1,1-Dichloropropene	75	8.290	8.290	0.000	96	770244	10.0	10.3	
44 Isooctane	57	8.360	8.360	0.000	97	2130623	10.0	9.77	
46 n-Heptane	43	8.444	8.444	0.000	90	912851	10.0	9.82	
48 Benzene	78	8.527	8.527	0.000	96	1855074	10.0	10.0	
49 Propionitrile	54	8.555	8.555	0.000	93	155113	100.0	103.3	
50 Methacrylonitrile	41	8.569	8.569	0.000	92	914100	100.0	100.0	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	97	694608	10.0	10.2	
52 Isobutyl alcohol	42	8.667	8.667	0.000	93	68466	250.0	239.5	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.667	0.000	90	287095	10.0	9.85	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	371869	10.0	9.88	
* 55 Fluorobenzene	96	8.919	8.919	0.000	99	1688826	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	87	771202	10.0	9.75	
57 Trichloroethene	95	9.072	9.072	0.000	63	509988	10.0	9.92	
59 n-Butanol	56	9.310	9.310	0.000	91	71606	250.0	270.1	
61 Dibromomethane	93	9.477	9.477	0.000	96	138386	10.0	10.0	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	172280	10.0	10.2	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	363677	10.0	10.1	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	472112	10.0	10.5	
64 Methyl methacrylate	69	9.701	9.701	0.000	91	227283	20.0	21.3	
65 1,4-Dioxane	88	9.784	9.784	0.000	93	26534	200.0	217.4	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	94	69936	10.0	9.63	
67 cis-1,3-Dichloropropene	75	10.175	10.175	0.000	95	542306	10.0	10.4	
$ 68 Toluene-d8 (Surr)	98	10.343	10.343	0.000	93	1536516	10.0	9.84	
69 Toluene	92	10.385	10.385	0.000	98	1220999	10.0	10.0	
70 2-Nitropropane	43	10.608	10.608	0.000	99	78021	20.0	18.5	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	125629	10.0	10.5	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	76	402697	10.0	10.2	
73 Tetrachloroethene	164	10.748	10.748	0.000	98	448375	10.0	9.91	
74 Ethyl methacrylate	69	10.832	10.832	0.000	89	244621	10.0	10.8	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	170095	10.0	10.4	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	249127	10.0	10.2	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	370517	10.0	9.88	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	216712	10.0	10.2	
79 Ethylene Dibromide	107	11.321	11.321	0.000	98	181887	10.0	10.2	
80 2-Hexanone	43	11.432	11.432	0.000	95	87234	10.0	10.8	
81 1-Chlorohexane	91	11.698	11.698	0.000	97	784236	10.0	10.2	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	90	1100195	10.0	10.0	
82 Ethylbenzene	91	11.754	11.768	-0.014	96	2337324	10.0	9.99	
84 Chlorobenzene	112	11.768	11.782	-0.014	95	1152374	10.0	10.0	
85 1,1,1,2-Tetrachloroethane	131	11.823	11.823	0.000	94	375253	10.0	10.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	923145	10.0	10.1	
88 o-Xylene	106	12.284	12.284	0.000	98	820447	10.0	10.2	
89 Styrene	104	12.340	12.340	0.000	94	1227945	10.0	10.4	
90 Bromoform	173	12.410	12.410	0.000	97	124896	10.0	10.5	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	2452447	10.0	10.2	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	89	510456	10.0	9.91	
93 N-Propylbenzene	91	12.955	12.955	0.000	99	2846150	10.0	10.4	
94 Bromobenzene	156	12.983	12.983	0.000	96	428971	10.0	10.1	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	96	188158	10.0	10.3	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	1929762	10.0	10.4	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	1753694	10.0	10.2	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	62020	10.0	10.5	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	80	54231	10.0	10.7	
100 Cyclohexanone	55	13.248	13.248	0.000	91	35172	100.0	96.3	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	1571284	10.0	10.3	
102 tert-Butylbenzene	119	13.430	13.430	0.000	92	1796491	10.0	10.3	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	1874946	10.0	10.3	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	2740779	10.0	10.3	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	96	2266010	10.0	10.3	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	98	913308	10.0	10.2	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	97	1689004	10.0	10.3	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	69	507792	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	887282	10.0	10.3	
111 n-Butylbenzene	134	14.128	14.142	-0.014	97	586053	10.0	10.4	
110 Benzyl chloride	126	14.170	14.170	0.000	45	70441	10.0	10.4	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	97	732214	10.0	10.2	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	90	85167	10.0	8.42	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	82	32281	10.0	11.5	
114 1,3,5-Trichlorobenzene	180	15.175	15.175	0.000	97	632286	10.0	10.3	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	97	385930	10.0	10.8	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	166358	10.0	11.1	
118 Naphthalene	128	16.167	16.167	0.000	97	92949	10.0	11.1	
120 1,2,3-Trichlorobenzene	180	16.363	16.363	0.000	95	28258	10.0	11.7	

Reagents:

8260 Surr 25_00067	Amount Added: 10.00	Units: uL	
8260NewICVMix_00185	Amount Added: 10.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent

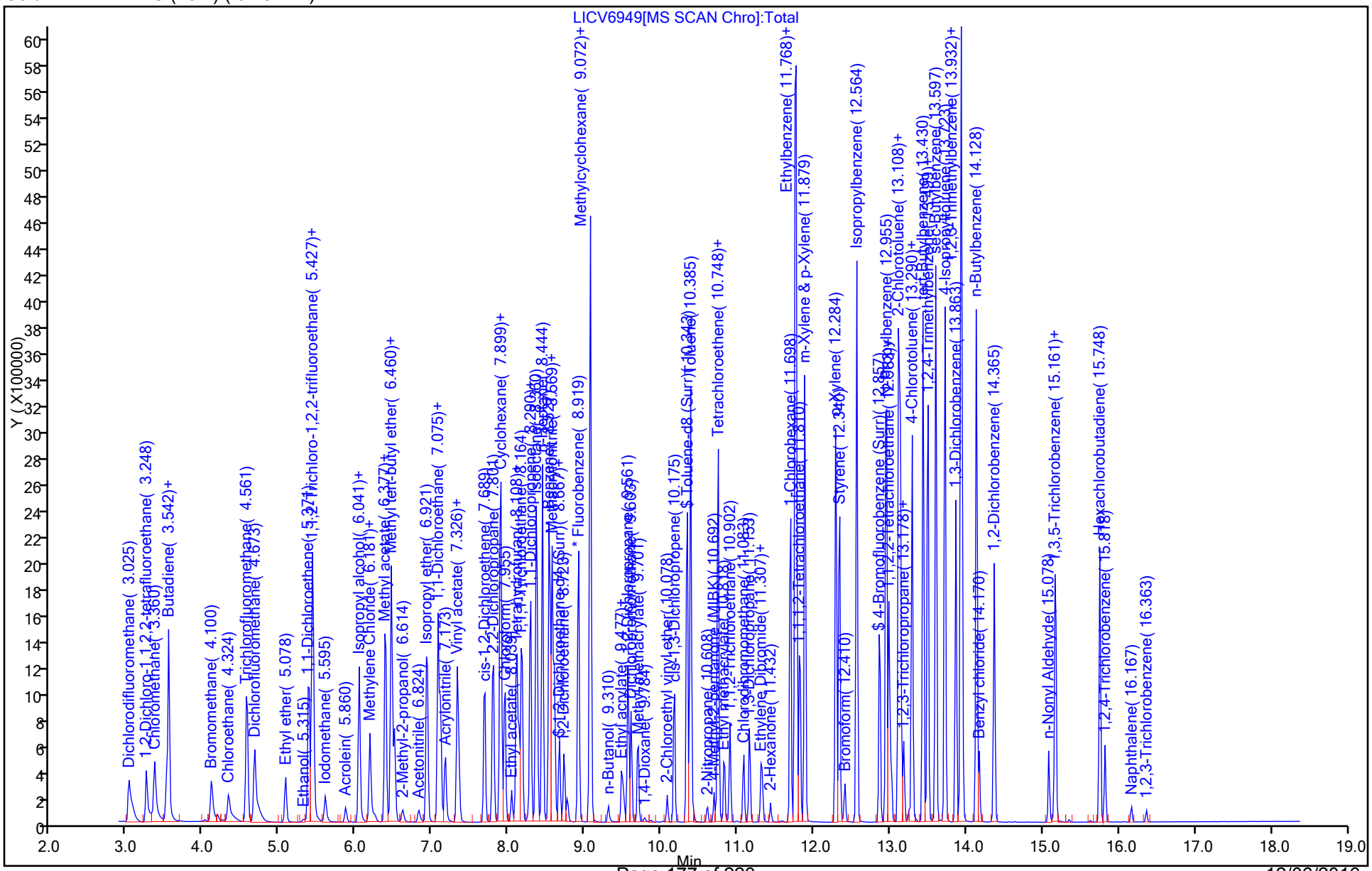
Report Date: 01-Dec-2016 13:46:02 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICV6949.D

Injection Date:	29-Nov-2016 17:38:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	icv			Worklist Smp#:	16
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: CCVIS 160-281852/2 Calibration Date: 12/01/2016 09:23

Instrument ID: VMSL Calib Start Date: 11/22/2016 09:13

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/22/2016 11:44

Lab File ID: LCCV6984.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Pentachloroethane	Ave	0.7330				10.0		

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LCCV6984.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-Dec-2016 09:23:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub18

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 01-Dec-2016 10:09:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	99	591567	10.0	9.34	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	98	273671	10.0	10.2	
3 Chloromethane	50	3.360	3.360	0.000	99	534327	10.0	9.55	
4 Vinyl chloride	62	3.514	3.514	0.000	98	530782	10.0	9.30	
5 Butadiene	39	3.541	3.541	0.000	95	569164	10.0	9.53	
6 Bromomethane	94	4.100	4.100	0.000	92	289228	10.0	9.43	
7 Chloroethane	64	4.324	4.324	0.000	99	307526	10.0	9.14	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	99	817534	10.0	9.56	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	858119	10.0	9.40	
10 Ethyl ether	74	5.078	5.078	0.000	92	145905	10.0	9.82	
11 Ethanol	45	5.315	5.315	0.000	100	42247	400.0	402.3	
12 1,1-Dichloroethene	96	5.371	5.371	0.000	98	441937	10.0	9.46	
13 Carbon disulfide	76	5.427	5.427	0.000	100	1515911	10.0	9.51	
14 1,1,2-Trichloro-1,2,2-trif	151	5.427	5.427	0.000	90	416533	10.0	9.72	
16 Iodomethane	142	5.595	5.595	0.000	100	249782	10.0	7.79	
17 Acrolein	56	5.860	5.860	0.000	99	104204	50.0	52.5	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	534306	10.0	9.41	
19 Isopropyl alcohol	45	6.069	6.069	0.000	97	66737	100.0	89.0	
20 Methylene Chloride	84	6.181	6.181	0.000	93	342790	10.0	9.77	
21 Acetone	43	6.251	6.251	0.000	98	40737	10.0	11.6	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	467066	10.0	9.59	
23 Methyl acetate	74	6.391	6.391	0.000	98	98576	50.0	51.2	
24 Hexane	86	6.460	6.460	0.000	93	166599	10.0	9.39	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	87	615234	10.0	9.95	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	97	99491	100.0	99.5	
27 Acetonitrile	41	6.824	6.824	0.000	99	123722	100.0	101.7	
28 Isopropyl ether	45	6.921	6.921	0.000	93	1029483	10.0	9.99	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	796206	10.0	9.70	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	96	752407	10.0	9.71	
31 Acrylonitrile	53	7.159	7.159	0.000	99	420822	100.0	104.2	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	832789	10.0	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Vinyl acetate	43	7.354	7.354	0.000	98	459696	10.0	10.2	
34 cis-1,2-Dichloroethene	96	7.675	7.675	0.000	80	443460	10.0	9.68	
35 2,2-Dichloropropane	77	7.787	7.787	0.000	92	741658	10.0	9.67	
37 Chlorobromomethane	128	7.885	7.885	0.000	94	142294	10.0	10.5	
36 Cyclohexane	84	7.885	7.885	0.000	91	827067	10.0	9.33	
38 Chloroform	83	7.941	7.941	0.000	94	714517	10.0	9.71	
39 Ethyl acetate	45	8.039	8.039	0.000	99	33893	20.0	20.5	
40 Carbon tetrachloride	117	8.094	8.094	0.000	98	710153	10.0	9.65	
41 Tetrahydrofuran	71	8.122	8.122	0.000	82	27737	20.0	20.9	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	95	308646	10.0	10.8	
43 1,1,1-Trichloroethane	97	8.164	8.164	0.000	97	809852	10.0	9.64	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	99	57006	10.0	11.4	
47 1,1-Dichloropropene	75	8.276	8.276	0.000	95	694477	10.0	9.52	
44 Isooctane	57	8.360	8.360	0.000	97	2027922	10.0	9.53	
46 n-Heptane	43	8.444	8.444	0.000	92	888263	10.0	9.79	
48 Benzene	78	8.527	8.527	0.000	96	1712239	10.0	9.50	
49 Propionitrile	54	8.555	8.555	0.000	91	154329	100.0	105.4	
50 Methacrylonitrile	41	8.569	8.569	0.000	90	934226	100.0	104.7	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	96	664246	10.0	10.0	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.653	8.653	0.000	91	293832	10.0	10.3	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	69917	250.0	250.7	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	364491	10.0	9.92	
* 55 Fluorobenzene	96	8.918	8.918	0.000	99	1647952	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	88	742131	10.0	9.62	
57 Trichloroethene	95	9.072	9.072	0.000	68	488510	10.0	9.73	
59 n-Butanol	56	9.310	9.310	0.000	91	70411	250.0	272.2	
61 Dibromomethane	93	9.477	9.477	0.000	95	137753	10.0	10.2	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	167802	10.0	10.2	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	345162	10.0	9.85	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	436893	10.0	9.98	
64 Methyl methacrylate	69	9.687	9.687	0.000	92	216234	20.0	20.7	
65 1,4-Dioxane	88	9.784	9.784	0.000	94	25684	200.0	215.7	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	95	64271	10.0	9.07	
67 cis-1,3-Dichloropropene	75	10.161	10.161	0.000	95	513671	10.0	10.1	
$ 68 Toluene-d8 (Surr)	98	10.329	10.329	0.000	94	1536546	10.0	10.1	
69 Toluene	92	10.385	10.385	0.000	98	1145300	10.0	9.60	
70 2-Nitropropane	43	10.594	10.594	0.000	99	75350	20.0	18.3	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	121282	10.0	10.4	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	78	396109	10.0	10.3	
73 Tetrachloroethene	164	10.748	10.748	0.000	98	444545	10.0	10.0	
74 Ethyl methacrylate	69	10.818	10.818	0.000	90	230356	10.0	10.4	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	162706	10.0	10.2	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	249391	10.0	10.5	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	364534	10.0	9.94	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	213409	10.0	10.3	
79 Ethylene Dibromide	107	11.321	11.321	0.000	99	178057	10.0	10.2	
80 2-Hexanone	43	11.432	11.432	0.000	95	85388	10.0	10.8	
81 1-Chlorohexane	91	11.698	11.698	0.000	98	732761	10.0	9.79	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	66	1075702	10.0	10.0	
82 Ethylbenzene	91	11.754	11.754	0.000	97	2217975	10.0	9.69	
84 Chlorobenzene	112	11.768	11.768	0.000	89	1108916	10.0	9.85	
85 1,1,1,2-Tetrachloroethane	131	11.810	11.810	0.000	94	358299	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	873379	10.0	9.76	
88 o-Xylene	106	12.284	12.284	0.000	97	777533	10.0	9.85	
89 Styrene	104	12.340	12.340	0.000	94	1153626	10.0	9.97	
90 Bromoform	173	12.410	12.410	0.000	98	124595	10.0	10.4	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	2321294	10.0	9.56	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	87	500102	10.0	9.58	
93 N-Propylbenzene	91	12.941	12.941	0.000	98	2683689	10.0	9.66	
94 Bromobenzene	156	12.983	12.983	0.000	94	425561	10.0	9.89	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	97	183770	10.0	9.90	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	1822430	10.0	9.65	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	1650780	10.0	9.43	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	61394	10.0	10.3	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	84	52528	10.0	10.2	
100 Cyclohexanone	55	13.248	13.248	0.000	84	36594	100.0	98.9	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	1465796	10.0	9.49	
102 tert-Butylbenzene	119	13.430	13.430	0.000	93	1714098	10.0	9.67	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	1785236	10.0	9.65	
87 Pentachloroethane	167		13.558				ND	ND	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	2624049	10.0	9.73	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	2192965	10.0	9.86	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	98	895749	10.0	9.84	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	97	1608752	10.0	9.70	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	71	514718	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	860035	10.0	9.83	
111 n-Butylbenzene	134	14.128	14.128	0.000	97	566627	10.0	9.94	
110 Benzyl chloride	126	14.170	14.170	0.000	14	77640	10.0	11.3	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	98	720677	10.0	9.95	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	89	103584	10.0	9.89	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	82	31171	10.0	10.9	
114 1,3,5-Trichlorobenzene	180	15.161	15.161	0.000	97	628600	10.0	10.1	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	374844	10.0	10.3	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	164569	10.0	10.9	
118 Naphthalene	128	16.167	16.167	0.000	97	85489	10.0	10.1	
120 1,2,3-Trichlorobenzene	180	16.362	16.362	0.000	95	26352	10.0	10.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

