TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-109197-1
Client Project/Site: Ford LTP Livonia MI - E203631

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Kristoffer Hinskey

Authorized for release by:
3/20/2019 9:28:10 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Job ID: 240-109197-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI - E203631

Report Number: 240-109197-1

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 Canton 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 are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

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

RECEIPT

The sample was received on 3/11/2019 8:50 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample MW-130S_030619 (240-109197-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 03/12/2019.

Tetrachloroethene and Trichloroethene were detected in method blank MB 240-371207/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Sample MW-130S_030619 (240-109197-1) was analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The sample was analyzed on 03/11/2019.

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

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-109197-1	MW-130S_030619	Water	03/06/19 12:30	03/11/19 08:50

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

Client Sample ID: MW-130S_030619

Lab Sample ID: 240-109197-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.18	J	1.0	0.16	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.18	J B	1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	0.12	J B	1.0	0.10	ug/L	1		8260B	Total/NA
Vinyl chloride	1.1		1.0	0.20	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

Client Sample ID: MW-130S_030619
Date Collected: 03/06/19 12:30
Date Received: 03/11/19 08:50

Lab Sample ID: 240-109197-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/11/19 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*63 - 125*		*03/11/19 22:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/12/19 10:48	1
cis-1,2-Dichloroethene	**0.18**	**J**	1.0	0.16	ug/L			03/12/19 10:48	1
Tetrachloroethene	**0.18**	**J B**	1.0	0.15	ug/L			03/12/19 10:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/12/19 10:48	1
Trichloroethene	**0.12**	**J B**	1.0	0.10	ug/L			03/12/19 10:48	1
Vinyl chloride	**1.1**		1.0	0.20	ug/L			03/12/19 10:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 121*		*03/12/19 10:48*	*1*
4-Bromofluorobenzene (Surr)	*71*		*59 - 120*		*03/12/19 10:48*	*1*
Toluene-d8 (Surr)	*81*		*70 - 123*		*03/12/19 10:48*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 128*		*03/12/19 10:48*	*1*

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: ICV 240-364785/14 Calibration Date: 01/21/2019 13:48

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC8416.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3072	0.3077		0.0100	0.0100	0.2	50.0
Chloromethane	Ave	0.3135	0.2939	0.1000	0.00937	0.0100	-6.3	50.0
Vinyl chloride	Ave	0.2885	0.2965		0.0103	0.0100	2.8	20.0
Butadiene	Ave	0.3794	0.3439		0.00906	0.0100	-9.4	50.0
Bromomethane	Ave	0.2308	0.2181		0.00945	0.0100	-5.5	50.0
Chloroethane	Ave	0.2041	0.1937		0.00949	0.0100	-5.1	50.0
Dichlorofluoromethane	Ave	0.5102	0.5038		0.00987	0.0100	-1.3	50.0
Trichlorofluoromethane	Ave	0.4337	0.4655		0.0107	0.0100	7.3	50.0
Ethyl ether	Ave	0.2310	0.2499		0.0108	0.0100	8.2	50.0
Acrolein	Ave	0.0317	0.0225		0.0354	0.0500	-29.1	50.0
1,1-Dichloroethene	Ave	0.3005	0.2950		0.00982	0.0100	-1.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2468	0.2669		0.0108	0.0100	8.1	50.0
Acetone	Lin1		0.0260		0.0217	0.0200	8.7	50.0
Iodomethane	Ave	0.4675	0.5088		0.0109	0.0100	8.8	50.0
Carbon disulfide	Ave	0.7741	0.7832		0.0101	0.0100	1.2	50.0
3-Chloro-1-propene	Ave	0.1698	0.1835		0.0108	0.0100	8.0	50.0
Methyl acetate	Ave	0.2050	0.2103		0.0205	0.0200	2.6	50.0
Methylene Chloride	Lin1		0.3143		0.0102	0.0100	1.8	50.0
2-Methyl-2-propanol	Ave	0.0203	0.0193		0.0952	0.100	-4.8	50.0
Acrylonitrile	Ave	0.0962	0.0979		0.102	0.100	1.8	50.0
Methyl tert-butyl ether	Ave	0.7834	0.8124		0.0104	0.0100	3.7	50.0
trans-1,2-Dichloroethene	Ave	0.2795	0.2813		0.0101	0.0100	0.6	50.0
Hexane	Ave	0.0586	0.0579		0.00987	0.0100	-1.3	20.0
1,1-Dichloroethane	Ave	0.4517	0.4658	0.1000	0.0103	0.0100	3.1	50.0
Vinyl acetate	Ave	0.5198	0.5720		0.0110	0.0100	10.0	50.0
2,2-Dichloropropane	Ave	0.0624	0.0692		0.0111	0.0100	10.9	50.0
2-Butanone (MEK)	Ave	0.0333	0.0338		0.0203	0.0200	1.7	50.0
cis-1,2-Dichloroethene	Ave	0.3078	0.3026		0.00983	0.0100	-1.7	50.0
Chlorobromomethane	Ave	0.1531	0.1576		0.0103	0.0100	2.9	50.0
Tetrahydrofuran	Ave	0.0828	0.0821		0.0198	0.0200	-0.8	50.0
Chloroform	Ave	0.4606	0.4715		0.0102	0.0100	2.4	20.0
1,1,1-Trichloroethane	Ave	0.3546	0.3844		0.0108	0.0100	8.4	50.0
Cyclohexane	Ave	0.3993	0.4228		0.0106	0.0100	5.9	50.0
1,1-Dichloropropene	Ave	0.3748	0.3803		0.0101	0.0100	1.5	50.0
Carbon tetrachloride	Ave	0.3441	0.3608		0.0105	0.0100	4.9	50.0
Isobutyl alcohol	Ave	0.0077	0.0075		0.244	0.250	-2.5	50.0
Benzene	Ave	1.116	1.120		0.0100	0.0100	0.4	50.0
1,2-Dichloroethane	Ave	0.3820	0.3923		0.0103	0.0100	2.7	50.0
n-Heptane	Ave	0.0532	0.0516		0.00969	0.0100	-3.1	50.0
Trichloroethene	Ave	0.3240	0.3277		0.0101	0.0100	1.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: ICV 240-364785/14 Calibration Date: 01/21/2019 13:48

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC8416.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3524	0.3635		0.0103	0.0100	3.1	50.0
1,2-Dichloropropane	Ave	0.2590	0.2693		0.0104	0.0100	4.0	20.0
1,4-Dioxane	Lin1		0.0018		0.174	0.200	-13.1	50.0
Dibromomethane	Ave	0.1717	0.1693		0.00986	0.0100	-1.4	50.0
Dichlorobromomethane	Ave	0.3410	0.3425		0.0100	0.0100	0.5	50.0
2-Chloroethyl vinyl ether	Ave	0.1745	0.1743		0.00998	0.0100	-0.2	50.0
cis-1,3-Dichloropropene	Ave	0.3944	0.4210		0.0107	0.0100	6.7	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2678	0.2819		0.0211	0.0200	5.3	50.0
Toluene	Ave	1.476	1.520		0.0103	0.0100	3.0	20.0
trans-1,3-Dichloropropene	Ave	0.4646	0.4706		0.0101	0.0100	1.3	50.0
Ethyl methacrylate	Ave	0.4442	0.4407		0.00992	0.0100	-0.8	50.0
1,1,2-Trichloroethane	Ave	0.2982	0.3097		0.0104	0.0100	3.9	50.0
Tetrachloroethene	Ave	0.3268	0.3359		0.0103	0.0100	2.8	50.0
1,3-Dichloropropane	Ave	0.5243	0.5353		0.0102	0.0100	2.1	50.0
2-Hexanone	Ave	0.2283	0.2452		0.0215	0.0200	7.4	50.0
Chlorodibromomethane	Ave	0.3116	0.3163		0.0102	0.0100	1.5	50.0
Ethylene Dibromide	Ave	0.3191	0.3265		0.0102	0.0100	2.3	50.0
Chlorobenzene	Ave	0.9777	0.9870	0.3000	0.0101	0.0100	1.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3450	0.3654		0.0106	0.0100	5.9	50.0
Ethylbenzene	Ave	0.5145	0.5244		0.0102	0.0100	1.9	20.0
m-Xylene & p-Xylene	Ave	1.221	1.254		0.0103	0.0100	2.7	50.0
o-Xylene	Ave	0.6189	0.6401		0.0103	0.0100	3.4	50.0
Styrene	Ave	1.036	1.018		0.00982	0.0100	-1.8	50.0
Bromoform	Lin1		0.1992	0.1000	0.00846	0.0100	-15.4	50.0
Isopropylbenzene	Ave	1.463	1.540		0.0105	0.0100	5.3	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7086	0.7292	0.3000	0.0103	0.0100	2.9	50.0
Bromobenzene	Ave	0.8274	0.8332		0.0101	0.0100	0.7	50.0
1,2,3-Trichloropropane	Ave	0.2468	0.2591		0.0105	0.0100	5.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1014	0.0704		0.00695	0.0100	-30.5	50.0
N-Propylbenzene	Ave	0.7286	0.7393		0.0101	0.0100	1.5	50.0
2-Chlorotoluene	Ave	0.6821	0.6987		0.0102	0.0100	2.4	50.0
1,3,5-Trimethylbenzene	Ave	2.119	2.131		0.0101	0.0100	0.6	50.0
4-Chlorotoluene	Ave	2.205	2.165		0.00982	0.0100	-1.8	50.0
tert-Butylbenzene	Ave	1.897	1.872		0.00987	0.0100	-1.3	50.0
1,2,4-Trimethylbenzene	Ave	2.227	2.255		0.0101	0.0100	1.2	50.0
sec-Butylbenzene	Ave	2.327	2.325		0.00999	0.0100	-0.0	50.0
1,3-Dichlorobenzene	Ave	1.425	1.437		0.0101	0.0100	0.9	50.0
4-Isopropyltoluene	Ave	2.083	2.090		0.0100	0.0100	0.3	50.0
1,4-Dichlorobenzene	Ave	1.477	1.484		0.0100	0.0100	0.4	50.0
n-Butylbenzene	Ave	1.649	1.603		0.00972	0.0100	-2.8	50.0
1,2-Dichlorobenzene	Ave	1.387	1.408		0.0102	0.0100	1.5	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: ICV 240-364785/14 Calibration Date: 01/21/2019 13:48