8260 NewWkMix_00194	Amount Added: 10.00	Units: uL	
Penta Work._00046	Amount Added: 10.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

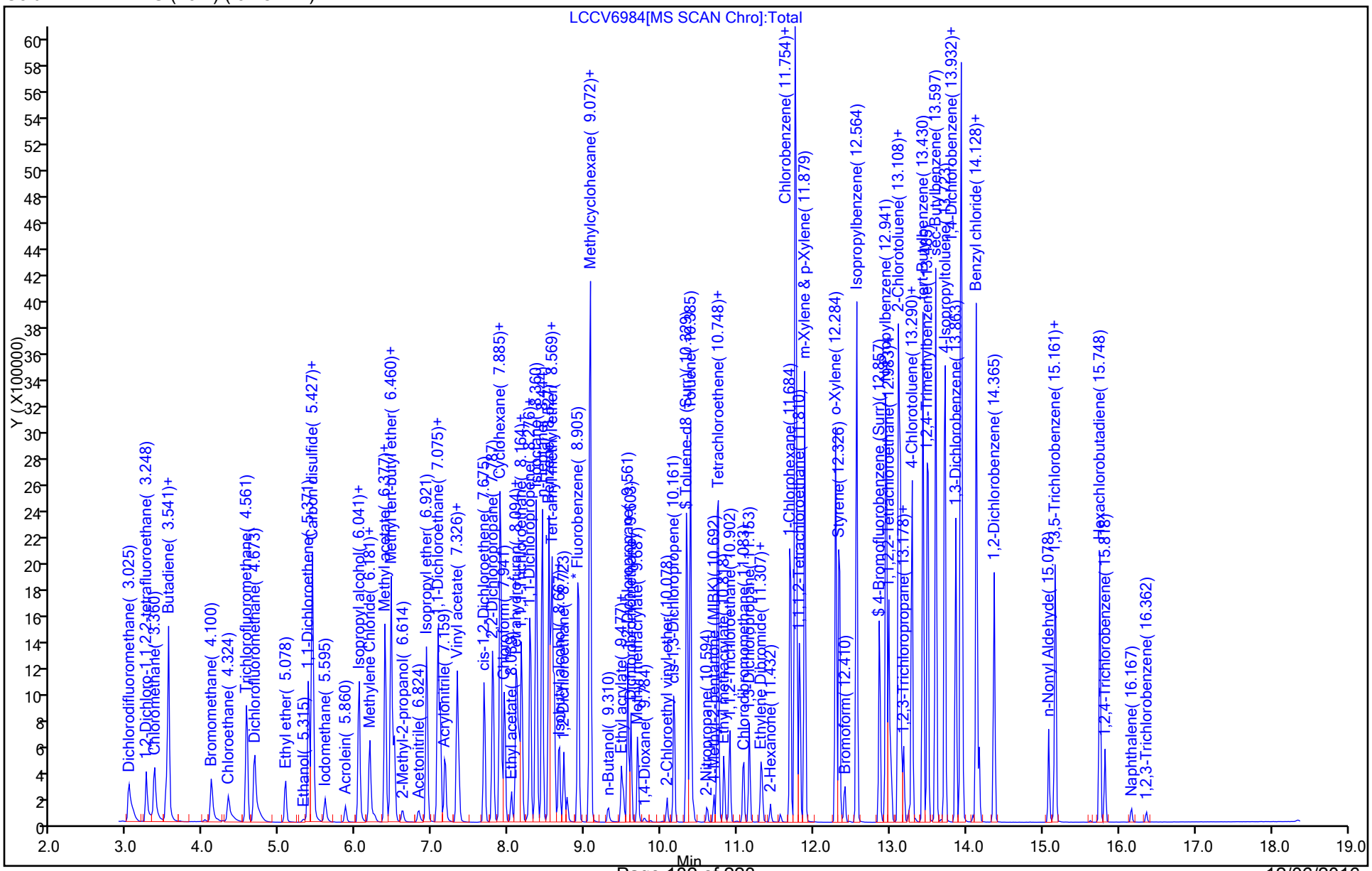
Report Date: 02-Dec-2016 09:43:51 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LCCV6984.D

Injection Date:	01-Dec-2016 09:23:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: CCVIS 160-281852/2 Calibration Date: 12/01/2016 09:23

Instrument ID: VMSL Calib Start Date: 11/29/2016 14:17

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/29/2016 16:48

Lab File ID: LCCV6984.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3843	0.3590	0.1000	9.34	10.0	-6.6	20.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1625	0.1661	0.0100	10.2	10.0	2.2	20.0
Chloromethane	Ave	0.3395	0.3242	0.1000	9.55	10.0	-4.5	20.0
Vinyl chloride	Ave	0.3465	0.3221	0.1000	9.30	10.0	-7.0	20.0
Butadiene	Ave	0.3625	0.3454	0.0100	9.53	10.0	-4.7	20.0
Methyl bromide	Ave	0.1862	0.1755	0.1000	9.43	10.0	-5.7	20.0
Chloroethane	Ave	0.2041	0.1866	0.1000	9.14	10.0	-8.6	20.0
Trichlorofluoromethane	Ave	0.5191	0.4961	0.1000	9.56	10.0	-4.4	20.0
Dichlorofluoromethane	Ave	0.5541	0.5207	0.0100	9.40	10.0	-6.0	20.0
Ethyl ether	Ave	0.0902	0.0885	0.0100	9.82	10.0	-1.8	20.0
Ethanol	Lin1		0.0006*	0.0010	402	400	0.6	20.0
1,1-Dichloroethene	Ave	0.2834	0.2682	0.1000	9.46	10.0	-5.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2599	0.2528	0.1000	9.72	10.0	-2.8	20.0
Carbon disulfide	Ave	0.9676	0.9199	0.1000	9.51	10.0	-4.9	20.0
Iodomethane	Lin1		0.1516	0.0100	7.79	10.0	-22.1*	20.0
Acrolein	Ave	0.0120	0.0127	0.0010	52.5	50.0	5.1	20.0
Allyl chloride	Ave	0.3446	0.3242	0.0100	9.41	10.0	-5.9	20.0
Isopropyl alcohol	Ave	0.0046	0.0041*	0.0100	89.0	100	-11.0	20.0
Methylene Chloride	Ave	0.2130	0.2080	0.1000	9.77	10.0	-2.3	20.0
Acetone	Lin2		0.0247*	0.1000	11.6	10.0	16.1	20.0
trans-1,2-Dichloroethene	Ave	0.2954	0.2834	0.1000	9.59	10.0	-4.1	20.0
Methyl acetate	Ave	0.0117	0.0120*	0.1000	51.2	50.0	2.5	20.0
Hexane	Ave	0.1077	0.1011	0.0100	9.39	10.0	-6.1	20.0
Methyl tert-butyl ether	Ave	0.3751	0.3733	0.1000	9.95	10.0	-0.5	20.0
tert-Butyl alcohol	Ave	0.0061	0.0060*	0.0100	99.5	100	-0.5	20.0
Acetonitrile	Lin1		0.0075	0.0010	102	100	1.7	20.0
Isopropyl ether	Ave	0.6256	0.6247	0.0100	9.99	10.0	-0.1	20.0
2-Chloro-1,3-butadiene	Ave	0.4982	0.4832	0.0100	9.70	10.0	-3.0	20.0
1,1-Dichloroethane	Ave	0.4701	0.4566	0.2000	9.71	10.0	-2.9	20.0
Acrylonitrile	Ave	0.0245	0.0255	0.0100	104	100	4.2	20.0
Tert-butyl ethyl ether	Ave	0.5040	0.5054	0.0100	10.0	10.0	0.3	20.0
Vinyl acetate	Ave	0.2746	0.2790	0.0100	10.2	10.0	1.6	20.0
cis-1,2-Dichloroethene	Ave	0.2780	0.2691	0.1000	9.68	10.0	-3.2	20.0
2,2-Dichloropropane	Ave	0.4655	0.4501	0.0100	9.67	10.0	-3.3	20.0
Bromochloromethane	Ave	0.0826	0.0864	0.0100	10.5	10.0	4.6	20.0
Cyclohexane	Ave	0.5380	0.5019	0.1000	9.33	10.0	-6.7	20.0
Chloroform	Ave	0.4464	0.4336	0.2000	9.71	10.0	-2.9	20.0
Ethyl acetate	Ave	0.0100	0.0103	0.0100	20.5	20.0	2.7	20.0
Carbon tetrachloride	Ave	0.4466	0.4309	0.1000	9.65	10.0	-3.5	20.0
Tetrahydrofuran	Ave	0.0081	0.0084	0.0010	20.9	20.0	4.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: CCVIS 160-281852/2 Calibration Date: 12/01/2016 09:23

Instrument ID: VMSL Calib Start Date: 11/29/2016 14:17

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/29/2016 16:48

Lab File ID: LCCV6984.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,1-Trichloroethane	Ave	0.5096	0.4914	0.1000	9.64	10.0	-3.6	20.0
2-Butanone	Lin1		0.0346*	0.1000	11.4	10.0	14.4	20.0
1,1-Dichloropropene	Ave	0.4427	0.4214	0.0100	9.52	10.0	-4.8	20.0
Isooctane	Ave	1.291	1.231	0.0100	9.53	10.0	-4.7	20.0
n-Heptane	Ave	0.5504	0.5390	0.0100	9.79	10.0	-2.1	20.0
Benzene	Ave	1.094	1.039	0.5000	9.50	10.0	-5.0	20.0
Propionitrile	Ave	0.0089	0.0094	0.0010	105	100	5.4	20.0
Methacrylonitrile	Ave	0.0541	0.0567	0.0100	105	100	4.7	20.0
Tert-amyl methyl ether	Ave	0.4033	0.4031	0.0100	9.99	10.0	-0.0	20.0
Isobutanol	Ave	0.0017	0.0017	0.0010	251	250	0.3	20.0
1,2-Dichloroethane	Ave	0.2229	0.2212	0.1000	9.92	10.0	-0.8	20.0
Methylcyclohexane	Ave	0.4682	0.4503	0.1000	9.62	10.0	-3.8	20.0
Trichloroethene	Ave	0.3045	0.2964	0.2000	9.73	10.0	-2.7	20.0
n-Butanol	Ave	0.0016	0.0017*	0.0100	272	250	8.9	20.0
Dibromomethane	Ave	0.0817	0.0836	0.0100	10.2	10.0	2.3	20.0
Ethyl acrylate	Ave	0.1001	0.1018	0.0100	10.2	10.0	1.7	20.0
1,2-Dichloropropane	Ave	0.2126	0.2095	0.1000	9.85	10.0	-1.5	20.0
Bromodichloromethane	Ave	0.2655	0.2651	0.2000	9.98	10.0	-0.2	20.0
Methyl methacrylate	Ave	0.0633	0.0656	0.0100	20.7	20.0	3.7	20.0
1,4-Dioxane	Ave	0.0007	0.0008*	0.0010	216	200	7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.0430	0.0390	0.0100	9.07	10.0	-9.3	20.0
cis-1,3-Dichloropropene	Ave	0.3100	0.3117	0.2000	10.1	10.0	0.6	20.0
Toluene	Ave	1.109	1.065	0.4000	9.60	10.0	-4.0	20.0
2-Nitropropane	Ave	0.0383	0.0350	0.0100	18.3	20.0	-8.5	20.0
4-Methyl-2-pentanone	Ave	0.1088	0.1128	0.1000	10.4	10.0	3.6	20.0
Tetrachloroethene	Ave	0.4114	0.4133	0.2000	10.0	10.0	0.4	20.0
trans-1,3-Dichloropropene	Ave	0.3589	0.3682	0.1000	10.3	10.0	2.6	20.0
Ethyl methacrylate	Ave	0.2068	0.2141	0.0100	10.4	10.0	3.6	20.0
1,1,2-Trichloroethane	Ave	0.1488	0.1513	0.1000	10.2	10.0	1.7	20.0
Chlorodibromomethane	Ave	0.2213	0.2318	0.1000	10.5	10.0	4.7	20.0
1,3-Dichloropropane	Ave	0.3410	0.3389	0.0100	9.94	10.0	-0.6	20.0
n-Butyl acetate	Ave	0.1932	0.1984	0.0100	10.3	10.0	2.7	20.0
1,2-Dibromoethane	Ave	0.1621	0.1655	0.1000	10.2	10.0	2.1	20.0
2-Hexanone	Lin1		0.0794*	0.1000	10.8	10.0	8.4	20.0
Ethylbenzene	Ave	2.127	2.062	0.1000	9.69	10.0	-3.1	20.0
Chlorobenzene	Ave	1.046	1.031	0.5000	9.85	10.0	-1.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3267	0.3331	0.0100	10.2	10.0	2.0	20.0
m-Xylene & p-Xylene	Ave	0.8316	0.8119	0.1000	9.76	10.0	-2.4	20.0
o-Xylene	Ave	0.7339	0.7228	0.3000	9.85	10.0	-1.5	20.0
Styrene	Ave	1.075	1.072	0.3000	9.97	10.0	-0.3	20.0
Bromoform	Ave	0.2337	0.2421	0.1000	10.4	10.0	3.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Lab Sample ID: CCVIS 160-281852/2 Calibration Date: 12/01/2016 09:23