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC8416.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1611	0.1660		0.0103	0.0100	3.0	50.0
1,2,4-Trichlorobenzene	Ave	0.8784	0.8494		0.00967	0.0100	-3.3	50.0
Hexachlorobutadiene	Qua		0.3722		0.00828	0.0100	-17.2	50.0
Naphthalene	Ave	2.209	2.304		0.0104	0.0100	4.3	50.0
1,2,3-Trichlorobenzene	Ave	0.7902	0.7849		0.00993	0.0100	-0.7	50.0
Dibromofluoromethane (Surr)	Ave	0.2366	0.2183		0.00735	0.00797	-7.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2714		0.00711	0.00797	-10.8	50.0
Toluene-d8 (Surr)	Ave	1.214	1.116		0.00733	0.00797	-8.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4341	0.4000		0.00734	0.00797	-7.9	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8416.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 21-Jan-2019 13:48:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-014
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist:

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:10:13 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1793251	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	85	1418410	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	796911	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	311994	7.97	7.35	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	387861	7.97	7.11	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	1261093	7.97	7.33	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	96	452132	7.97	7.34	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	551850	10.0	10.0	
10 Chloromethane	50	1.686	1.686	0.000	99	527044	10.0	9.37	
11 Vinyl chloride	62	1.781	1.781	0.000	97	531634	10.0	10.3	
12 Butadiene	54	1.793	1.793	-0.001	96	616742	10.0	9.06	
13 Bromomethane	94	2.053	2.054	-0.001	91	391096	10.0	9.45	
14 Chloroethane	64	2.136	2.137	-0.001	100	347264	10.0	9.49	
15 Dichlorofluoromethane	67	2.302	2.303	-0.001	97	903414	10.0	9.87	
16 Trichlorofluoromethane	101	2.362	2.362	0.000	99	834671	10.0	10.7	
17 Ethyl ether	59	2.575	2.563	0.012	90	448075	10.0	10.8	
18 Acrolein	56	2.694	2.694	0.000	99	201389	50.0	35.4	
19 1,1-Dichloroethene	96	2.789	2.777	0.012	98	529054	10.0	9.82	
20 1,1,2-Trichloro-1,2,2-trif	151	2.800	2.789	0.011	86	478556	10.0	10.8	
22 Acetone	58	2.812	2.812	0.000	100	93357	20.0	21.7	
23 Iodomethane	142	2.931	2.931	0.000	98	912367	10.0	10.9	
24 Carbon disulfide	76	2.990	2.990	0.000	100	1404467	10.0	10.1	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	88	329005	10.0	10.8	
27 Methyl acetate	43	3.085	3.085	0.000	98	754191	20.0	20.5	
28 Methylene Chloride	84	3.180	3.180	0.000	93	563557	10.0	10.2	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	346305	100.0	95.2	
32 Acrylonitrile	53	3.393	3.394	-0.001	99	1755477	100.0	101.8	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	97	504418	10.0	10.1	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	95	1456881	10.0	10.4	
33 Hexane	86	3.619	3.619	0.000	94	103809	10.0	9.87	
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	835310	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.785	3.785	0.000	97	1025753	10.0	11.0	
39 cis-1,2-Dichloroethene	96	4.247	4.235	0.012	81	542596	10.0	9.83	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	98	121331	20.0	20.3	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	65	124051	10.0	11.1	
45 Chlorobromomethane	128	4.449	4.449	0.000	88	282681	10.0	10.3	
46 Tetrahydrofuran	42	4.484	4.485	-0.001	86	294586	20.0	19.8	
47 Chloroform	83	4.496	4.496	0.000	93	845575	10.0	10.2	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	98	689257	10.0	10.8	
49 Cyclohexane	56	4.710	4.710	0.000	90	758127	10.0	10.6	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	94	681963	10.0	10.1	
50 Carbon tetrachloride	117	4.805	4.805	0.000	96	647000	10.0	10.5	
52 Isobutyl alcohol	41	4.864	4.864	0.000	95	335938	250.0	243.9	
53 Benzene	78	4.971	4.971	0.000	96	2009249	10.0	10.0	
54 1,2-Dichloroethane	62	4.982	4.983	-0.001	98	703449	10.0	10.3	
56 n-Heptane	100	5.160	5.160	0.000	93	92495	10.0	9.69	
58 Trichloroethene	130	5.504	5.504	0.000	95	587677	10.0	10.1	
60 Methylcyclohexane	83	5.670	5.670	0.000	90	651902	10.0	10.3	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	94	482855	10.0	10.4	
63 Dibromomethane	93	5.813	5.813	0.000	88	303520	10.0	9.86	
64 1,4-Dioxane	88	5.813	5.813	0.000	33	65935	200.0	173.7	
65 Dichlorobromomethane	83	5.931	5.931	0.000	99	614221	10.0	10.0	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	312475	10.0	9.98	
68 cis-1,3-Dichloropropene	75	6.322	6.323	-0.001	95	754933	10.0	10.7	
69 4-Methyl-2-pentanone (MIBK	43	6.441	6.441	0.000	97	1011196	20.0	21.1	
70 Toluene	91	6.619	6.619	0.000	98	2155730	10.0	10.3	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	94	667505	10.0	10.1	
72 Ethyl methacrylate	69	6.868	6.868	0.000	89	625023	10.0	9.92	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	439234	10.0	10.4	
74 Tetrachloroethene	164	7.117	7.117	0.000	96	476419	10.0	10.3	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	93	759222	10.0	10.2	
76 2-Hexanone	43	7.188	7.188	0.000	97	695520	20.0	21.5	
79 Chlorodibromomethane	129	7.342	7.342	0.000	89	448610	10.0	10.2	
80 Ethylene Dibromide	107	7.461	7.461	0.000	98	463121	10.0	10.2	
82 Chlorobenzene	112	7.900	7.900	0.000	95	1399979	10.0	10.1	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	94	518307	10.0	10.6	
84 Ethylbenzene	106	7.995	7.995	-0.001	98	743771	10.0	10.2	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	1778779	10.0	10.3	
86 o-Xylene	106	8.481	8.481	0.000	95	907873	10.0	10.3	
87 Styrene	104	8.493	8.493	0.000	94	1443373	10.0	9.82	
88 Bromoform	173	8.682	8.682	0.000	98	282491	10.0	8.46	
89 Isopropylbenzene	105	8.825	8.825	0.000	95	2184869	10.0	10.5	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	581082	10.0	10.3	
92 Bromobenzene	156	9.133	9.133	0.000	91	663996	10.0	10.1	
95 trans-1,4-Dichloro-2-buten	53	9.168	9.169	-0.001	67	56124	10.0	6.95	
94 1,2,3-Trichloropropane	110	9.168	9.169	-0.001	84	206463	10.0	10.5	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	589187	10.0	10.1	
97 2-Chlorotoluene	126	9.323	9.323	0.000	97	556828	10.0	10.2	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	1698481	10.0	10.1	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	1725613	10.0	9.82	
101 tert-Butylbenzene	119	9.714	9.714	0.000	92	1491725	10.0	9.87	
103 1,2,4-Trimethylbenzene	105	9.761	9.762	-0.001	94	1796823	10.0	10.1	
105 sec-Butylbenzene	105	9.927	9.928	-0.001	94	1852982	10.0	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	98	1145305	10.0	10.1	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	97	1665303	10.0	10.0	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	96	1182487	10.0	10.0	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	1277066	10.0	9.72	
112 1,2-Dichlorobenzene	146	10.509	10.509	-0.001	99	1122403	10.0	10.2	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	89	132296	10.0	10.3	
115 1,2,4-Trichlorobenzene	180	12.109	12.110	-0.001	94	676924	10.0	9.67	
116 Hexachlorobutadiene	225	12.275	12.276	-0.001	93	296600	10.0	8.28	
117 Naphthalene	128	12.358	12.359	-0.001	96	1836241	10.0	10.4	
118 1,2,3-Trichlorobenzene	180	12.607	12.608	-0.001	95	625482	10.0	9.93	
S 129 Xylenes, Total	106				0		20.0	20.6	
S 157 Total BTEX	1		0.000				50.0	ND	
S 130 Trihalomethanes, Total	1				0		40.0	38.9	

Reagents:

VMFASPW_00285	Amount Added:	8.00	Units: uL	
VMFASAW_00264	Amount Added:	8.00	Units: uL	
VMFASGW_00293	Amount Added:	8.00	Units: uL	
VM50IS_00072	Amount Added:	1.00	Units: uL	
vmDist_H2o_00124	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00079	Amount Added:	0.80	Units: uL	Run Reagent

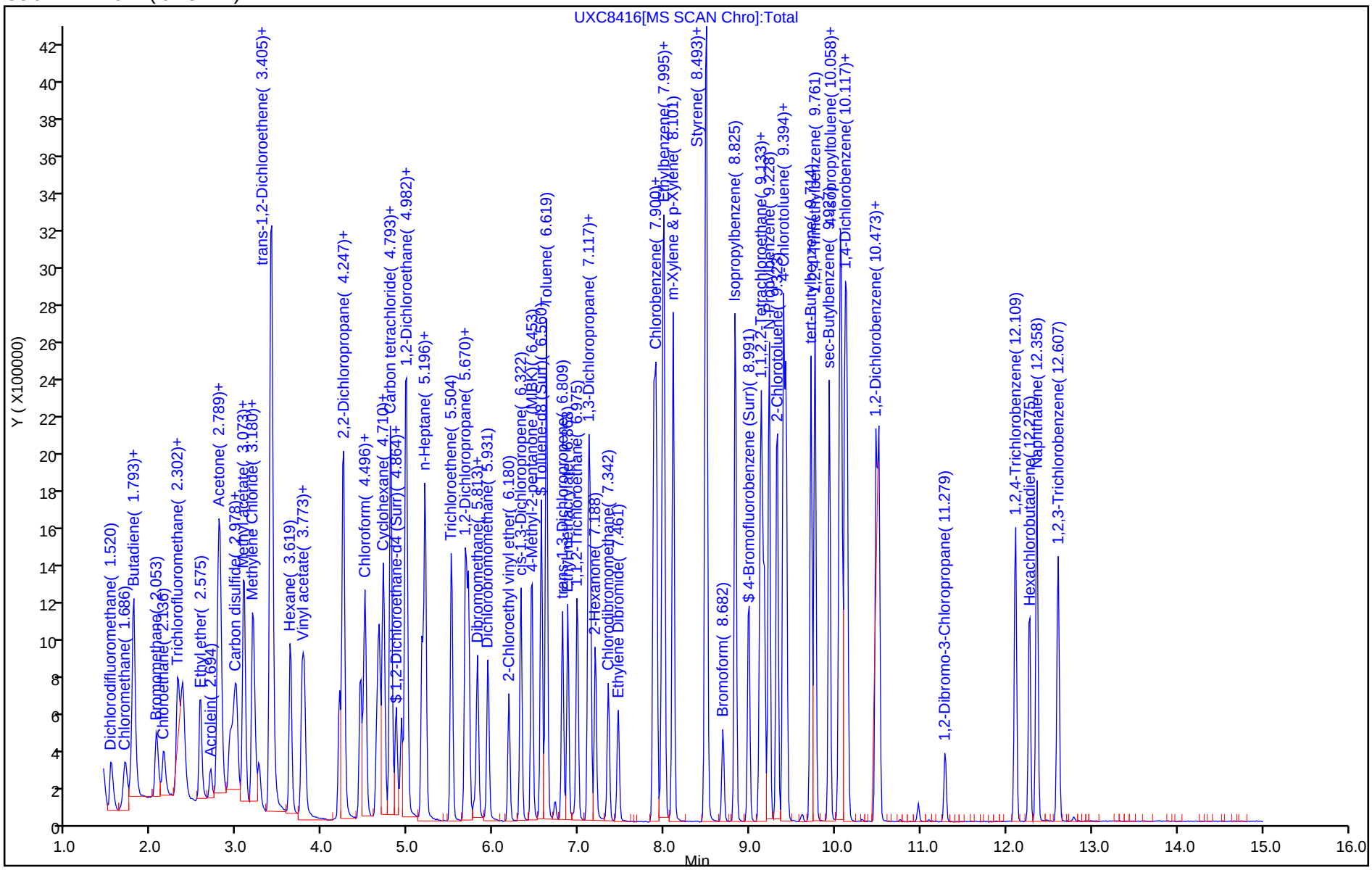
Report Date: 22-Jan-2019 09:10:17 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8416.D

Injection Date:	21-Jan-2019 13:48:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: ICV 240-364785/15 Calibration Date: 01/21/2019 16:21

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC8423.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2366	0.2218		0.00747	0.00797	-6.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2777		0.00728	0.00797	-8.7	50.0
Toluene-d8 (Surr)	Ave	1.214	1.132		0.00743	0.00797	-6.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4341	0.4058		0.00745	0.00797	-6.5	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8423.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 21-Jan-2019 16:21:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-015
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist:

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:10:13 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1778453	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	85	1420097	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	764446	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	314414	7.97	7.47	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	393596	7.97	7.28	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	1281042	7.97	7.43	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	97	459309	7.97	7.45	
26 Acetonitrile	41	3.061	3.050	0.011	98	427448	100.0	104.0	
35 Isopropyl ether	87	3.797	3.797	0.000	92	442161	10.0	10.3	
37 2-Chloro-1,3-butadiene	53	3.832	3.832	0.000	93	736814	10.0	9.78	
38 Tert-butyl ethyl ether	59	4.093	4.093	0.000	97	1388893	10.0	10.0	
42 Ethyl acetate	43	4.283	4.283	0.000	99	937785	20.0	20.8	
43 Propionitrile	54	4.307	4.307	0.000	99	677621	100.0	106.8	
44 Methacrylonitrile	41	4.437	4.425	0.012	92	3212963	100.0	104.3	
55 Tert-amyl methyl ether	73	5.054	5.042	0.012	98	1404415	10.0	10.2	
57 n-Butanol	56	5.421	5.421	0.000	89	269615	250.0	249.7	
59 Ethyl acrylate	55	5.575	5.575	0.000	99	624490	10.0	10.5	
62 Methyl methacrylate	41	5.777	5.777	0.000	91	913802	20.0	21.1	
66 2-Nitropropane	41	6.133	6.133	0.000	99	271968	20.0	20.5	
77 n-Butyl acetate	43	7.295	7.295	0.000	97	736671	10.0	10.6	
81 1-Chlorohexane	91	7.864	7.864	0.000	98	551389	10.0	9.79	
91 Cyclohexanone	55	8.943	8.931	0.012	94	139432	100.0	114.7	
102 Pentachloroethane	167	9.750	9.750	0.000	95	563326	20.0	19.5	
109 1,2,3-Trimethylbenzene	105	10.176	10.176	0.000	98	1800683	10.0	10.3	
110 Benzyl chloride	126	10.271	10.271	0.000	98	227669	10.0	10.1	
114 1,3,5-Trichlorobenzene	180	11.493	11.493	0.000	97	692380	10.0	9.57	
119 2-Methylnaphthalene	142	13.651	13.651	0.000	93	1419962	20.0	17.3	

Reagents:

VMFASA9W_00216	Amount Added:	8.00	Units: uL	
VM50IS_00072	Amount Added:	1.00	Units: uL	
vmDist_H2o_00124	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00079	Amount Added:	0.80	Units: uL	Run Reagent

Report Date: 22-Jan-2019 09:10:21 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8423.D