Instrument ID: VMSL Calib Start Date: 11/29/2016 14:17

GC Column: RTX-VMS40 ID: 0.18(mm) Calib End Date: 11/29/2016 16:48

Lab File ID: LCCV6984.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropylbenzene	Ave	4.719	4.510	0.1000	9.56	10.0	-4.4	20.0
N-Propylbenzene	Ave	5.399	5.214	0.0100	9.66	10.0	-3.4	20.0
Bromobenzene	Ave	0.8357	0.8268	0.0100	9.89	10.0	-1.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.3607	0.3570	0.3000	9.90	10.0	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	3.668	3.541	0.0100	9.65	10.0	-3.5	20.0
2-Chlorotoluene	Ave	3.399	3.207	0.0100	9.43	10.0	-5.7	20.0
1,2,3-Trichloropropane	Ave	0.1160	0.1193	0.0100	10.3	10.0	2.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.0996	0.1021	0.0100	10.2	10.0	2.5	20.0
Cyclohexanone	Ave	0.0072	0.0071	0.0010	98.9	100	-1.1	20.0
4-Chlorotoluene	Ave	3.001	2.848	0.0100	9.49	10.0	-5.1	20.0
tert-Butylbenzene	Ave	3.444	3.330	0.0100	9.67	10.0	-3.3	20.0
1,2,4-Trimethylbenzene	Ave	3.595	3.468	0.0100	9.65	10.0	-3.5	20.0
sec-Butylbenzene	Ave	5.239	5.098	0.0100	9.73	10.0	-2.7	20.0
4-Isopropyltoluene	Ave	4.322	4.261	0.0100	9.86	10.0	-1.4	20.0
1,3-Dichlorobenzene	Ave	1.768	1.740	0.6000	9.84	10.0	-1.6	20.0
1,2,3-Trimethylbenzene	Ave	3.223	3.126	0.0100	9.70	10.0	-3.0	20.0
1,4-Dichlorobenzene	Ave	1.699	1.671	0.5000	9.83	10.0	-1.7	20.0
n-Butylbenzene	Ave	1.107	1.101	0.0100	9.94	10.0	-0.6	20.0
Benzyl chloride	Ave	0.1334	0.1508	0.0100	11.3	10.0	13.1	20.0
1,2-Dichlorobenzene	Ave	1.408	1.400	0.4000	9.95	10.0	-0.5	20.0
Nonanal	Lin		0.2012	0.0100	9.89	10.0	-1.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0554	0.0606	0.0500	10.9	10.0	9.4	20.0
1,3,5-Trichlorobenzene	Ave	1.206	1.221	0.0100	10.1	10.0	1.3	20.0
Hexachlorobutadiene	Ave	0.7043	0.7283	0.0100	10.3	10.0	3.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2941	0.3197	0.2000	10.9	10.0	8.7	20.0
Naphthalene	Ave	0.1652	0.1661	0.0100	10.1	10.0	0.5	20.0
1,2,3-Trichlorobenzene	Lin1		0.0512	0.0100	10.8	10.0	8.1	20.0
Dibromofluoromethane (Surr)	Ave	0.1736	0.1873	0.0100	10.8	10.0	7.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.1726	0.1783	0.0100	10.3	10.0	3.3	20.0
Toluene-d8 (Surr)	Ave	1.420	1.428	0.0100	10.1	10.0	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	1.014	0.9716	0.0100	9.58	10.0	-4.2	20.0

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LCCV6984.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-Dec-2016 09:23:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: SMCR Instrument ID: VMSL
Sublist: chrom-25mL-8260-MSL*sub18

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 01-Dec-2016 10:09:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	99	591567	10.0	9.34	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	98	273671	10.0	10.2	
3 Chloromethane	50	3.360	3.360	0.000	99	534327	10.0	9.55	
4 Vinyl chloride	62	3.514	3.514	0.000	98	530782	10.0	9.30	
5 Butadiene	39	3.541	3.541	0.000	95	569164	10.0	9.53	
6 Bromomethane	94	4.100	4.100	0.000	92	289228	10.0	9.43	
7 Chloroethane	64	4.324	4.324	0.000	99	307526	10.0	9.14	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	99	817534	10.0	9.56	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	858119	10.0	9.40	
10 Ethyl ether	74	5.078	5.078	0.000	92	145905	10.0	9.82	
11 Ethanol	45	5.315	5.315	0.000	100	42247	400.0	402.3	
12 1,1-Dichloroethene	96	5.371	5.371	0.000	98	441937	10.0	9.46	
13 Carbon disulfide	76	5.427	5.427	0.000	100	1515911	10.0	9.51	
14 1,1,2-Trichloro-1,2,2-trif	151	5.427	5.427	0.000	90	416533	10.0	9.72	
16 Iodomethane	142	5.595	5.595	0.000	100	249782	10.0	7.79	
17 Acrolein	56	5.860	5.860	0.000	99	104204	50.0	52.5	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	534306	10.0	9.41	
19 Isopropyl alcohol	45	6.069	6.069	0.000	97	66737	100.0	89.0	
20 Methylene Chloride	84	6.181	6.181	0.000	93	342790	10.0	9.77	
21 Acetone	43	6.251	6.251	0.000	98	40737	10.0	11.6	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	467066	10.0	9.59	
23 Methyl acetate	74	6.391	6.391	0.000	98	98576	50.0	51.2	
24 Hexane	86	6.460	6.460	0.000	93	166599	10.0	9.39	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	87	615234	10.0	9.95	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	97	99491	100.0	99.5	
27 Acetonitrile	41	6.824	6.824	0.000	99	123722	100.0	101.7	
28 Isopropyl ether	45	6.921	6.921	0.000	93	1029483	10.0	9.99	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	796206	10.0	9.70	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	96	752407	10.0	9.71	
31 Acrylonitrile	53	7.159	7.159	0.000	99	420822	100.0	104.2	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	832789	10.0	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Vinyl acetate	43	7.354	7.354	0.000	98	459696	10.0	10.2	
34 cis-1,2-Dichloroethene	96	7.675	7.675	0.000	80	443460	10.0	9.68	
35 2,2-Dichloropropane	77	7.787	7.787	0.000	92	741658	10.0	9.67	
37 Chlorobromomethane	128	7.885	7.885	0.000	94	142294	10.0	10.5	
36 Cyclohexane	84	7.885	7.885	0.000	91	827067	10.0	9.33	
38 Chloroform	83	7.941	7.941	0.000	94	714517	10.0	9.71	
39 Ethyl acetate	45	8.039	8.039	0.000	99	33893	20.0	20.5	
40 Carbon tetrachloride	117	8.094	8.094	0.000	98	710153	10.0	9.65	
41 Tetrahydrofuran	71	8.122	8.122	0.000	82	27737	20.0	20.9	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	95	308646	10.0	10.8	
43 1,1,1-Trichloroethane	97	8.164	8.164	0.000	97	809852	10.0	9.64	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	99	57006	10.0	11.4	
47 1,1-Dichloropropene	75	8.276	8.276	0.000	95	694477	10.0	9.52	
44 Isooctane	57	8.360	8.360	0.000	97	2027922	10.0	9.53	
46 n-Heptane	43	8.444	8.444	0.000	92	888263	10.0	9.79	
48 Benzene	78	8.527	8.527	0.000	96	1712239	10.0	9.50	
49 Propionitrile	54	8.555	8.555	0.000	91	154329	100.0	105.4	
50 Methacrylonitrile	41	8.569	8.569	0.000	90	934226	100.0	104.7	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	96	664246	10.0	10.0	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.653	8.653	0.000	91	293832	10.0	10.3	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	69917	250.0	250.7	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	364491	10.0	9.92	
* 55 Fluorobenzene	96	8.918	8.918	0.000	99	1647952	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	88	742131	10.0	9.62	
57 Trichloroethene	95	9.072	9.072	0.000	68	488510	10.0	9.73	
59 n-Butanol	56	9.310	9.310	0.000	91	70411	250.0	272.2	
61 Dibromomethane	93	9.477	9.477	0.000	95	137753	10.0	10.2	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	167802	10.0	10.2	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	345162	10.0	9.85	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	436893	10.0	9.98	
64 Methyl methacrylate	69	9.687	9.687	0.000	92	216234	20.0	20.7	
65 1,4-Dioxane	88	9.784	9.784	0.000	94	25684	200.0	215.7	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	95	64271	10.0	9.07	
67 cis-1,3-Dichloropropene	75	10.161	10.161	0.000	95	513671	10.0	10.1	
$ 68 Toluene-d8 (Surr)	98	10.329	10.329	0.000	94	1536546	10.0	10.1	
69 Toluene	92	10.385	10.385	0.000	98	1145300	10.0	9.60	
70 2-Nitropropane	43	10.594	10.594	0.000	99	75350	20.0	18.3	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	121282	10.0	10.4	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	78	396109	10.0	10.3	
73 Tetrachloroethene	164	10.748	10.748	0.000	98	444545	10.0	10.0	
74 Ethyl methacrylate	69	10.818	10.818	0.000	90	230356	10.0	10.4	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	162706	10.0	10.2	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	249391	10.0	10.5	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	364534	10.0	9.94	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	213409	10.0	10.3	
79 Ethylene Dibromide	107	11.321	11.321	0.000	99	178057	10.0	10.2	
80 2-Hexanone	43	11.432	11.432	0.000	95	85388	10.0	10.8	
81 1-Chlorohexane	91	11.698	11.698	0.000	98	732761	10.0	9.79	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	66	1075702	10.0	10.0	
82 Ethylbenzene	91	11.754	11.754	0.000	97	2217975	10.0	9.69	
84 Chlorobenzene	112	11.768	11.768	0.000	89	1108916	10.0	9.85	
85 1,1,1,2-Tetrachloroethane	131	11.810	11.810	0.000	94	358299	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	873379	10.0	9.76	
88 o-Xylene	106	12.284	12.284	0.000	97	777533	10.0	9.85	
89 Styrene	104	12.340	12.340	0.000	94	1153626	10.0	9.97	
90 Bromoform	173	12.410	12.410	0.000	98	124595	10.0	10.4	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	2321294	10.0	9.56	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	87	500102	10.0	9.58	
93 N-Propylbenzene	91	12.941	12.941	0.000	98	2683689	10.0	9.66	
94 Bromobenzene	156	12.983	12.983	0.000	94	425561	10.0	9.89	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	97	183770	10.0	9.90	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	1822430	10.0	9.65	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	1650780	10.0	9.43	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	61394	10.0	10.3	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	84	52528	10.0	10.2	
100 Cyclohexanone	55	13.248	13.248	0.000	84	36594	100.0	98.9	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	1465796	10.0	9.49	
102 tert-Butylbenzene	119	13.430	13.430	0.000	93	1714098	10.0	9.67	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	1785236	10.0	9.65	
87 Pentachloroethane	167		13.558				ND	ND	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	2624049	10.0	9.73	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	2192965	10.0	9.86	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	98	895749	10.0	9.84	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	97	1608752	10.0	9.70	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	71	514718	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	860035	10.0	9.83	
111 n-Butylbenzene	134	14.128	14.128	0.000	97	566627	10.0	9.94	
110 Benzyl chloride	126	14.170	14.170	0.000	14	77640	10.0	11.3	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	98	720677	10.0	9.95	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	89	103584	10.0	9.89	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	82	31171	10.0	10.9	
114 1,3,5-Trichlorobenzene	180	15.161	15.161	0.000	97	628600	10.0	10.1	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	98	374844	10.0	10.3	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	164569	10.0	10.9	
118 Naphthalene	128	16.167	16.167	0.000	97	85489	10.0	10.1	
120 1,2,3-Trichlorobenzene	180	16.362	16.362	0.000	95	26352	10.0	10.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

8260 NewWkMix_00194	Amount Added: 10.00	Units: uL	
Penta Work._00046	Amount Added: 10.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

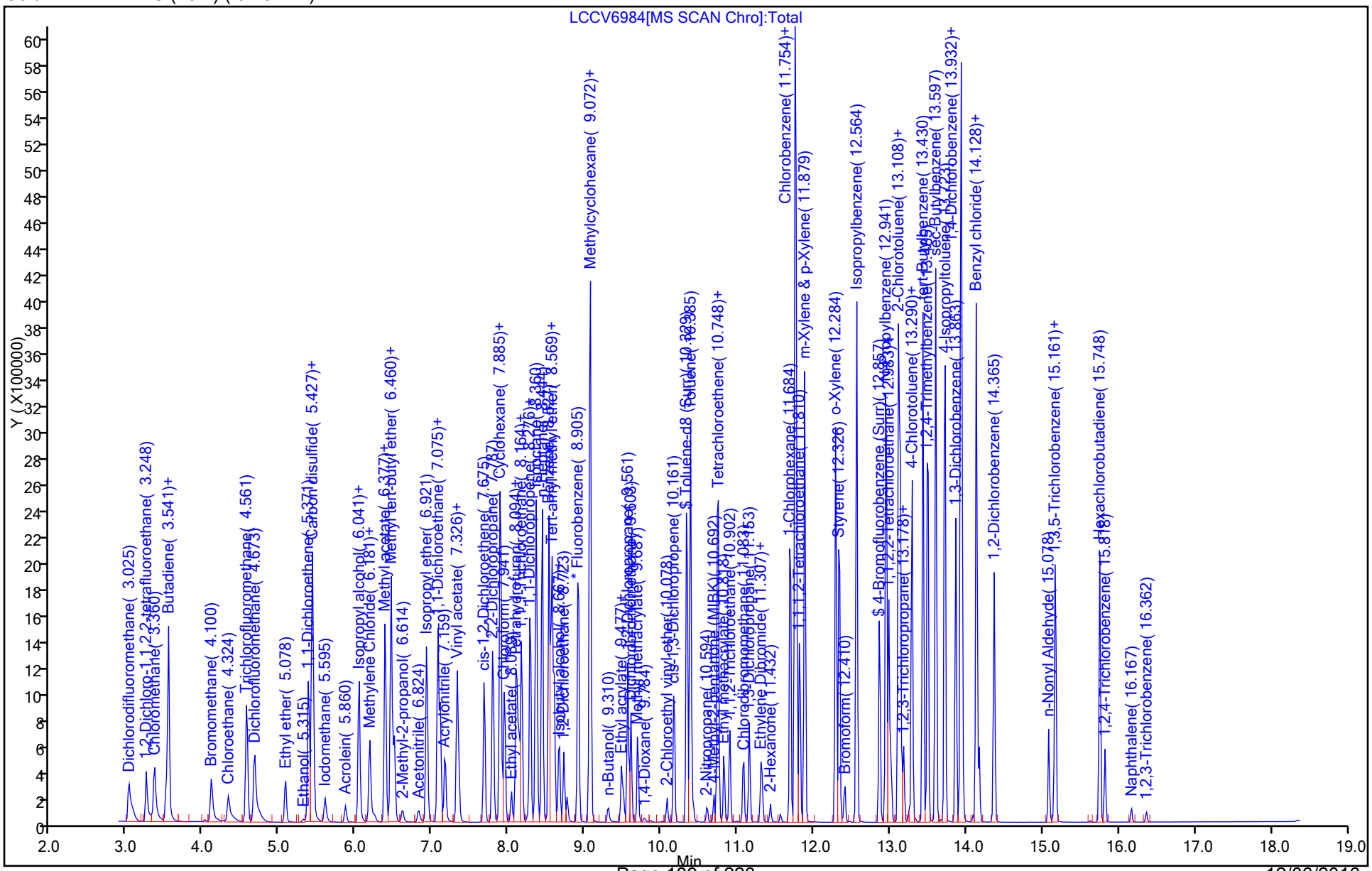
Report Date: 02-Dec-2016 09:43:51 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LCCV6984.D

Injection Date:	01-Dec-2016 09:23:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LBFB6939.D
Lims ID: bfb
Client ID:
Sample Type: BFB
Inject. Date: 29-Nov-2016 13:25:30 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 2.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: BFB
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 01-Dec-2016 13:45:59 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 124 BFB	95	4.043	4.043	0.000	0	1317202	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

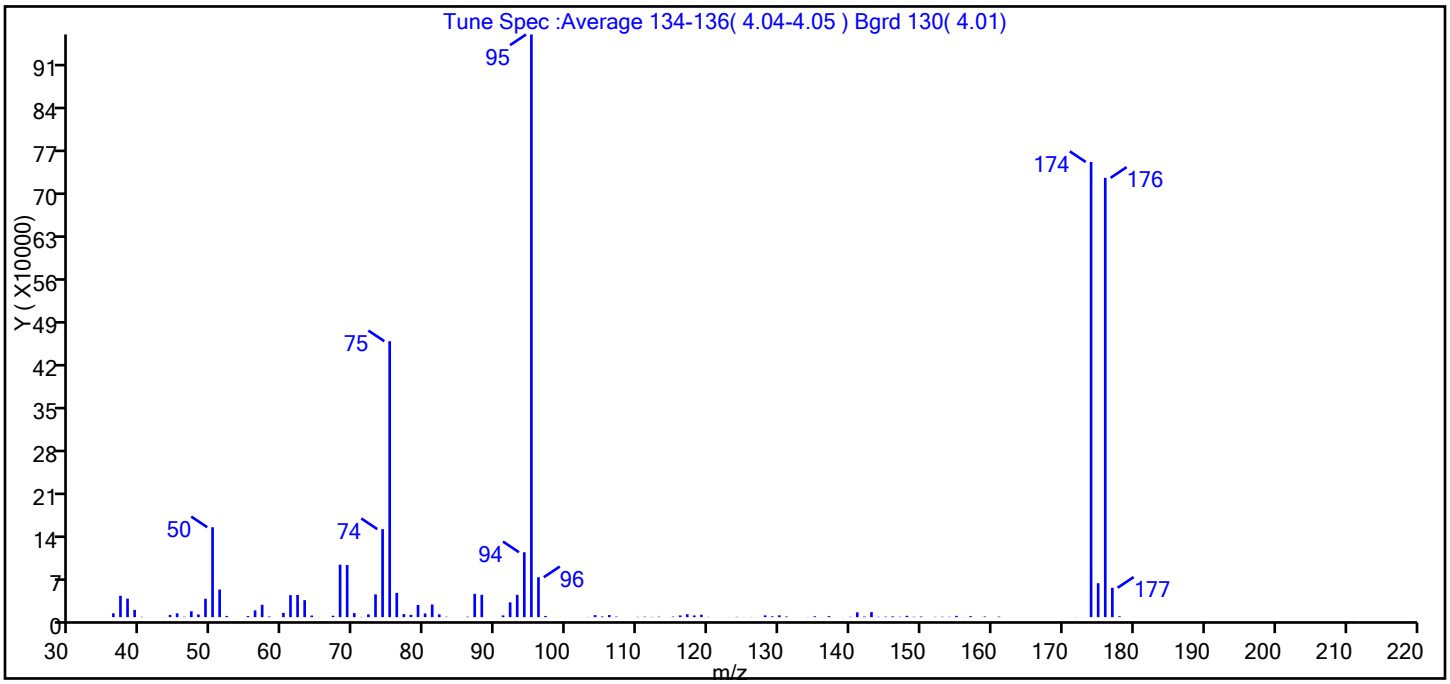
BFB_00064 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LBFB6939.D
Injection Date: 29-Nov-2016 13:25:30 Instrument ID: VMSL
Lims ID: bfb
Client ID:
Operator ID: SMCR ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 2.0 uL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Tune Method: BFB Method 8260

$ 124 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.4
75	30 to 60% of m/z 95	47.4
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	78.1
175	5 to 9% of m/z 174	5.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	75.4 (96.5)
177	5 to 9% of m/z 176	5.0 (6.7)

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LBFB6939.D\25mL-8260-MSL.rslt\spectra.d
Injection Date: 29-Nov-2016 13:25:30
Spectrum: Tune Spec :Average 134-136(4.04-4.05) Bgrd 130(4.01)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6304	68.00	85856	105.00	1155	141.00	7852
37.00	35000	69.00	85232	106.00	3358	142.00	948
38.00	30280	70.00	6565	107.00	825	143.00	8205
39.00	11830	71.00	384	110.00	478	144.00	542
40.00	521	72.00	4525	111.00	731	145.00	807
41.00	147	73.00	37232	112.00	446	146.00	1248
43.00	193	74.00	144000	113.00	714	147.00	585
44.00	3647	75.00	451328	115.00	862	148.00	2163
45.00	6194	76.00	39664	116.00	2801	149.00	637
46.00	640	77.00	4948	117.00	4753	150.00	1020
47.00	9562	78.00	3798	118.00	2777	152.00	474
48.00	4341	79.00	19960	119.00	3947	153.00	639
49.00	30112	80.00	5947	120.00	375	154.00	536
50.00	147072	81.00	20736	123.00	151	155.00	2094
51.00	45216	82.00	4531	124.00	493	156.00	212
52.00	2044	83.00	615	125.00	197	157.00	1607
55.00	1761	86.00	805	126.00	297	159.00	1024
56.00	11022	87.00	38144	127.00	119	161.00	917
57.00	20232	88.00	36624	128.00	2874	172.00	250
58.00	1025	91.00	2787	129.00	1379	174.00	744512
59.00	61	92.00	24200	130.00	2984	175.00	55504
60.00	6940	93.00	36520	131.00	1091	176.00	718592
61.00	35984	94.00	106168	134.00	243	177.00	48104
62.00	36216	95.00	953088	135.00	1426	178.00	1378
63.00	27808	96.00	65304	136.00	129	207.00	73
64.00	2618	97.00	1983	137.00	1665	211.00	123
65.00	273	103.00	328	139.00	138		
67.00	2267	104.00	3294	140.00	570		

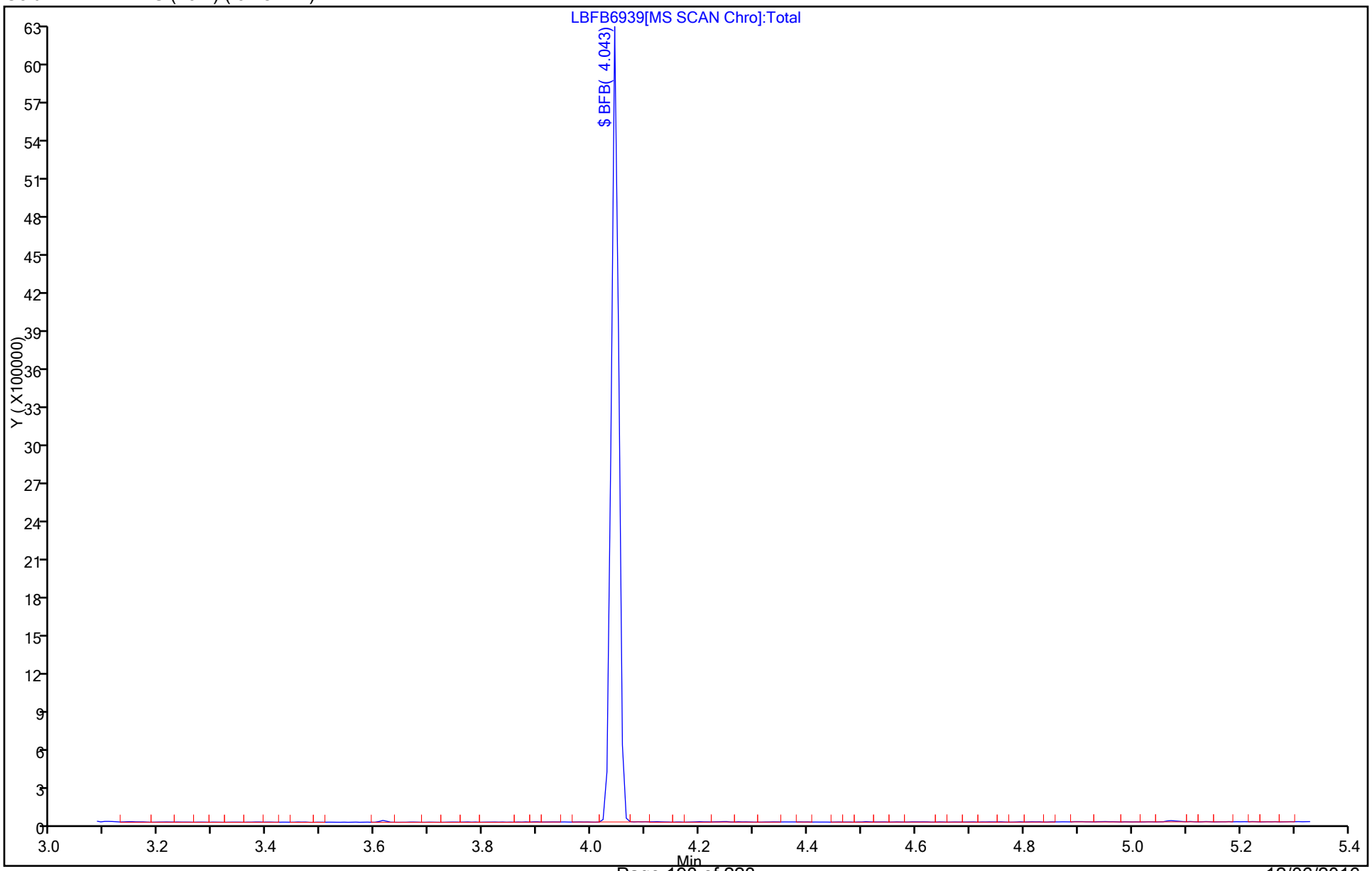
Report Date: 01-Dec-2016 13:46:00 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LBFB6939.D

Injection Date:	29-Nov-2016 13:25:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	bfb			Worklist Smp#:	4
Client ID:					
Injection Vol:	2.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBFB6983.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 01-Dec-2016 08:59:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 2.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: BFB
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:47 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 124 BFB	95	4.036	4.036	0.000	0	675599	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

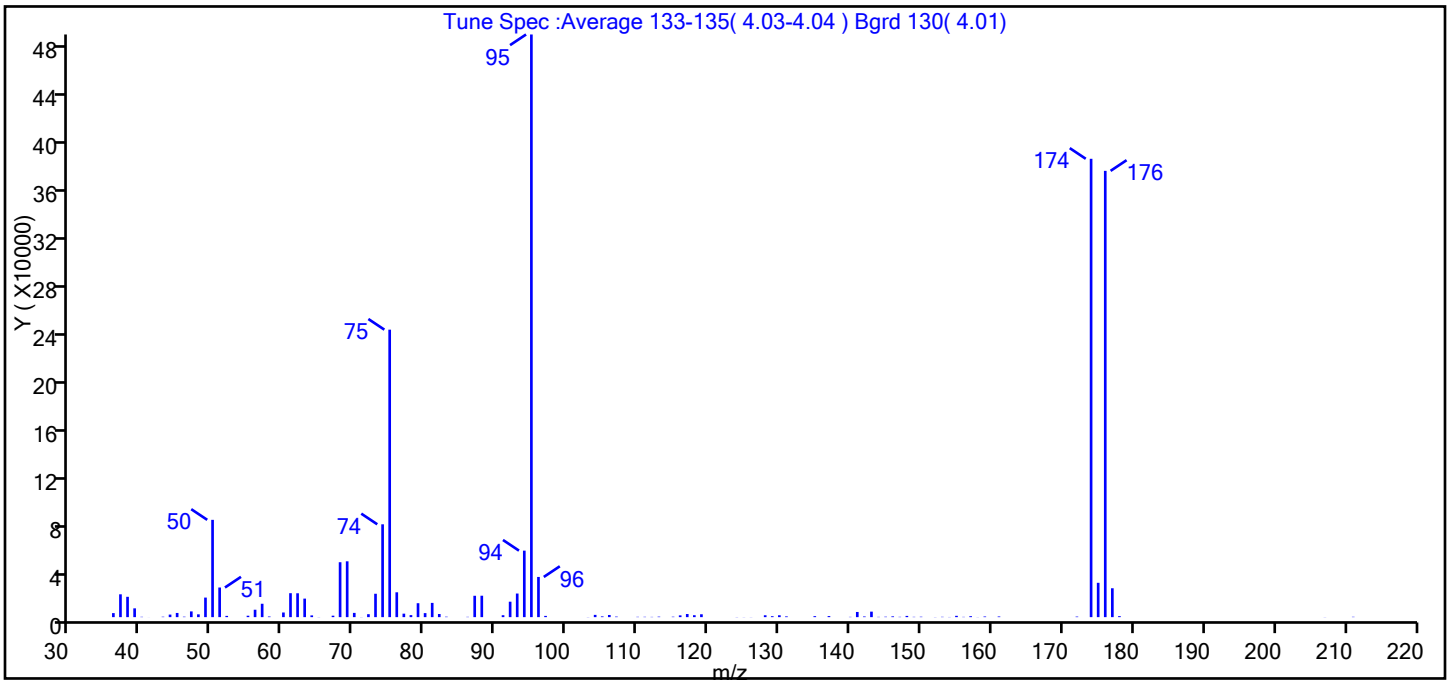
BFB_00064 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBFB6983.D
Injection Date: 01-Dec-2016 08:59:30 Instrument ID: VMSL
Lims ID: BFB
Client ID:
Operator ID: SMCR ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 2.0 uL Dil. Factor: 1.0000
Method: 25mL-8260-MSL Limit Group: MSV-8260
Tune Method: BFB Method 8260