Injection Date: 21-Jan-2019 16:21:30 Instrument ID: A3UX15 Operator ID:

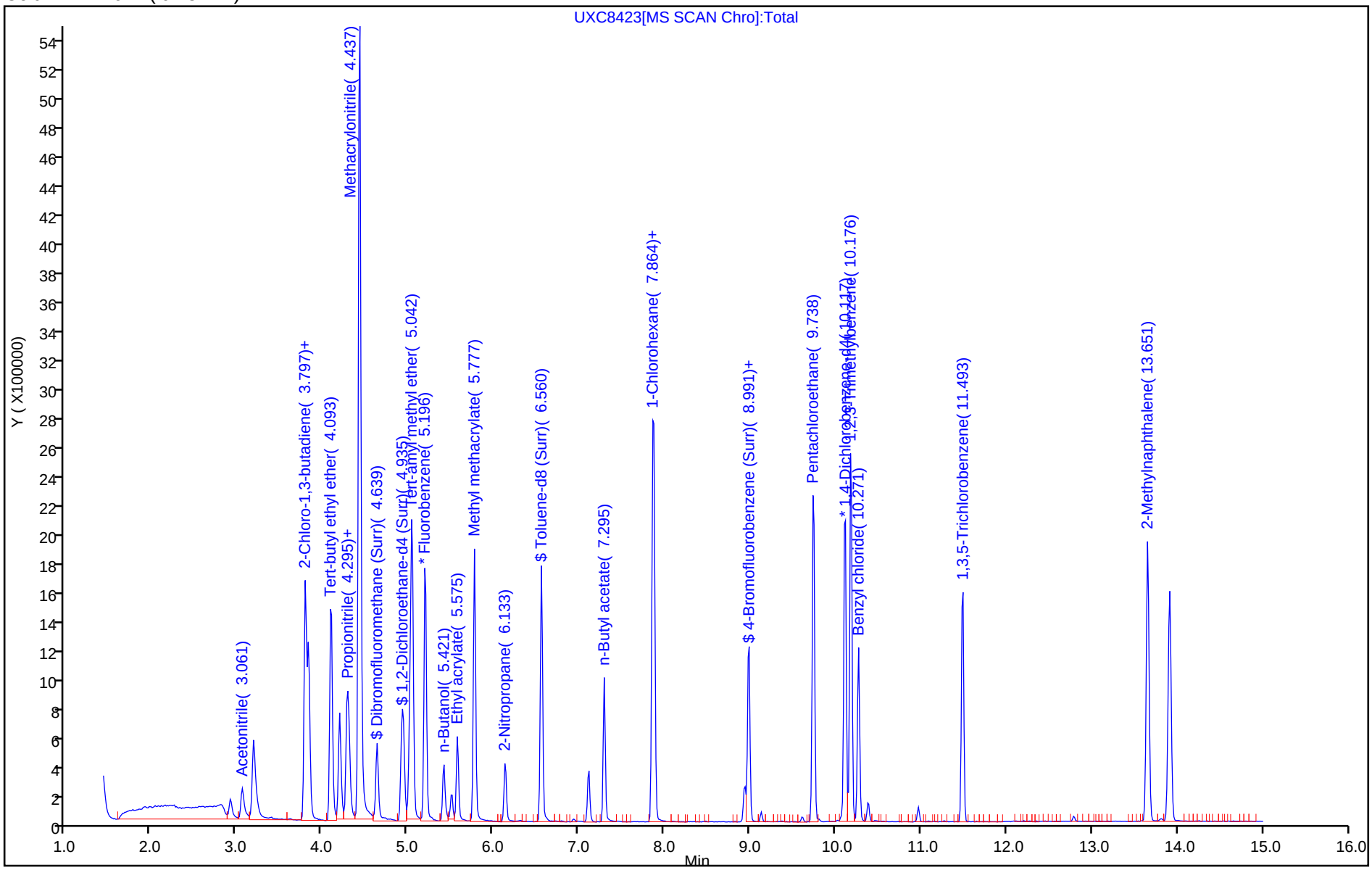
Lims ID: ICV A9 Worklist Smp#: 15

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 14

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: ICV 240-364785/15 Calibration Date: 01/21/2019 16:21

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 15:59

Lab File ID: UXC8423.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0231	0.0240		0.104	0.100	4.0	50.0
Isopropyl ether	Ave	0.2405	0.2486		0.0103	0.0100	3.4	50.0
2-Chloro-1,3-butadiene	Ave	0.4235	0.4143		0.00978	0.0100	-2.2	50.0
Tert-butyl ethyl ether	Ave	0.7799	0.7810		0.0100	0.0100	0.1	50.0
Ethyl acetate	Ave	0.2538	0.2637		0.0208	0.0200	3.9	50.0
Propionitrile	Ave	0.0357	0.0381		0.107	0.100	6.8	50.0
Methacrylonitrile	Ave	0.1733	0.1807		0.104	0.100	4.3	50.0
Tert-amyl methyl ether	Ave	0.7765	0.7897		0.0102	0.0100	1.7	50.0
n-Butanol	Ave	0.0061	0.0061		0.250	0.250	-0.1	50.0
Ethyl acrylate	Ave	0.3330	0.3511		0.0105	0.0100	5.4	50.0
Methyl methacrylate	Ave	0.2430	0.2569		0.0211	0.0200	5.7	50.0
2-Nitropropane	Ave	0.0745	0.0765		0.0205	0.0200	2.7	50.0
n-Butyl acetate	Ave	0.3918	0.4142		0.0106	0.0100	5.7	50.0
1-Chlorohexane	Ave	0.3968	0.3883		0.00979	0.0100	-2.1	50.0
Cyclohexanone	Lin1		0.0182		0.115	0.100	14.7	50.0
Pentachloroethane	Ave	0.2034	0.1983		0.0195	0.0200	-2.5	50.0
1,2,3-Trimethylbenzene	Ave	2.297	2.356		0.0103	0.0100	2.5	50.0
Benzyl chloride	Ave	0.2963	0.2978		0.0101	0.0100	0.5	50.0
1,3,5-Trichlorobenzene	Ave	0.9466	0.9057		0.00957	0.0100	-4.3	50.0
2-Methylnaphthalene	Ave	1.076	0.9288		0.0173	0.0200	-13.7	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8423.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 21-Jan-2019 16:21:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-015
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist:

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:10:13 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1778453	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	85	1420097	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	764446	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	314414	7.97	7.47	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	393596	7.97	7.28	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	1281042	7.97	7.43	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	97	459309	7.97	7.45	
26 Acetonitrile	41	3.061	3.050	0.011	98	427448	100.0	104.0	
35 Isopropyl ether	87	3.797	3.797	0.000	92	442161	10.0	10.3	
37 2-Chloro-1,3-butadiene	53	3.832	3.832	0.000	93	736814	10.0	9.78	
38 Tert-butyl ethyl ether	59	4.093	4.093	0.000	97	1388893	10.0	10.0	
42 Ethyl acetate	43	4.283	4.283	0.000	99	937785	20.0	20.8	
43 Propionitrile	54	4.307	4.307	0.000	99	677621	100.0	106.8	
44 Methacrylonitrile	41	4.437	4.425	0.012	92	3212963	100.0	104.3	
55 Tert-amyl methyl ether	73	5.054	5.042	0.012	98	1404415	10.0	10.2	
57 n-Butanol	56	5.421	5.421	0.000	89	269615	250.0	249.7	
59 Ethyl acrylate	55	5.575	5.575	0.000	99	624490	10.0	10.5	
62 Methyl methacrylate	41	5.777	5.777	0.000	91	913802	20.0	21.1	
66 2-Nitropropane	41	6.133	6.133	0.000	99	271968	20.0	20.5	
77 n-Butyl acetate	43	7.295	7.295	0.000	97	736671	10.0	10.6	
81 1-Chlorohexane	91	7.864	7.864	0.000	98	551389	10.0	9.79	
91 Cyclohexanone	55	8.943	8.931	0.012	94	139432	100.0	114.7	
102 Pentachloroethane	167	9.750	9.750	0.000	95	563326	20.0	19.5	
109 1,2,3-Trimethylbenzene	105	10.176	10.176	0.000	98	1800683	10.0	10.3	
110 Benzyl chloride	126	10.271	10.271	0.000	98	227669	10.0	10.1	
114 1,3,5-Trichlorobenzene	180	11.493	11.493	0.000	97	692380	10.0	9.57	
119 2-Methylnaphthalene	142	13.651	13.651	0.000	93	1419962	20.0	17.3	

Reagents:

VMFASA9W_00216	Amount Added:	8.00	Units: uL	
VM50IS_00072	Amount Added:	1.00	Units: uL	
vmDist_H2o_00124	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00079	Amount Added:	0.80	Units: uL	Run Reagent

Report Date: 22-Jan-2019 09:10:21 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8423.D

Injection Date: 21-Jan-2019 16:21:30 Instrument ID: A3UX15 Operator ID:

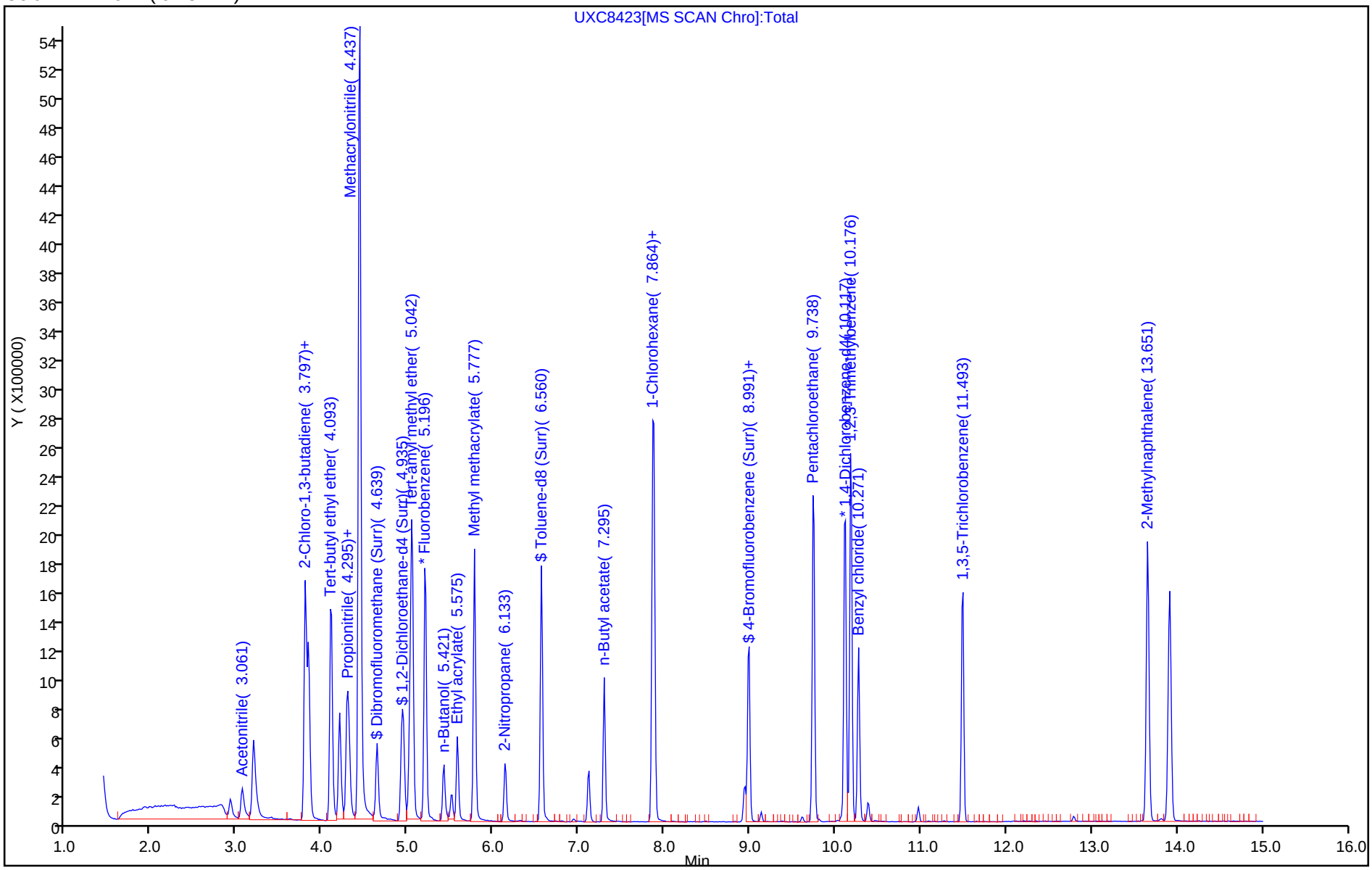
Lims ID: ICV A9 Worklist Smp#: 15

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 14

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: CCVIS 240-371207/2 Calibration Date: 03/12/2019 08:34

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC9298.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3072	0.2933		0.00955	0.0100	-4.5	50.0
Chloromethane	Ave	0.3135	0.2629	0.1000	0.00838	0.0100	-16.2	50.0
Vinyl chloride	Ave	0.2885	0.2711		0.00940	0.0100	-6.0	20.0
Butadiene	Ave	0.3794	0.2660		0.00701	0.0100	-29.9	50.0
Bromomethane	Ave	0.2308	0.1876		0.00813	0.0100	-18.7	50.0
Chloroethane	Ave	0.2041	0.1580		0.00774	0.0100	-22.6	50.0
Dichlorofluoromethane	Ave	0.5102	0.3971		0.00778	0.0100	-22.2	50.0
Trichlorofluoromethane	Ave	0.4337	0.4372		0.0101	0.0100	0.8	50.0
Ethyl ether	Ave	0.2310	0.1846		0.00799	0.0100	-20.1	50.0
Acrolein	Ave	0.0317	0.0247		0.0389	0.0500	-22.2	50.0
1,1-Dichloroethene	Ave	0.3005	0.2863		0.00953	0.0100	-4.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2468	0.2488		0.0101	0.0100	0.8	50.0
Acetone	Lin1		0.0168		0.0132	0.0200	-34.2	50.0
Iodomethane	Ave	0.4675	0.4929		0.0105	0.0100	5.4	50.0
Carbon disulfide	Ave	0.7741	0.5873		0.00759	0.0100	-24.1	50.0
3-Chloro-1-propene	Ave	0.1698	0.1474		0.00868	0.0100	-13.2	50.0
Methyl acetate	Ave	0.2050	0.1262		0.0123	0.0200	-38.4	50.0
Methylene Chloride	Lin1		0.2966		0.00947	0.0100	-5.3	50.0
2-Methyl-2-propanol	Ave	0.0203	0.0111		0.0546	0.100	-45.4	50.0
Acrylonitrile	Ave	0.0962	0.0661		0.0687	0.100	-31.3	50.0
Methyl tert-butyl ether	Ave	0.7834	0.5391		0.00688	0.0100	-31.2	50.0
trans-1,2-Dichloroethene	Ave	0.2795	0.2871		0.0103	0.0100	2.7	50.0
Hexane	Ave	0.0586	0.0486		0.00828	0.0100	-17.2	20.0
1,1-Dichloroethane	Ave	0.4517	0.4398	0.1000	0.00973	0.0100	-2.7	50.0
Vinyl acetate	Ave	0.5198	0.2682		0.00516	0.0100	-48.4	50.0
2,2-Dichloropropane	Ave	0.0624	0.0637		0.0102	0.0100	2.1	50.0
2-Butanone (MEK)	Ave	0.0333	0.0205		0.0123	0.0200	-38.4	50.0
cis-1,2-Dichloroethene	Ave	0.3078	0.3394		0.0110	0.0100	10.3	50.0
Chlorobromomethane	Ave	0.1531	0.1568		0.0102	0.0100	2.4	50.0
Tetrahydrofuran	Ave	0.0828	0.0427		0.0103	0.0200	-48.4	50.0
Chloroform	Ave	0.4606	0.4720		0.0102	0.0100	2.5	20.0
1,1,1-Trichloroethane	Ave	0.3546	0.3799		0.0107	0.0100	7.1	50.0
Cyclohexane	Ave	0.3993	0.3507		0.00878	0.0100	-12.2	50.0
1,1-Dichloropropene	Ave	0.3748	0.3546		0.00946	0.0100	-5.4	50.0
Carbon tetrachloride	Ave	0.3441	0.3315		0.00963	0.0100	-3.7	50.0
Isobutyl alcohol	Ave	0.0077	0.0046		0.150	0.250	-40.1	50.0
Benzene	Ave	1.116	1.109		0.00993	0.0100	-0.7	50.0
1,2-Dichloroethane	Ave	0.3820	0.3519		0.00921	0.0100	-7.9	50.0
n-Heptane	Ave	0.0532	0.0440		0.00827	0.0100	-17.3	50.0
Trichloroethene	Ave	0.3240	0.3422		0.0106	0.0100	5.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: CCVIS 240-371207/2 Calibration Date: 03/12/2019 08:34