$ 124 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.7
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	78.7
175	5 to 9% of m/z 174	5.9 (7.5)
176	Greater than 95% but less than 101% of m/z 174	76.6 (97.4)
177	5 to 9% of m/z 176	5.0 (6.5)

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBFB6983.D\25mL-8260-MSL.rslt\spectra.d
Injection Date: 01-Dec-2016 08:59:30
Spectrum: Tune Spec :Average 133-135(4.03-4.04) Bgrd 130(4.01)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3382	67.00	1214	97.00	1050	142.00	553
37.00	19152	68.00	46056	103.00	105	143.00	4616
38.00	17056	69.00	46824	104.00	1901	144.00	233
39.00	7377	70.00	3568	105.00	620	145.00	361
40.00	278	71.00	93	106.00	1813	146.00	660
41.00	37	72.00	2476	107.00	456	147.00	264
43.00	356	73.00	19616	110.00	271	148.00	1033
44.00	2146	74.00	77856	111.00	283	149.00	257
45.00	3509	75.00	241088	112.00	213	150.00	357
46.00	374	76.00	20840	113.00	418	152.00	115
47.00	4814	77.00	2921	115.00	372	153.00	273
48.00	2358	78.00	1690	116.00	1486	154.00	144
49.00	16400	79.00	11685	117.00	2614	155.00	1106
50.00	81600	80.00	3379	118.00	1620	156.00	232
51.00	24856	81.00	11952	119.00	2412	157.00	796
52.00	1053	82.00	2628	124.00	124	158.00	88
55.00	1191	83.00	377	125.00	88	159.00	540
56.00	6216	86.00	251	126.00	88	161.00	560
57.00	11229	87.00	17920	128.00	1571	172.00	470
58.00	537	88.00	17968	129.00	776	174.00	384384
60.00	3903	91.00	1614	130.00	1578	175.00	28792
61.00	20088	92.00	12955	131.00	632	176.00	374272
62.00	20016	93.00	19800	135.00	826	177.00	24232
63.00	15539	94.00	55776	137.00	883	178.00	814
64.00	1458	95.00	488640	140.00	234	207.00	90
65.00	98	96.00	33712	141.00	4342	211.00	292

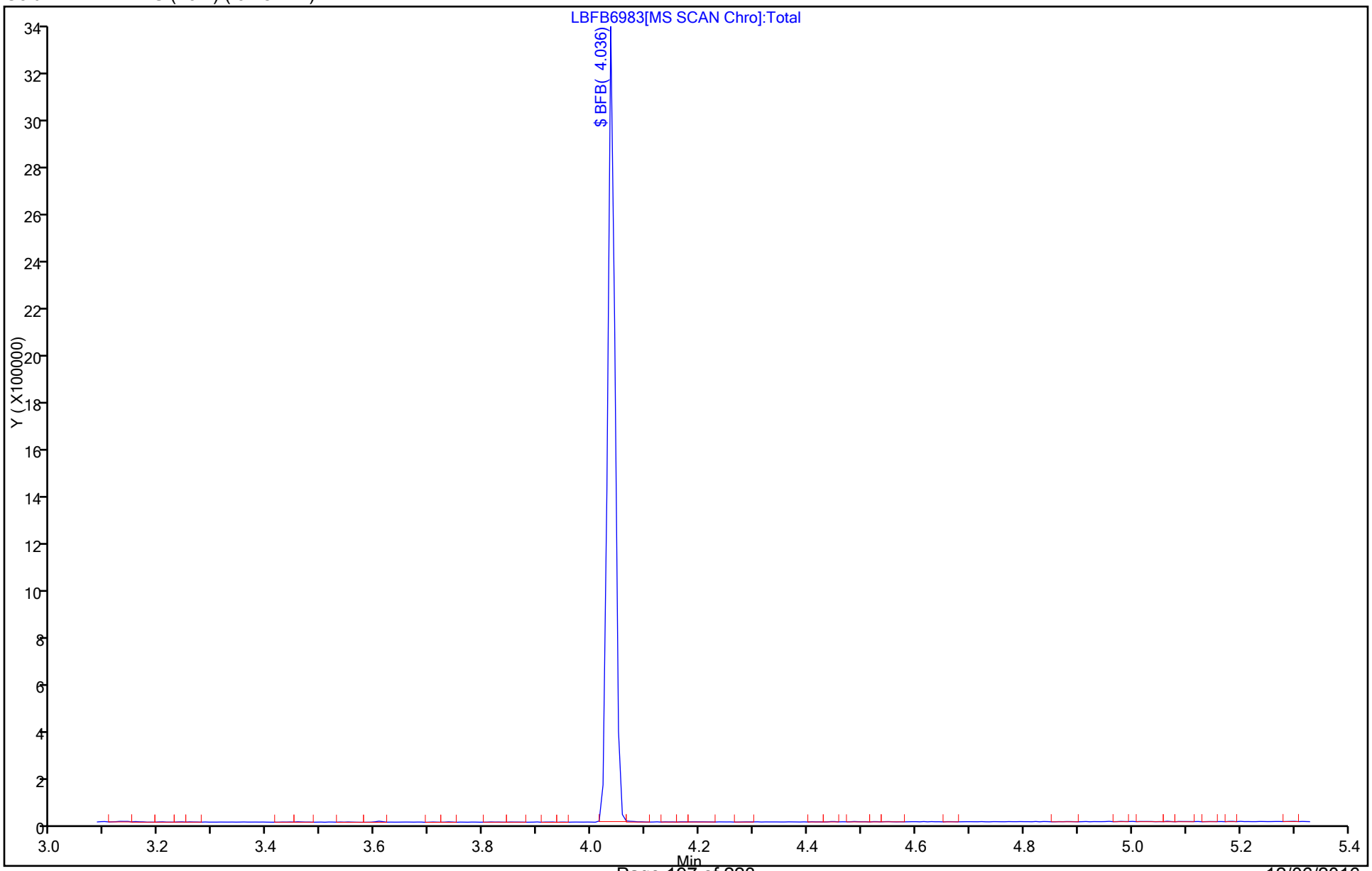
Report Date: 02-Dec-2016 09:43:48 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBFB6983.D

Injection Date:	01-Dec-2016 08:59:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	2.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 160-281852/6

Matrix: Water | Lab File ID: LBLK6988.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 11:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.10
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.13
75-35-4	1,1-Dichloroethene	ND		1.0	0.10
75-34-3	1,1-Dichloroethane	ND		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.41
107-06-2	1,2-Dichloroethane	ND		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	ND		2.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.10
78-93-3	2-Butanone	ND		5.0	0.47
591-78-6	2-Hexanone	ND		5.0	0.25
108-10-1	4-Methyl-2-pentanone	ND		5.0	0.22
67-64-1	Acetone	ND		2.0	0.55
71-43-2	Benzene	ND		1.0	0.10
75-25-2	Bromoform	ND		1.0	0.17
74-83-9	Methyl bromide	ND		2.0	0.25
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.11
124-48-1	Chlorodibromomethane	ND		1.0	0.14
75-00-3	Chloroethane	ND		2.0	0.16
67-66-3	Chloroform	ND		1.0	0.10
74-87-3	Chloromethane	ND		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.16
75-27-4	Bromodichloromethane	ND		1.0	0.14
100-41-4	Ethylbenzene	ND		1.0	0.12
106-93-4	1,2-Dibromoethane	ND		1.0	0.13
75-09-2	Methylene Chloride	ND		1.0	0.27
71-36-3	n-Butanol	ND		50	12
100-42-5	Styrene	ND		1.0	0.13
127-18-4	Tetrachloroethene	ND		1.0	0.18
108-88-3	Toluene	ND		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 160-281852/6

Matrix: Water | Lab File ID: LBLK6988.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 11:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		1.0	0.25
108-05-4	Vinyl acetate	ND		2.0	0.18
75-01-4	Vinyl chloride	ND		2.0	0.19
1330-20-7	Xylenes, Total	ND		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		75-129
460-00-4	4-Bromofluorobenzene (Surr)	95		81-130
1868-53-7	Dibromofluoromethane (Surr)	105		81-124
2037-26-5	Toluene-d8 (Surr)	102		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBLK6988.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Dec-2016 11:03:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: MB
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:27:21

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Dichlorodifluoromethane	85		3.025					ND	
	2 1,2-Dichloro-1,1,2,2-tetra	135		3.248					ND	
	3 Chloromethane	50		3.360					ND	
	4 Vinyl chloride	62		3.514					ND	
	5 Butadiene	39		3.541					ND	
	6 Bromomethane	94		4.100					ND	
	7 Chloroethane	64		4.324					ND	
	8 Trichlorofluoromethane	101		4.561					ND	
	9 Dichlorofluoromethane	67		4.673					ND	
	10 Ethyl ether	74		5.078					ND	
	11 Ethanol	45		5.315					ND	
	12 1,1-Dichloroethene	96		5.371					ND	
	13 Carbon disulfide	76		5.427					ND	
	14 1,1,2-Trichloro-1,2,2-trif	151		5.427					ND	
	16 Iodomethane	142		5.595					ND	
S	15 1,2-Dichloroethene, Total	96		5.816					ND	
	17 Acrolein	56		5.860					ND	
	18 3-Chloro-1-propene	39		6.041					ND	
	19 Isopropyl alcohol	45		6.069					ND	
	20 Methylene Chloride	84		6.181					ND	
	21 Acetone	43		6.251					ND	
	22 trans-1,2-Dichloroethene	96		6.377					ND	
	23 Methyl acetate	74		6.391					ND	
	24 Hexane	86		6.460					ND	
	25 Methyl tert-butyl ether	73		6.502					ND	
	26 2-Methyl-2-propanol	59		6.614					ND	
	28 Isopropyl ether	45		6.921					ND	
	29 2-Chloro-1,3-butadiene	53		7.075					ND	
	30 1,1-Dichloroethane	63		7.103					ND	
	31 Acrylonitrile	53		7.159					ND	
	32 Tert-butyl ethyl ether	59		7.326					ND	
	33 Vinyl acetate	43		7.354					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 cis-1,2-Dichloroethene	96		7.675					ND	
35 2,2-Dichloropropane	77		7.787					ND	
37 Chlorobromomethane	128		7.885					ND	
36 Cyclohexane	84		7.885					ND	
38 Chloroform	83		7.941					ND	
39 Ethyl acetate	45		8.039					ND	
40 Carbon tetrachloride	117		8.094					ND	
41 Tetrahydrofuran	71		8.122					ND	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	284350	10.0		10.5
43 1,1,1-Trichloroethane	97		8.164					ND	
45 2-Butanone (MEK)	43		8.248					ND	
47 1,1-Dichloropropene	75		8.276					ND	
44 Isooctane	57		8.360					ND	
46 n-Heptane	43		8.444					ND	
48 Benzene	78		8.527					ND	
49 Propionitrile	54		8.555					ND	
50 Methacrylonitrile	41		8.569					ND	
51 Tert-amyl methyl ether	73		8.597					ND	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.653	0.014	91	269842	10.0		10.1
52 Isobutyl alcohol	42		8.667					ND	
* 55 Fluorobenzene	96	8.918	8.918	0.000	99	1554483	10.0		10.0
58 Methylcyclohexane	55		9.072					ND	
57 Trichloroethene	95		9.072					ND	
56 1,4-Difluorobenzene	114		9.256					ND	
59 n-Butanol	56		9.310					ND	
61 Dibromomethane	93		9.477					ND	
60 Ethyl acrylate	55		9.505					ND	
62 1,2-Dichloropropane	63		9.561					ND	
63 Dichlorobromomethane	83		9.603					ND	
64 Methyl methacrylate	69		9.687					ND	
65 1,4-Dioxane	88		9.784					ND	
66 2-Chloroethyl vinyl ether	63		10.078					ND	
67 cis-1,3-Dichloropropene	75		10.161					ND	
$ 68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1453459	10.0		10.2
70 2-Nitropropane	43		10.594					ND	
71 4-Methyl-2-pentanone (MIBK	43		10.692					ND	
72 trans-1,3-Dichloropropene	75		10.748					ND	
73 Tetrachloroethene	164		10.748					ND	
74 Ethyl methacrylate	69		10.818					ND	
75 1,1,2-Trichloroethane	83		10.902					ND	
76 Chlorodibromomethane	129		11.083					ND	
77 1,3-Dichloropropane	76		11.153					ND	
78 n-Butyl acetate	43		11.307					ND	
79 Ethylene Dibromide	107		11.321					ND	
80 2-Hexanone	43		11.432					ND	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	87	1001968	10.0		10.0
82 Ethylbenzene	91		11.754					ND	
84 Chlorobenzene	112		11.768					ND	
85 1,1,1,2-Tetrachloroethane	131		11.810					ND	
86 m-Xylene & p-Xylene	106		11.879					ND	
88 o-Xylene	106		12.284					ND	
89 Styrene	104		12.340					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
90 Bromoform	173		12.410					ND	
91 Isopropylbenzene	105		12.564					ND	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	90	454687	10.0	9.55	
93 N-Propylbenzene	91		12.941					ND	
94 Bromobenzene	156		12.983					ND	
95 1,1,2,2-Tetrachloroethane	83		13.011					ND	
96 1,3,5-Trimethylbenzene	105		13.108					ND	
97 2-Chlorotoluene	91		13.136					ND	
99 1,2,3-Trichloropropane	110		13.178					ND	
98 trans-1,4-Dichloro-2-buten	53		13.178					ND	
100 Cyclohexanone	55		13.248					ND	
101 4-Chlorotoluene	91		13.290					ND	
102 tert-Butylbenzene	119		13.430					ND	
103 1,2,4-Trimethylbenzene	105		13.499					ND	
87 Pentachloroethane	167		13.558					ND	
104 sec-Butylbenzene	105		13.597					ND	
105 4-Isopropyltoluene	119		13.723					ND	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	95	469740	10.0	10.0	
111 n-Butylbenzene	134		14.128					ND	
110 Benzyl chloride	126		14.170					ND	
112 1,2-Dichlorobenzene	146		14.365					ND	
113 n-Nonyl Aldehyde	57		15.078					ND	
115 1,2-Dibromo-3-Chloropropan	157		15.147					ND	
114 1,3,5-Trichlorobenzene	180		15.161					ND	
116 Hexachlorobutadiene	225		15.748					ND	
117 1,2,4-Trichlorobenzene	180		15.818					ND	
118 Naphthalene	128		16.167					ND	
120 1,2,3-Trichlorobenzene	180		16.362					ND	
S 119 Xylenes, Total	106		16.500					ND	
121 2-Pentanone	1		0.000					ND	
S 130 Trihalomethanes, Total	1		0.000					ND	

Reagents:

I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

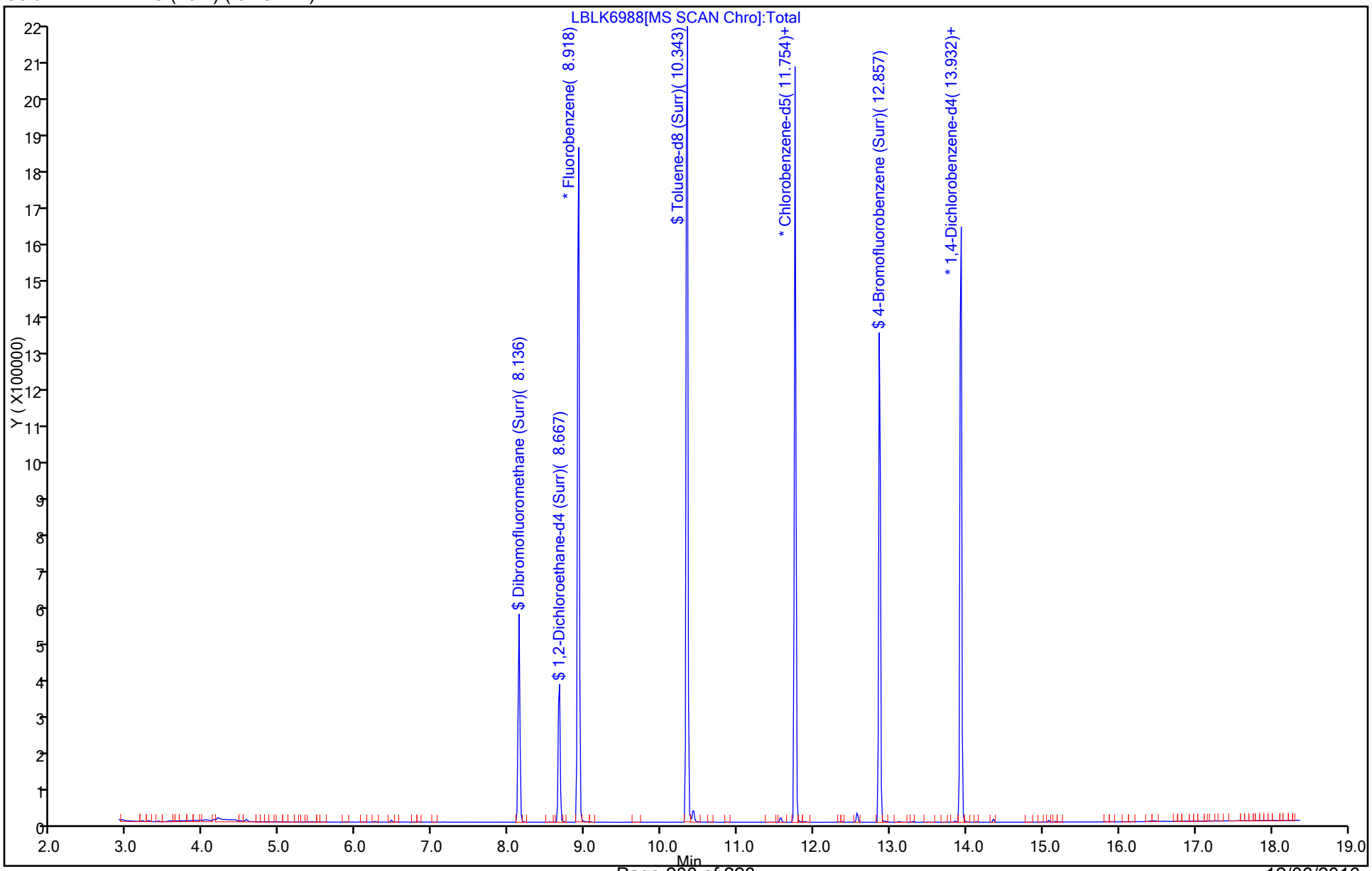
Report Date: 02-Dec-2016 09:43:59 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBLK6988.D

Injection Date:	01-Dec-2016 11:03:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LBLK6988.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Dec-2016 11:03:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: MB
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 02-Dec-2016 09:27:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	10.5	105.39
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.57
$ 68 Toluene-d8 (Surr)	10.0	10.2	102.17
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.55	95.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 160-281852/3

Matrix: Water | Lab File ID: LLCS6985.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 09:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	9.87		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	9.49		1.0	0.10
79-00-5	1,1,2-Trichloroethane	9.79		1.0	0.13
75-35-4	1,1-Dichloroethene	9.71		1.0	0.10
75-34-3	1,1-Dichloroethane	9.95		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	10.2		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	10.2		1.0	0.41
107-06-2	1,2-Dichloroethane	9.79		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	19.6		2.0	0.14
78-87-5	1,2-Dichloropropane	9.81		1.0	0.10
78-93-3	2-Butanone	10.6		5.0	0.47
591-78-6	2-Hexanone	10.4		5.0	0.25
108-10-1	4-Methyl-2-pentanone	9.54		5.0	0.22
67-64-1	Acetone	10.7		2.0	0.55
71-43-2	Benzene	9.67		1.0	0.10
75-25-2	Bromoform	10.1		1.0	0.17
74-83-9	Methyl bromide	9.06		2.0	0.25
75-15-0	Carbon disulfide	9.76		1.0	0.10
56-23-5	Carbon tetrachloride	9.88		1.0	0.18
108-90-7	Chlorobenzene	9.89		1.0	0.11
124-48-1	Chlorodibromomethane	10.3		1.0	0.14
75-00-3	Chloroethane	9.58		2.0	0.16
67-66-3	Chloroform	9.88		1.0	0.10
74-87-3	Chloromethane	9.65		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	9.79		1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	9.90		1.0	0.16
75-27-4	Bromodichloromethane	9.86		1.0	0.14
100-41-4	Ethylbenzene	9.85		1.0	0.12
106-93-4	1,2-Dibromoethane	10.0		1.0	0.13
75-09-2	Methylene Chloride	9.73		1.0	0.27
71-36-3	n-Butanol	238		50	12
100-42-5	Styrene	10.0		1.0	0.13
127-18-4	Tetrachloroethene	10.2		1.0	0.18
108-88-3	Toluene	9.79		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	9.80		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 160-281852/3

Matrix: Water | Lab File ID: LLCS6985.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 09:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	9.92		1.0	0.25
108-05-4	Vinyl acetate	9.30		2.0	0.18
75-01-4	Vinyl chloride	9.63		2.0	0.19
1330-20-7	Xylenes, Total	19.9		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		75-129
460-00-4	4-Bromofluorobenzene (Surr)	96		81-130
1868-53-7	Dibromofluoromethane (Surr)	107		81-124
2037-26-5	Toluene-d8 (Surr)	102		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LLCS6985.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Dec-2016 09:48:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 01-Dec-2016 10:25:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	100	592104	10.0	9.63	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	98	273366	10.0	10.5	
3 Chloromethane	50	3.360	3.360	0.000	99	524531	10.0	9.65	
4 Vinyl chloride	62	3.514	3.514	0.000	99	534183	10.0	9.63	
5 Butadiene	39	3.542	3.541	0.001	95	569719	10.0	9.82	
6 Bromomethane	94	4.100	4.100	0.000	91	269906	10.0	9.06	
7 Chloroethane	64	4.324	4.324	0.000	99	312871	10.0	9.58	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	99	816449	10.0	9.83	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	854515	10.0	9.63	
10 Ethyl ether	74	5.078	5.078	0.000	91	139293	10.0	9.65	
11 Ethanol	45	5.315	5.315	0.000	99	39460	400.0	386.3	
12 1,1-Dichloroethene	96	5.371	5.371	0.000	97	440527	10.0	9.71	
13 Carbon disulfide	76	5.427	5.427	0.000	100	1512080	10.0	9.76	
14 1,1,2-Trichloro-1,2,2-trif	151	5.427	5.427	0.000	91	417235	10.0	10.0	
16 Iodomethane	142	5.595	5.595	0.000	99	310769	10.0	9.85	
17 Acrolein	56	5.860	5.860	0.000	99	95265	50.0	49.5	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	532550	10.0	9.66	
19 Isopropyl alcohol	45	6.069	6.069	0.000	97	57904	100.0	79.5	
20 Methylene Chloride	84	6.181	6.181	0.000	92	331808	10.0	9.73	
21 Acetone	43	6.251	6.251	0.000	98	36985	10.0	10.7	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	463445	10.0	9.80	
23 Methyl acetate	74	6.391	6.391	0.000	97	92868	50.0	49.7	
24 Hexane	86	6.460	6.460	0.000	94	167645	10.0	9.73	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	86	571376	10.0	9.52	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	95	88322	100.0	90.9	
27 Acetonitrile	41	6.824	6.824	0.000	99	117313	100.0	99.2	
28 Isopropyl ether	45	6.921	6.921	0.000	93	988258	10.0	9.87	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	93	791441	10.0	9.92	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	97	748525	10.0	9.95	
31 Acrylonitrile	53	7.159	7.159	0.000	98	386387	100.0	98.5	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	778525	10.0	9.65	
33 Vinyl acetate	43	7.354	7.354	0.000	98	408753	10.0	9.30	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 cis-1,2-Dichloroethene	96	7.676	7.675	0.001	84	435579	10.0	9.79	
35 2,2-Dichloropropane	77	7.787	7.787	0.000	92	730933	10.0	9.81	
37 Chlorobromomethane	128	7.885	7.885	0.000	50	135179	10.0	10.2	
36 Cyclohexane	84	7.899	7.885	0.014	90	823049	10.0	9.56	
38 Chloroform	83	7.941	7.941	0.000	94	705909	10.0	9.88	
39 Ethyl acetate	45	8.039	8.039	0.000	99	31884	20.0	19.9	
40 Carbon tetrachloride	117	8.108	8.094	0.014	97	706613	10.0	9.88	
41 Tetrahydrofuran	71	8.122	8.122	0.000	86	24921	20.0	19.3	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	95	296692	10.0	10.7	
43 1,1,1-Trichloroethane	97	8.164	8.164	0.000	98	804867	10.0	9.87	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	100	51591	10.0	10.6	
47 1,1-Dichloropropene	75	8.290	8.276	0.014	95	687825	10.0	9.71	
44 Isooctane	57	8.360	8.360	0.000	97	2023411	10.0	9.79	
46 n-Heptane	43	8.444	8.444	0.000	91	880153	10.0	10.0	
48 Benzene	78	8.527	8.527	0.000	97	1692426	10.0	9.67	
49 Propionitrile	54	8.555	8.555	0.000	94	142148	100.0	99.9	
50 Methacrylonitrile	41	8.569	8.569	0.000	92	853635	100.0	98.5	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	96	606059	10.0	9.39	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.653	8.653	0.000	92	277989	10.0	10.1	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	61503	250.0	227.0	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	349404	10.0	9.79	
* 55 Fluorobenzene	96	8.919	8.918	0.001	99	1600686	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	88	736434	10.0	9.83	
57 Trichloroethene	95	9.072	9.072	0.000	67	483425	10.0	9.92	
59 n-Butanol	56	9.310	9.310	0.000	92	59867	250.0	238.3	
61 Dibromomethane	93	9.477	9.477	0.000	96	129601	10.0	9.91	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	151948	10.0	9.48	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	333759	10.0	9.81	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	418927	10.0	9.86	
64 Methyl methacrylate	69	9.687	9.687	0.000	91	197019	20.0	19.5	
65 1,4-Dioxane	88	9.784	9.784	0.000	94	23773	200.0	205.5	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	94	59330	10.0	8.62	
67 cis-1,3-Dichloropropene	75	10.162	10.161	0.001	94	491248	10.0	9.90	
$ 68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1493780	10.0	10.2	
69 Toluene	92	10.385	10.385	0.000	98	1122045	10.0	9.79	
70 2-Nitropropane	43	10.594	10.594	0.000	99	69660	20.0	17.6	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	95	107329	10.0	9.54	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	86	372177	10.0	10.0	
73 Tetrachloroethene	164	10.748	10.748	0.000	99	434585	10.0	10.2	
74 Ethyl methacrylate	69	10.818	10.818	0.000	89	207910	10.0	9.73	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	150500	10.0	9.79	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	234510	10.0	10.3	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	340065	10.0	9.65	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	194976	10.0	9.76	
79 Ethylene Dibromide	107	11.321	11.321	0.000	99	167694	10.0	10.0	
80 2-Hexanone	43	11.432	11.432	0.000	96	78707	10.0	10.4	
81 1-Chlorohexane	91	11.698	11.698	0.000	97	725857	10.0	10.1	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	66	1033515	10.0	10.0	
82 Ethylbenzene	91	11.754	11.754	0.000	98	2166181	10.0	9.85	
84 Chlorobenzene	112	11.768	11.768	0.000	91	1069722	10.0	9.89	
85 1,1,1,2-Tetrachloroethane	131	11.810	11.810	0.000	94	340569	10.0	10.1	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	854890	10.0	9.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
88 o-Xylene	106	12.284	12.284	0.000	98	755644	10.0	9.96	
89 Styrene	104	12.340	12.340	0.000	94	1116367	10.0	10.0	
90 Bromoform	173	12.410	12.410	0.000	98	115302	10.0	10.1	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	2275552	10.0	9.88	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	86	474781	10.0	9.59	
93 N-Propylbenzene	91	12.941	12.941	0.000	98	2600586	10.0	9.86	
94 Bromobenzene	156	12.983	12.983	0.000	94	405022	10.0	9.93	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	96	167080	10.0	9.49	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	1790821	10.0	10.0	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	1599806	10.0	9.64	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	56430	10.0	9.96	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	84	47536	10.0	9.78	
100 Cyclohexanone	55	13.248	13.248	0.000	91	32015	100.0	91.2	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	1421031	10.0	9.70	
102 tert-Butylbenzene	119	13.430	13.430	0.000	93	1678083	10.0	9.98	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	1733236	10.0	9.87	
87 Pentachloroethane	167		13.558				ND	ND	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	2547332	10.0	9.96	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	2132506	10.0	10.1	
106 1,3-Dichlorobenzene	146	13.863	13.863	0.000	98	856102	10.0	9.92	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	96	1537826	10.0	9.77	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	71	488288	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	820505	10.0	9.89	
111 n-Butylbenzene	134	14.128	14.128	0.000	98	549802	10.0	10.2	
110 Benzyl chloride	126	14.170	14.170	0.000	1	69423	10.0	10.7	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	98	677385	10.0	9.85	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	89	98245	10.0	9.89	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	82	27632	10.0	10.2	
114 1,3,5-Trichlorobenzene	180	15.161	15.161	0.000	97	586315	10.0	9.96	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	97	358828	10.0	10.4	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	147028	10.0	10.2	
118 Naphthalene	128	16.167	16.167	0.000	97	77469	10.0	9.60	
120 1,2,3-Trichlorobenzene	180	16.363	16.362	0.001	95	22965	10.0	9.95	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

8260 NewWkMix_00194	Amount Added: 10.00	Units: uL	
Penta Work._00046	Amount Added: 10.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