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC9298.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3524	0.3214		0.00912	0.0100	-8.8	50.0
1,2-Dichloropropane	Ave	0.2590	0.2286		0.00883	0.0100	-11.7	20.0
1,4-Dioxane	Lin1		0.0019		0.178	0.200	-10.9	50.0
Dibromomethane	Ave	0.1717	0.1441		0.00839	0.0100	-16.1	50.0
Dichlorobromomethane	Ave	0.3410	0.2783		0.00816	0.0100	-18.4	50.0
2-Chloroethyl vinyl ether	Ave	0.1745	0.0934		0.0107	0.0200	-46.5	50.0
cis-1,3-Dichloropropene	Ave	0.3944	0.2705		0.00686	0.0100	-31.4	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2678	0.1426		0.0107	0.0200	-46.7	50.0
Toluene	Ave	1.476	1.427		0.00966	0.0100	-3.4	20.0
trans-1,3-Dichloropropene	Ave	0.4646	0.2833		0.00610	0.0100	-39.0	50.0
Ethyl methacrylate	Ave	0.4442	0.2582		0.00581	0.0100	-41.9	50.0
1,1,2-Trichloroethane	Ave	0.2982	0.2547		0.00854	0.0100	-14.6	50.0
Tetrachloroethene	Ave	0.3268	0.4040		0.0124	0.0100	23.6	50.0
1,3-Dichloropropane	Ave	0.5243	0.4296		0.00819	0.0100	-18.1	50.0
2-Hexanone	Ave	0.2283	0.1213		0.0106	0.0200	-46.9	50.0
Chlorodibromomethane	Ave	0.3116	0.2346		0.00753	0.0100	-24.7	50.0
Ethylene Dibromide	Ave	0.3191	0.2415		0.00757	0.0100	-24.3	50.0
Chlorobenzene	Ave	0.9777	0.9615	0.3000	0.00983	0.0100	-1.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3450	0.3193		0.00925	0.0100	-7.5	50.0
Ethylbenzene	Ave	0.5145	0.4877		0.00948	0.0100	-5.2	20.0
m-Xylene & p-Xylene	Ave	1.221	1.163		0.00953	0.0100	-4.7	50.0
o-Xylene	Ave	0.6189	0.5953		0.00962	0.0100	-3.8	50.0
Styrene	Ave	1.036	0.998		0.00964	0.0100	-3.6	50.0
Bromoform	Lin1		0.1257	0.1000	0.00557	0.0100	-44.3	50.0
Isopropylbenzene	Ave	1.463	1.394		0.00952	0.0100	-4.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7086	0.4753	0.3000	0.00671	0.0100	-32.9	50.0
Bromobenzene	Ave	0.8274	0.7571		0.00915	0.0100	-8.5	50.0
1,2,3-Trichloropropane	Ave	0.2468	0.1697		0.00688	0.0100	-31.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1014	0.0652		0.00643	0.0100	-35.7	50.0
N-Propylbenzene	Ave	0.7286	0.6540		0.00898	0.0100	-10.2	50.0
2-Chlorotoluene	Ave	0.6821	0.6208		0.00910	0.0100	-9.0	50.0
1,3,5-Trimethylbenzene	Ave	2.119	1.879		0.00887	0.0100	-11.3	50.0
4-Chlorotoluene	Ave	2.205	1.964		0.00890	0.0100	-11.0	50.0
tert-Butylbenzene	Ave	1.897	1.552		0.00818	0.0100	-18.2	50.0
1,2,4-Trimethylbenzene	Ave	2.227	2.021		0.00907	0.0100	-9.3	50.0
sec-Butylbenzene	Ave	2.327	2.016		0.00867	0.0100	-13.3	50.0
1,3-Dichlorobenzene	Ave	1.425	1.327		0.00931	0.0100	-6.9	50.0
4-Isopropyltoluene	Ave	2.083	1.848		0.00887	0.0100	-11.3	50.0
1,4-Dichlorobenzene	Ave	1.477	1.360		0.00920	0.0100	-8.0	50.0
n-Butylbenzene	Ave	1.649	1.337		0.00811	0.0100	-18.9	50.0
1,2-Dichlorobenzene	Ave	1.387	1.303		0.00939	0.0100	-6.1	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Lab Sample ID: CCVIS 240-371207/2 Calibration Date: 03/12/2019 08:34

Instrument ID: A3UX15 Calib Start Date: 01/21/2019 11:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/21/2019 13:26

Lab File ID: UXC9298.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1611	0.0703		0.00436	0.0100	-56.4*	50.0
1,2,4-Trichlorobenzene	Ave	0.8784	0.7280		0.00829	0.0100	-17.1	50.0
Hexachlorobutadiene	Qua		0.3772		0.00840	0.0100	-16.0	50.0
Naphthalene	Ave	2.209	1.291		0.00584	0.0100	-41.6	50.0
1,2,3-Trichlorobenzene	Ave	0.7902	0.6878		0.00870	0.0100	-13.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2366	0.2124		0.00715	0.00797	-10.2	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2390		0.00626	0.00797	-21.4	50.0
Toluene-d8 (Surr)	Ave	1.214	1.020		0.00670	0.00797	-15.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4341	0.3479		0.00639	0.00797	-19.9	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9298.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Mar-2019 08:34:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0085087-002
Misc. Info.: C90312A,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Mar-2019 12:09:08 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	2003635	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	83	1569155	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	92	953174	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.638	4.638	0.000	95	339142	7.97	7.15	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	381604	7.97	6.26	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	92	1275942	7.97	6.70	
$ 7 4-Bromofluorobenzene (Surr	95	8.991	8.991	0.000	96	435081	7.97	6.39	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	587593	10.0	9.55	
10 Chloromethane	50	1.674	1.674	0.000	99	526648	10.0	8.38	
11 Vinyl chloride	62	1.769	1.769	0.000	98	543177	10.0	9.40	
12 Butadiene	54	1.792	1.792	0.000	99	532903	10.0	7.01	
13 Bromomethane	94	2.053	2.053	0.000	90	375893	10.0	8.13	
14 Chloroethane	64	2.136	2.136	0.000	99	316622	10.0	7.74	
15 Dichlorofluoromethane	67	2.302	2.302	0.000	97	795695	10.0	7.78	
16 Trichlorofluoromethane	101	2.350	2.350	0.000	98	876009	10.0	10.1	
17 Ethyl ether	59	2.563	2.563	0.000	89	369842	10.0	7.99	
18 Acrolein	56	2.694	2.694	0.000	100	246925	50.0	38.9	
19 1,1-Dichloroethene	96	2.777	2.777	0.000	98	573722	10.0	9.53	
20 1,1,2-Trichloro-1,2,2-trif	151	2.789	2.789	0.000	85	498490	10.0	10.1	
22 Acetone	58	2.812	2.812	0.000	99	67253	20.0	13.2	
23 Iodomethane	142	2.919	2.919	0.000	97	987636	10.0	10.5	
24 Carbon disulfide	76	2.978	2.978	0.000	99	1176673	10.0	7.59	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	88	295280	10.0	8.68	
27 Methyl acetate	43	3.085	3.085	0.000	97	505894	20.0	12.3	
28 Methylene Chloride	84	3.180	3.180	0.000	90	594310	10.0	9.47	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	91	221786	100.0	54.6	
32 Acrylonitrile	53	3.393	3.393	0.000	99	1323307	100.0	68.7	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	1080185	10.0	6.88	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	96	575168	10.0	10.3	
33 Hexane	86	3.631	3.631	0.000	94	97286	10.0	8.28	
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	881122	10.0	9.73	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.785	3.785	0.000	97	537313	10.0	5.16	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	78	127595	10.0	10.2	
39 cis-1,2-Dichloroethene	96	4.247	4.247	0.000	79	680076	10.0	11.0	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	98	82090	20.0	12.3	
45 Chlorobromomethane	128	4.449	4.449	0.000	87	314156	10.0	10.2	
46 Tetrahydrofuran	42	4.484	4.484	0.000	86	171259	20.0	10.3	
47 Chloroform	83	4.496	4.496	0.000	92	945659	10.0	10.2	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	99	761203	10.0	10.7	
49 Cyclohexane	56	4.710	4.710	0.000	88	702680	10.0	8.78	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	95	710517	10.0	9.46	
50 Carbon tetrachloride	117	4.805	4.805	0.000	96	664196	10.0	9.63	
52 Isobutyl alcohol	41	4.864	4.864	0.000	91	230539	250.0	149.8	
53 Benzene	78	4.971	4.971	0.000	95	2222023	10.0	9.93	
54 1,2-Dichloroethane	62	4.982	4.982	0.000	98	704969	10.0	9.21	
56 n-Heptane	100	5.172	5.172	0.000	87	88166	10.0	8.27	
58 Trichloroethene	130	5.504	5.504	0.000	94	685717	10.0	10.6	
60 Methylcyclohexane	83	5.670	5.670	0.000	89	643985	10.0	9.12	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	94	458038	10.0	8.83	
63 Dibromomethane	93	5.812	5.812	0.000	87	288740	10.0	8.39	
64 1,4-Dioxane	88	5.812	5.812	0.000	35	75652	200.0	178.3	
65 Dichlorobromomethane	83	5.931	5.931	0.000	99	557545	10.0	8.16	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	94	374176	20.0	10.7	
68 cis-1,3-Dichloropropene	75	6.322	6.322	0.000	95	542036	10.0	6.86	
69 4-Methyl-2-pentanone (MIBK	43	6.453	6.453	0.000	96	571566	20.0	10.7	
70 Toluene	91	6.619	6.619	0.000	98	2238439	10.0	9.66	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	93	444532	10.0	6.10	
72 Ethyl methacrylate	69	6.868	6.868	0.000	87	405142	10.0	5.81	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	399655	10.0	8.54	
74 Tetrachloroethene	164	7.117	7.117	0.000	95	633865	10.0	12.4	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	91	674081	10.0	8.19	
76 2-Hexanone	43	7.200	7.200	0.000	95	380545	20.0	10.6	
79 Chlorodibromomethane	129	7.342	7.342	0.000	90	368132	10.0	7.53	
80 Ethylene Dibromide	107	7.461	7.461	0.000	99	378902	10.0	7.57	
82 Chlorobenzene	112	7.900	7.900	0.000	96	1508670	10.0	9.83	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	93	501018	10.0	9.25	
84 Ethylbenzene	106	7.994	7.994	0.000	98	765265	10.0	9.48	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	1825294	10.0	9.53	
86 o-Xylene	106	8.481	8.481	0.000	96	934182	10.0	9.62	
87 Styrene	104	8.493	8.493	0.000	94	1566225	10.0	9.64	
88 Bromoform	173	8.682	8.682	0.000	98	197263	10.0	5.57	
89 Isopropylbenzene	105	8.836	8.836	0.000	95	2186874	10.0	9.52	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	453075	10.0	6.71	
92 Bromobenzene	156	9.145	9.145	0.000	86	721611	10.0	9.15	
95 trans-1,4-Dichloro-2-buten	53	9.168	9.168	0.000	73	62129	10.0	6.43	
94 1,2,3-Trichloropropane	110	9.168	9.168	0.000	86	161792	10.0	6.88	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	623396	10.0	8.98	
97 2-Chlorotoluene	126	9.323	9.323	0.000	97	591686	10.0	9.10	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	1790862	10.0	8.87	
99 4-Chlorotoluene	91	9.417	9.417	0.000	98	1871888	10.0	8.90	
101 tert-Butylbenzene	119	9.714	9.714	0.000	91	1479519	10.0	8.18	
103 1,2,4-Trimethylbenzene	105	9.761	9.761	0.000	94	1926250	10.0	9.07	
105 sec-Butylbenzene	105	9.927	9.927	0.000	94	1921808	10.0	8.67	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	98	1264508	10.0	9.31	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	96	1761408	10.0	8.87	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	96	1296077	10.0	9.20	
111 n-Butylbenzene	91	10.473	10.473	0.000	96	1274350	10.0	8.11	
112 1,2-Dichlorobenzene	146	10.508	10.508	0.000	99	1241754	10.0	9.39	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	92	66967	10.0	4.36	
115 1,2,4-Trichlorobenzene	180	12.109	12.109	0.000	93	693931	10.0	8.29	
116 Hexachlorobutadiene	225	12.275	12.275	0.000	92	359536	10.0	8.40	
117 Naphthalene	128	12.358	12.358	0.000	96	1230752	10.0	5.84	
118 1,2,3-Trichlorobenzene	180	12.607	12.607	0.000	95	655623	10.0	8.70	
S 129 Xylenes, Total	106				0		20.0	19.1	
S 157 Total BTEX	1		0.000				50.0	ND	
S 130 Trihalomethanes, Total	1				0		40.0	31.5	