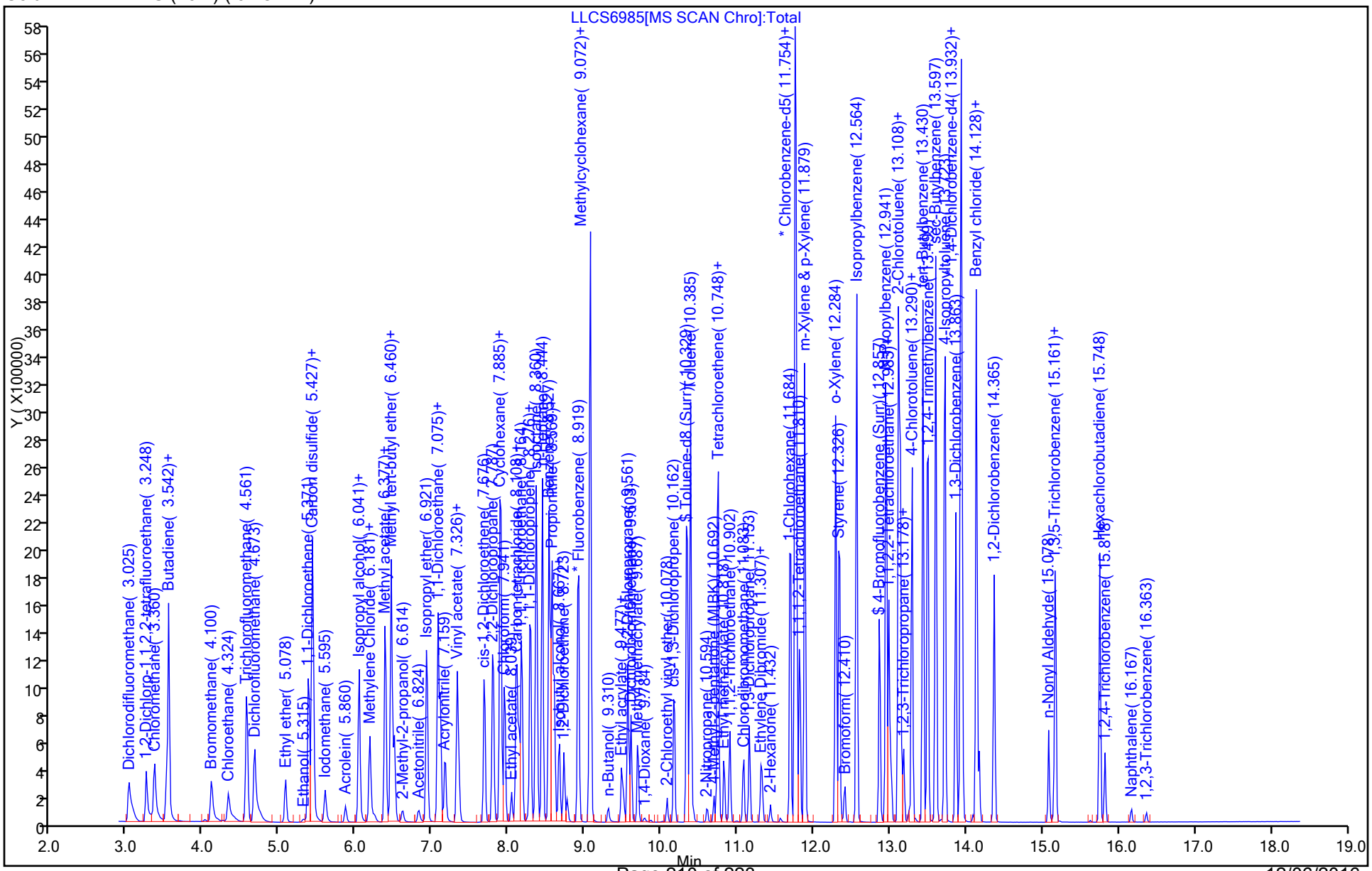
Report Date: 02-Dec-2016 09:43:53 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LLCS6985.D

Injection Date:	01-Dec-2016 09:48:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	LCS			Worklist Smp#:	3
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LLCS6985.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Dec-2016 09:48:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 01-Dec-2016 10:25:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	10.7	106.79
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.61
$ 68 Toluene-d8 (Surr)	10.0	10.2	101.80
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.59	95.90

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 160-281852/4

Matrix: Water | Lab File ID: LLCS6986.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 10:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	9.74		1.0	0.17
79-34-5	1,1,2,2-Tetrachloroethane	9.75		1.0	0.10
79-00-5	1,1,2-Trichloroethane	10.0		1.0	0.13
75-35-4	1,1-Dichloroethene	9.56		1.0	0.10
75-34-3	1,1-Dichloroethane	9.81		1.0	0.070
120-82-1	1,2,4-Trichlorobenzene	9.80		1.0	0.10
96-12-8	1,2-Dibromo-3-Chloropropane	10.5		1.0	0.41
107-06-2	1,2-Dichloroethane	10.0		1.0	0.22
540-59-0	1,2-Dichloroethene, Total	19.5		2.0	0.14
78-87-5	1,2-Dichloropropane	9.82		1.0	0.10
78-93-3	2-Butanone	11.4		5.0	0.47
591-78-6	2-Hexanone	11.2		5.0	0.25
108-10-1	4-Methyl-2-pentanone	10.4		5.0	0.22
67-64-1	Acetone	11.7		2.0	0.55
71-43-2	Benzene	9.56		1.0	0.10
75-25-2	Bromoform	10.2		1.0	0.17
74-83-9	Methyl bromide	8.91		2.0	0.25
75-15-0	Carbon disulfide	9.57		1.0	0.10
56-23-5	Carbon tetrachloride	9.76		1.0	0.18
108-90-7	Chlorobenzene	9.82		1.0	0.11
124-48-1	Chlorodibromomethane	10.4		1.0	0.14
75-00-3	Chloroethane	9.27		2.0	0.16
67-66-3	Chloroform	9.78		1.0	0.10
74-87-3	Chloromethane	9.52		2.0	0.10
156-59-2	cis-1,2-Dichloroethene	9.80		1.0	0.10
10061-01-5	cis-1,3-Dichloropropene	10.0		1.0	0.16
75-27-4	Bromodichloromethane	10.0		1.0	0.14
100-41-4	Ethylbenzene	9.65		1.0	0.12
106-93-4	1,2-Dibromoethane	10.1		1.0	0.13
75-09-2	Methylene Chloride	9.82		1.0	0.27
71-36-3	n-Butanol	268		50	12
100-42-5	Styrene	10.0		1.0	0.13
127-18-4	Tetrachloroethene	9.86		1.0	0.18
108-88-3	Toluene	9.55		1.0	0.14
156-60-5	trans-1,2-Dichloroethene	9.67		1.0	0.10
10061-02-6	trans-1,3-Dichloropropene	10.2		1.0	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica St. Louis | Job No.: 160-20140-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 160-281852/4

Matrix: Water | Lab File ID: LLCS6986.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 25(mL) | Date Analyzed: 12/01/2016 10:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VMS40 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 281852 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	9.90		1.0	0.25
108-05-4	Vinyl acetate	9.39		2.0	0.18
75-01-4	Vinyl chloride	9.41		2.0	0.19
1330-20-7	Xylenes, Total	19.6		3.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		75-129
460-00-4	4-Bromofluorobenzene (Surr)	97		81-130
1868-53-7	Dibromofluoromethane (Surr)	111		81-124
2037-26-5	Toluene-d8 (Surr)	102		87-128

TestAmerica St. Louis
Target Compound Quantitation Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LLCS6986.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 01-Dec-2016 10:13:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 01-Dec-2016 11:04:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	3.025	3.025	0.000	99	589218	10.0	9.39	
2 1,2-Dichloro-1,1,2,2-tetra	135	3.248	3.248	0.000	99	255743	10.0	9.64	M
3 Chloromethane	50	3.360	3.360	0.000	99	527346	10.0	9.52	
4 Vinyl chloride	62	3.514	3.514	0.000	99	532163	10.0	9.41	
5 Butadiene	39	3.541	3.541	0.000	95	559905	10.0	9.47	
6 Bromomethane	94	4.100	4.100	0.000	92	270864	10.0	8.91	
7 Chloroethane	64	4.324	4.324	0.000	99	308642	10.0	9.27	
8 Trichlorofluoromethane	101	4.561	4.561	0.000	99	805904	10.0	9.51	
9 Dichlorofluoromethane	67	4.673	4.673	0.000	97	855945	10.0	9.47	
10 Ethyl ether	74	5.078	5.078	0.000	91	148261	10.0	10.1	
11 Ethanol	45	5.315	5.315	0.000	100	43037	400.0	414.2	
12 1,1-Dichloroethene	96	5.371	5.371	0.000	97	442352	10.0	9.56	
13 Carbon disulfide	76	5.427	5.427	0.000	100	1511164	10.0	9.57	
14 1,1,2-Trichloro-1,2,2-trif	151	5.427	5.427	0.000	91	415037	10.0	9.78	
16 Iodomethane	142	5.594	5.595	-0.001	99	316914	10.0	9.85	
17 Acrolein	56	5.860	5.860	0.000	99	100728	50.0	51.3	
18 3-Chloro-1-propene	39	6.041	6.041	0.000	90	539752	10.0	9.60	
19 Isopropyl alcohol	45	6.069	6.069	0.000	98	65915	100.0	88.7	
20 Methylene Chloride	84	6.181	6.181	0.000	92	341227	10.0	9.82	
21 Acetone	43	6.251	6.251	0.000	99	40461	10.0	11.7	
22 trans-1,2-Dichloroethene	96	6.377	6.377	0.000	99	466155	10.0	9.67	
23 Methyl acetate	74	6.391	6.391	0.000	98	99251	50.0	52.1	
24 Hexane	86	6.460	6.460	0.000	93	168785	10.0	9.60	
25 Methyl tert-butyl ether	73	6.502	6.502	0.000	87	621245	10.0	10.1	
26 2-Methyl-2-propanol	59	6.614	6.614	0.000	95	101168	100.0	102.2	
27 Acetonitrile	41	6.824	6.824	0.000	99	126696	100.0	105.3	
28 Isopropyl ether	45	6.921	6.921	0.000	93	1034411	10.0	10.1	
29 2-Chloro-1,3-butadiene	53	7.075	7.075	0.000	92	795135	10.0	9.78	
30 1,1-Dichloroethane	63	7.103	7.103	0.000	95	752711	10.0	9.81	
31 Acrylonitrile	53	7.173	7.159	0.014	98	414895	100.0	103.7	
32 Tert-butyl ethyl ether	59	7.326	7.326	0.000	96	829879	10.0	10.1	
33 Vinyl acetate	43	7.354	7.354	0.000	98	420969	10.0	9.39	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 cis-1,2-Dichloroethene	96	7.675	7.675	0.000	84	444768	10.0	9.80	
35 2,2-Dichloropropane	77	7.801	7.787	0.014	92	726985	10.0	9.57	
37 Chlorobromomethane	128	7.899	7.885	0.014	51	138471	10.0	10.3	
36 Cyclohexane	84	7.899	7.885	0.014	90	821960	10.0	9.36	
38 Chloroform	83	7.941	7.941	0.000	93	712429	10.0	9.78	
39 Ethyl acetate	45	8.039	8.039	0.000	99	34500	20.0	21.1	
40 Carbon tetrachloride	117	8.108	8.094	0.014	98	711334	10.0	9.76	
41 Tetrahydrofuran	71	8.122	8.122	0.000	86	27621	20.0	21.0	
$ 42 Dibromofluoromethane (Surr	113	8.136	8.136	0.000	94	313279	10.0	11.1	
43 1,1,1-Trichloroethane	97	8.164	8.164	0.000	97	810246	10.0	9.74	
45 2-Butanone (MEK)	43	8.248	8.248	0.000	100	56412	10.0	11.4	
47 1,1-Dichloropropene	75	8.290	8.276	0.014	95	693710	10.0	9.60	
44 Isooctane	57	8.360	8.360	0.000	97	2024262	10.0	9.60	
46 n-Heptane	43	8.444	8.444	0.000	91	883622	10.0	9.84	
48 Benzene	78	8.527	8.527	0.000	97	1706917	10.0	9.56	
49 Propionitrile	54	8.555	8.555	0.000	95	153874	100.0	106.1	
50 Methacrylonitrile	41	8.569	8.569	0.000	92	920299	100.0	104.2	
51 Tert-amyl methyl ether	73	8.597	8.597	0.000	96	658789	10.0	10.0	
$ 53 1,2-Dichloroethane-d4 (Sur	65	8.667	8.653	0.014	91	294425	10.0	10.5	
52 Isobutyl alcohol	42	8.667	8.667	0.000	92	70073	250.0	253.7	
54 1,2-Dichloroethane	62	8.723	8.723	0.000	98	363621	10.0	10.0	
* 55 Fluorobenzene	96	8.918	8.918	0.000	99	1631965	10.0	10.0	
58 Methylcyclohexane	55	9.072	9.072	0.000	89	739450	10.0	9.68	
57 Trichloroethene	95	9.072	9.072	0.000	67	491913	10.0	9.90	
59 n-Butanol	56	9.310	9.310	0.000	91	68698	250.0	268.2	
61 Dibromomethane	93	9.477	9.477	0.000	96	135748	10.0	10.2	
60 Ethyl acrylate	55	9.505	9.505	0.000	99	167072	10.0	10.2	
62 1,2-Dichloropropane	63	9.561	9.561	0.000	91	340733	10.0	9.82	
63 Dichlorobromomethane	83	9.603	9.603	0.000	99	433430	10.0	10.0	
64 Methyl methacrylate	69	9.687	9.687	0.000	91	219196	20.0	21.2	
65 1,4-Dioxane	88	9.784	9.784	0.000	94	25508	200.0	216.3	
66 2-Chloroethyl vinyl ether	63	10.078	10.078	0.000	95	63447	10.0	9.04	
67 cis-1,3-Dichloropropene	75	10.175	10.161	0.014	93	506448	10.0	10.0	
$ 68 Toluene-d8 (Surr)	98	10.343	10.329	0.014	93	1548681	10.0	10.2	
69 Toluene	92	10.385	10.385	0.000	98	1135891	10.0	9.55	
70 2-Nitropropane	43	10.608	10.594	0.014	99	73928	20.0	18.0	
71 4-Methyl-2-pentanone (MIBK	43	10.692	10.692	0.000	96	120891	10.0	10.4	
72 trans-1,3-Dichloropropene	75	10.748	10.748	0.000	77	393243	10.0	10.2	
73 Tetrachloroethene	164	10.748	10.748	0.000	98	435310	10.0	9.86	
74 Ethyl methacrylate	69	10.818	10.818	0.000	89	229047	10.0	10.3	
75 1,1,2-Trichloroethane	83	10.902	10.902	0.000	92	159874	10.0	10.0	
76 Chlorodibromomethane	129	11.083	11.083	0.000	90	245961	10.0	10.4	
77 1,3-Dichloropropane	76	11.153	11.153	0.000	93	357047	10.0	9.76	
78 n-Butyl acetate	43	11.307	11.307	0.000	98	213651	10.0	10.3	
79 Ethylene Dibromide	107	11.321	11.321	0.000	99	176084	10.0	10.1	
80 2-Hexanone	43	11.432	11.432	0.000	96	88062	10.0	11.2	
81 1-Chlorohexane	91	11.698	11.698	0.000	98	734029	10.0	9.83	
* 83 Chlorobenzene-d5	117	11.754	11.754	0.000	88	1073112	10.0	10.0	
82 Ethylbenzene	91	11.754	11.754	0.000	97	2203684	10.0	9.65	
84 Chlorobenzene	112	11.768	11.768	0.000	90	1102164	10.0	9.82	
85 1,1,1,2-Tetrachloroethane	131	11.809	11.810	-0.001	95	355631	10.0	10.1	
86 m-Xylene & p-Xylene	106	11.879	11.879	0.000	97	869983	10.0	9.75	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
88 o-Xylene	106	12.284	12.284	0.000	98	775438	10.0	9.85	
89 Styrene	104	12.340	12.340	0.000	94	1158473	10.0	10.0	
90 Bromoform	173	12.410	12.410	0.000	99	123344	10.0	10.2	
91 Isopropylbenzene	105	12.564	12.564	0.000	96	2317550	10.0	9.54	
$ 92 4-Bromofluorobenzene (Surr	95	12.857	12.857	0.000	90	508822	10.0	9.75	
93 N-Propylbenzene	91	12.941	12.941	0.000	98	2667319	10.0	9.59	
94 Bromobenzene	156	12.983	12.983	0.000	94	421354	10.0	9.79	
95 1,1,2,2-Tetrachloroethane	83	13.011	13.011	0.000	96	181054	10.0	9.75	
96 1,3,5-Trimethylbenzene	105	13.108	13.108	0.000	95	1829390	10.0	9.68	
97 2-Chlorotoluene	91	13.136	13.136	0.000	96	1651928	10.0	9.44	
99 1,2,3-Trichloropropane	110	13.178	13.178	0.000	86	60444	10.0	10.1	
98 trans-1,4-Dichloro-2-buten	53	13.178	13.178	0.000	82	50562	10.0	9.86	
100 Cyclohexanone	55	13.248	13.248	0.000	83	36621	100.0	98.9	
101 4-Chlorotoluene	91	13.290	13.290	0.000	98	1463918	10.0	9.47	
102 tert-Butylbenzene	119	13.430	13.430	0.000	93	1701476	10.0	9.59	
103 1,2,4-Trimethylbenzene	105	13.499	13.499	0.000	97	1807553	10.0	9.76	
87 Pentachloroethane	167		13.558				ND	ND	
104 sec-Butylbenzene	105	13.597	13.597	0.000	95	2617400	10.0	9.70	
105 4-Isopropyltoluene	119	13.723	13.723	0.000	97	2207740	10.0	9.92	
106 1,3-Dichlorobenzene	146	13.863	13.863	-0.001	98	887441	10.0	9.75	
107 1,2,3-Trimethylbenzene	105	13.932	13.932	0.000	97	1614095	10.0	9.72	
* 108 1,4-Dichlorobenzene-d4	152	13.932	13.932	0.000	71	514978	10.0	10.0	
109 1,4-Dichlorobenzene	146	13.946	13.946	0.000	95	853470	10.0	9.75	
111 n-Butylbenzene	134	14.128	14.128	0.000	97	565394	10.0	9.92	
110 Benzyl chloride	126	14.170	14.170	0.000	5	75710	10.0	11.0	
112 1,2-Dichlorobenzene	146	14.365	14.365	0.000	97	709359	10.0	9.79	
113 n-Nonyl Aldehyde	57	15.078	15.078	0.000	90	109004	10.0	10.3	
115 1,2-Dibromo-3-Chloropropan	157	15.147	15.147	0.000	82	29948	10.0	10.5	
114 1,3,5-Trichlorobenzene	180	15.161	15.161	0.000	97	608986	10.0	9.81	
116 Hexachlorobutadiene	225	15.748	15.748	0.000	97	364428	10.0	10.0	
117 1,2,4-Trichlorobenzene	180	15.818	15.818	0.000	94	148414	10.0	9.80	
118 Naphthalene	128	16.167	16.167	0.000	97	79250	10.0	9.31	
120 1,2,3-Trichlorobenzene	180	16.362	16.362	0.000	94	22647	10.0	9.32	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8260 NewWkMix_00194	Amount Added: 10.00	Units: uL	
Penta Work._00046	Amount Added: 10.00	Units: uL	
I.S. Working_00141	Amount Added: 10.00	Units: uL	Run Reagent
8260 Surr 25_00067	Amount Added: 10.00	Units: uL	Run Reagent