Reagents:

VMRGAS_00284	Amount Added:	8.00	Units: uL	
VMRPRIMW_00325	Amount Added:	8.00	Units: uL	
VMAROLISTDW_00288	Amount Added:	8.00	Units: uL	
vm40ml_vials_00009	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00075	Amount Added:	1.00	Units: uL	Run Reagent
vm50ss_stk_00080	Amount Added:	0.80	Units: uL	Run Reagent
vmDist_H2o_00140	Amount Added:	0.00	Units:	Run Reagent

Report Date: 12-Mar-2019 12:09:09 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9298.D

Injection Date: 12-Mar-2019 08:34:30 Instrument ID: A3UX15 Operator ID:

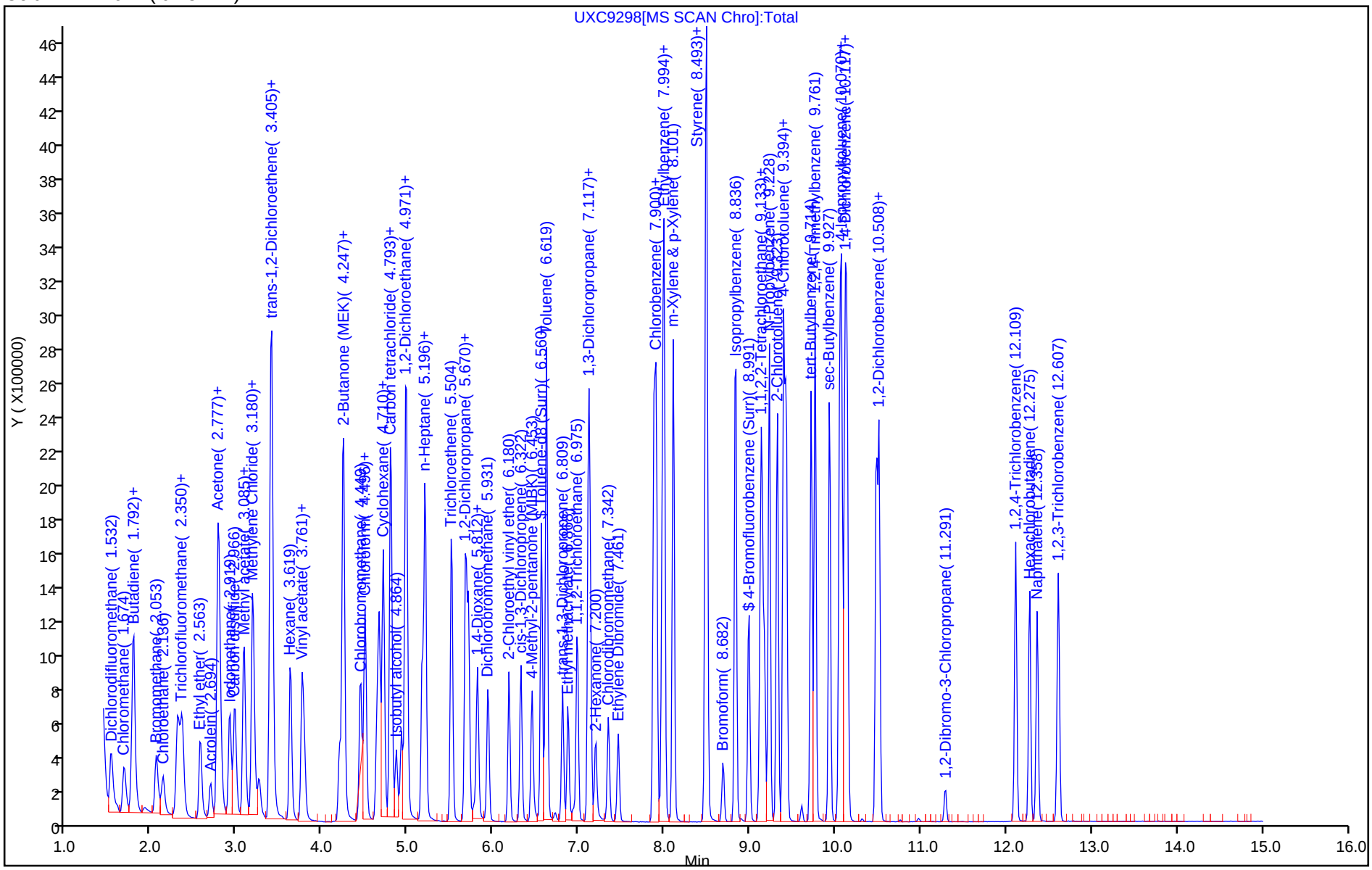
Lims ID: CCVIS L4 8260 Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 1