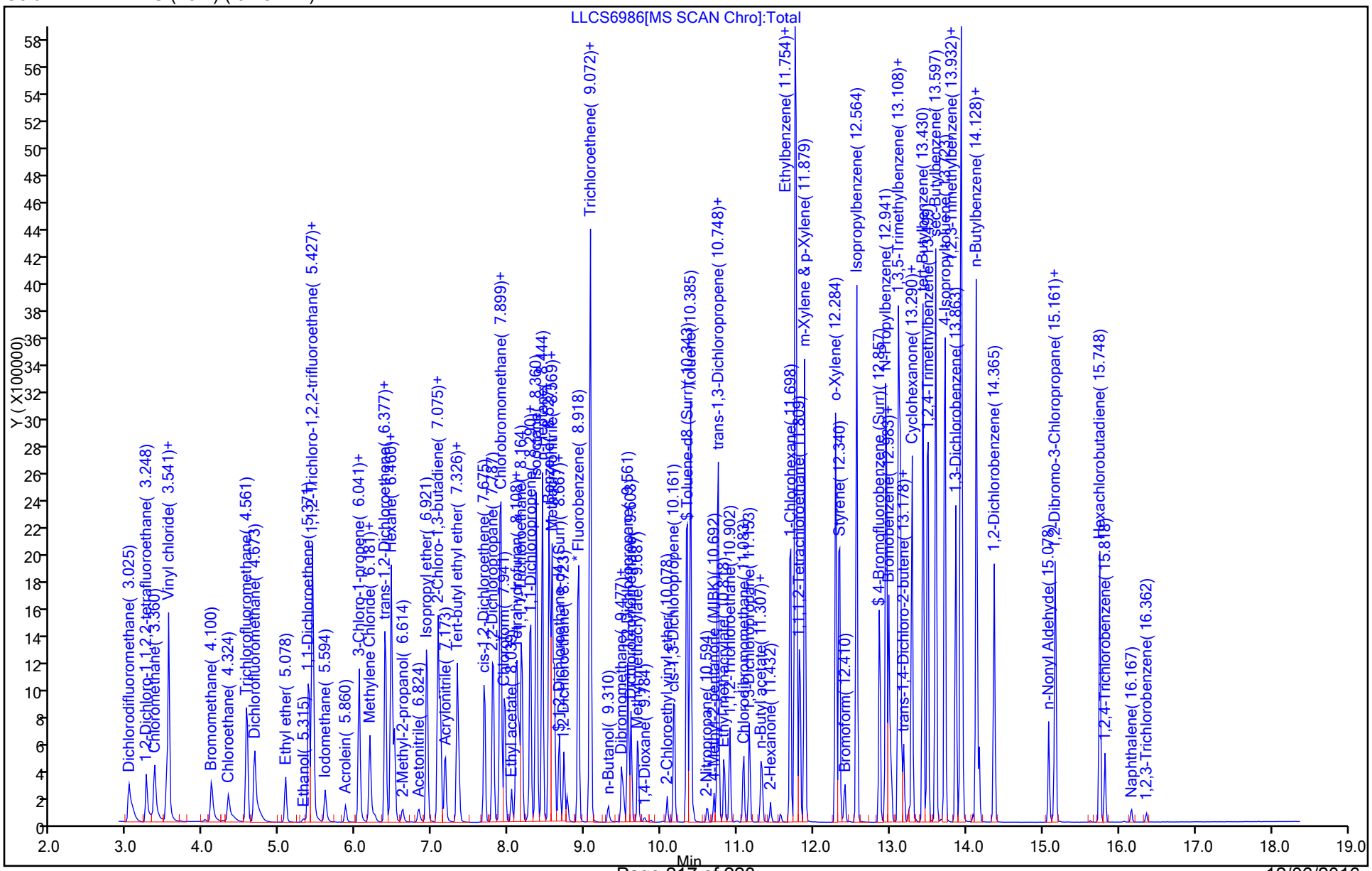
Report Date: 02-Dec-2016 09:43:54 Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica St. Louis

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LLCS6986.D

Injection Date:	01-Dec-2016 10:13:30	Instrument ID:	VMSL	Operator ID:	SMCR
Lims ID:	LCSD			Worklist Smp#:	4
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	25mL-8260-MSL	Limit Group:	MSV-8260		

Column: RTX-VMS (40m) (0.18 mm)



TestAmerica St. Louis
Recovery Report

Data File: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\LLCS6986.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 01-Dec-2016 10:13:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Operator ID: SMCR Instrument ID: VMSL

Method: \\ChromNA\StLouis\ChromData\VMSL\20161201-9213.b\25mL-8260-MSL.m
Limit Group: MSV-8260
Last Update: 02-Dec-2016 09:43:49 Calib Date: 29-Nov-2016 16:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\StLouis\ChromData\VMSL\20161129-9192.b\LICL6947.D

Column 1 : RTX-VMS (40m) (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: rhoadess Date: 01-Dec-2016 11:04:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 42 Dibromofluoromethane (Surr)	10.0	11.1	110.60
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.52
$ 68 Toluene-d8 (Surr)	10.0	10.2	101.64
$ 92 4-Bromofluorobenzene (Surr)	10.0	9.75	97.45

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Instrument ID: VMSL Start Date: 11/29/2016 13:25

Analysis Batch Number: 281296 End Date: 11/29/2016 17:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 160-281296/4		11/29/2016 13:25	1	LBFB6939.D	RTX-VMS40 0.18(mm)
IC 160-281296/8		11/29/2016 14:17	1	LICL6941.D	RTX-VMS40 0.18(mm)
IC 160-281296/9		11/29/2016 14:43	1	LICL6942.D	RTX-VMS40 0.18(mm)
IC 160-281296/10		11/29/2016 15:08	1	LICL6943.D	RTX-VMS40 0.18(mm)
IC 160-281296/11		11/29/2016 15:33	1	LICL6944.D	RTX-VMS40 0.18(mm)
ICIS 160-281296/12		11/29/2016 15:58	1	LICL6945.D	RTX-VMS40 0.18(mm)
IC 160-281296/13		11/29/2016 16:23	1	LICL6946.D	RTX-VMS40 0.18(mm)
IC 160-281296/14		11/29/2016 16:48	1	LICL6947.D	RTX-VMS40 0.18(mm)
ICV 160-281296/16		11/29/2016 17:38	1	LICV6949.D	RTX-VMS40 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica St. Louis Job No.: 160-20140-1

SDG No.:

Instrument ID: VMSL Start Date: 12/01/2016 08:59

Analysis Batch Number: 281852 End Date: 12/01/2016 20:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 160-281852/1		12/01/2016 08:59	1	LBFB6983.D	RTX-VMS40 0.18(mm)
CCVIS 160-281852/2		12/01/2016 09:23	1	LCCV6984.D	RTX-VMS40 0.18(mm)
LCS 160-281852/3		12/01/2016 09:48	1	LLCS6985.D	RTX-VMS40 0.18(mm)
LCSD 160-281852/4		12/01/2016 10:13	1	LLCS6986.D	RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 10:38	1		RTX-VMS40 0.18(mm)
MB 160-281852/6		12/01/2016 11:03	1	LBLK6988.D	RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 11:53	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 12:18	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 12:43	1		RTX-VMS40 0.18(mm)
160-20140-1		12/01/2016 15:14	1	LSMP6998.D	RTX-VMS40 0.18(mm)
160-20140-2		12/01/2016 15:39	1	LSMP6999.D	RTX-VMS40 0.18(mm)
160-20140-3		12/01/2016 16:04	1	LSMP7000.D	RTX-VMS40 0.18(mm)
160-20140-4		12/01/2016 16:29	1	LSMP7001.D	RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 16:54	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 17:19	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 17:45	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 18:10	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 18:35	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 19:00	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 19:25	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 19:50	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 20:16	1		RTX-VMS40 0.18(mm)
ZZZZZ		12/01/2016 20:41	1		RTX-VMS40 0.18(mm)

Shipping and Receiving Documents

FORM HDP-PR-QA-006-1
CHAIN OF CUSTODY

Instructions: Each time the container is transferred to another organization, a person from each organization should sign the CoC. The Laboratory/End User must verify that the sample is correctly identified before the sample is released for use or analysis and send the completed CoC to HDP.

Chain of Cutody ID No. 112216-01 **Page** 1/1

Project Name:
Westinghouse Electric Company

Contact Person:
W. Clark Evers

Phone Number:
314-810-3336

Sampler Name:
Thomas Yardy

Laboratory Name:
TA-MO

Laboratory Address:
13715 Rider Trail North
Earth City, MO 63045

Phone No.
314-298-8566

Laboratory Contact Person:
Ivan Vania

Phone No.
708-870-8453

Turn Around Time
Normal (21 days)

Sample ID	Date	Time	Matrix	Comp (C) or Grab (G)	Gross Alpha/Beta (Total)	Isotopic Uranium	Tc-99	TSS	VOCs						Total Containers	Remarks
					Requested Analysis											
TB-112216	11/22/2016	7:00	L	G					X						2	Trip Blank
SW-WS06-112216	11/22/2016	8:05	L	G					X						2	4Q16 IGMP Surface Water
SW-WS12-112216	11/22/2016	8:35	L	G					X						2	4Q16 IGMP Surface Water
SW-WS11-112216	11/22/2016	9:00	L	G					X						2	4Q16 IGMP Surface Water

160-20140 Chain of Custody

Relinquished by: Martin Evans	Date/Time 11-23-16 0915	Received by: RGM 3815	Date/Time 11-23-16 0915	Total Number of Containers: 8	Cooler Temperature: 4 Degrees C
Company Name: WEC		Company Name: CROSS ROADS		Container ID: N/A	Shipper and Number:
Received by:	Date/Time	Relinquished by:	Date/Time	Comments: PO #4500404709	
Company Name:		Company Name:			
Relinquished by: RGM 3815	Date/Time 11-23-16 1:30	Received by:	Date/Time 11-23-16 1130	Verified By: Martin Evans 11-22-16	
Company Name: CROSS ROADS		Company Name:			

Login Sample Receipt Checklist

Client: Westinghouse Electric Company LLC

Job Number: 160-20140-1

Login Number: 20140
List Number: 1
Creator: Dedner, Connie L

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	