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



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

Lab Name: TestAmerica Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-364785/7	UXC8415.D
Level 2	STD8260 240-364785/6	UXC8414.D
Level 3	STD8260 240-364785/5	UXC8413.D
Level 4	STD8260 240-364785/4	UXC8412.D
Level 5	STD8260 240-364785/3	UXC8411.D
Level 6	STD8260 240-364785/2	UXC8410.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 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2704 0.3071	0.3084	0.3222	0.3169	0.3182	Ave		0.3072				6.2		15.0			
Chloromethane	0.3289 0.2976	0.3274	0.3004	0.3124	0.3145	Ave		0.3135			0.1000	4.2		15.0			
Vinyl chloride	0.3261 0.2600	0.2864	0.2844	0.3065	0.2674	Ave		0.2885				8.5		15.0			
Butadiene	0.4028 0.3420	0.4066	0.3934	0.3729	0.3588	Ave		0.3794				6.8		15.0			
Bromomethane	0.2686 0.1933	0.2748	0.2163	0.2258	0.2060	Ave		0.2308				14.5		15.0			
Chloroethane	0.2298 0.1805	0.2264	0.1983	0.1989	0.1909	Ave		0.2041				9.7		15.0			
Dichlorofluoromethane	0.5874 0.4462	0.5508	0.5133	0.4857	0.4776	Ave		0.5102				10.1		15.0			
Trichlorofluoromethane	0.3885 0.4373	0.4314	0.4444	0.4568	0.4435	Ave		0.4337				5.5		15.0			
Ethyl ether	0.2527 0.2122	0.2393	0.2313	0.2239	0.2264	Ave		0.2310				6.0		15.0			
Acrolein	0.0365 0.0295	0.0303	0.0315	0.0310	0.0314	Ave		0.0317				7.8		15.0			
1,1-Dichloroethene	0.3235 0.2800	0.3292	0.3015	0.2758	0.2929	Ave		0.3005				7.3		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2411 0.2414	0.2509	0.2485	0.2467	0.2520	Ave		0.2468				1.9		15.0			
Acetone	0.0487 0.0213	0.0318	0.0276	0.0238	0.0247	Lin1	0.0519	0.0216							0.9960		0.9900
Iodomethane	0.5303 0.4178	0.4271	0.4860	0.4853	0.4584	Ave		0.4675				9.0		15.0			
Carbon disulfide	0.9104 0.6640	0.7771	0.8074	0.7715	0.7145	Ave		0.7741				10.9		15.0			

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 Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

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 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1530 0.1820	0.1600	0.1683	0.1693	0.1865	Ave		0.1698				7.5		15.0			
Methyl acetate	0.2259 0.1968	0.2056	0.2072	0.1929	0.2018	Ave		0.2050				5.6		15.0			
Methylene Chloride	0.8777 0.2608	0.5429	0.3681	0.3100	0.2858	Lin1	0.6169	0.2481							0.9990		0.9900
2-Methyl-2-propanol	0.0205 0.0194	0.0225	0.0201	0.0175	0.0217	Ave		0.0203				8.7		15.0			
Acrylonitrile	0.0992 0.0981	0.0964	0.0945	0.0907	0.0981	Ave		0.0962				3.3		15.0			
Methyl tert-butyl ether	0.7930 0.7799	0.7813	0.7775	0.7682	0.8007	Ave		0.7834				1.5		15.0			
trans-1,2-Dichloroethene	0.3101 0.2660	0.2823	0.2736	0.2669	0.2784	Ave		0.2795				5.8		15.0			
Hexane	0.0608 0.0585	0.0607	0.0559	0.0560	0.0600	Ave		0.0586				3.8		15.0			
1,1-Dichloroethane	0.4596 0.4425	0.4568	0.4457	0.4441	0.4617	Ave		0.4517			0.1000	1.9		15.0			
Vinyl acetate	0.4987 0.5397	0.4861	0.5183	0.5294	0.5465	Ave		0.5198				4.5		15.0			
cis-1,2-Dichloroethene	0.3231 0.2906	0.3188	0.3032	0.3017	0.3096	Ave		0.3078				3.9		15.0			
2,2-Dichloropropane	0.0662 0.0571	0.0600	0.0637	0.0645	0.0628	Ave		0.0624				5.3		15.0			
2-Butanone (MEK)	0.0354 0.0328	0.0334	0.0325	0.0320	0.0334	Ave		0.0333				3.6		15.0			
Chlorobromomethane	0.1617 0.1477	0.1552	0.1523	0.1470	0.1549	Ave		0.1531				3.6		15.0			
Tetrahydrofuran	0.0906 0.0816	0.0853	0.0820	0.0745	0.0826	Ave		0.0828				6.4		15.0			
Chloroform	0.4755 0.4441	0.4649	0.4595	0.4523	0.4670	Ave		0.4606				2.4		15.0			
1,1,1-Trichloroethane	0.3615 0.3251	0.3567	0.3634	0.3678	0.3533	Ave		0.3546				4.3		15.0			
Cyclohexane	0.3905 0.3986	0.3949	0.4008	0.3961	0.4147	Ave		0.3993				2.1		15.0			
1,1-Dichloropropene	0.3764 0.3614	0.3858	0.3737	0.3673	0.3839	Ave		0.3748				2.5		15.0			
Carbon tetrachloride	0.3226 0.3473	0.3407	0.3468	0.3462	0.3607	Ave		0.3441				3.6		15.0			

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 Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

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 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0072 0.0077	0.0080	0.0077	0.0069	0.0086	Ave		0.0077				7.7		15.0			
Benzene	1.1739 1.0767	1.1296	1.1053	1.0802	1.1333	Ave		1.1165				3.3		15.0			
1,2-Dichloroethane	0.3855 0.3692	0.3897	0.3815	0.3777	0.3886	Ave		0.3820				2.0		15.0			
n-Heptane	0.0499 0.0533	0.0523	0.0527	0.0543	0.0568	Ave		0.0532				4.3		15.0			
Trichloroethene	0.3350 0.3084	0.3298	0.3223	0.3165	0.3318	Ave		0.3240				3.1		15.0			
Methylcyclohexane	0.3407 0.3494	0.3484	0.3548	0.3494	0.3719	Ave		0.3524				3.0		15.0			
1,2-Dichloropropane	0.2476 0.2542	0.2676	0.2609	0.2580	0.2658	Ave		0.2590				2.9		15.0			
Dibromomethane	0.1763 0.1613	0.1789	0.1712	0.1695	0.1730	Ave		0.1717				3.6		15.0			
1,4-Dioxane	0.0015 0.0021	0.0019	0.0021	0.0019	0.0024	Lin1	-0.013	0.0022							0.9940		0.9900
Dichlorobromomethane	0.3251 0.3470	0.3335	0.3329	0.3402	0.3670	Ave		0.3410				4.3		15.0			
2-Chloroethyl vinyl ether	0.1741 0.1794	0.1688	0.1738	0.1710	0.1802	Ave		0.1745				2.6		15.0			
cis-1,3-Dichloropropene	0.3518 0.4202	0.3782	0.3877	0.3983	0.4304	Ave		0.3944				7.3		15.0			
4-Methyl-2-pentanone (MIBK)	0.2785 0.2686	0.2562	0.2693	0.2591	0.2753	Ave		0.2678				3.3		15.0			
Toluene	1.5012 1.4288	1.4730	1.4635	1.4625	1.5286	Ave		1.4763				2.3		15.0			
trans-1,3-Dichloropropene	0.4131 0.5013	0.4307	0.4524	0.4755	0.5145	Ave		0.4646				8.6		15.0			
Ethyl methacrylate	0.4397 0.4538	0.4440	0.4290	0.4357	0.4632	Ave		0.4442				2.8		15.0			
1,1,2-Trichloroethane	0.2996 0.2912	0.3009	0.2966	0.2943	0.3064	Ave		0.2982				1.8		15.0			
Tetrachloroethene	0.3214 0.3151	0.3301	0.3272	0.3250	0.3419	Ave		0.3268				2.8		15.0			
1,3-Dichloropropane	0.5170 0.5210	0.5290	0.5125	0.5245	0.5419	Ave		0.5243				2.0		15.0			
2-Hexanone	0.2098 0.2323	0.2329	0.2285	0.2242	0.2423	Ave		0.2283				4.8		15.0			

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 Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

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 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2647 0.3480	0.2850	0.3021	0.3162	0.3534	Ave		0.3116				11.2		15.0			
Ethylene Dibromide	0.3243 0.3131	0.3134	0.3221	0.3160	0.3258	Ave		0.3191				1.8		15.0			
Chlorobenzene	0.9888 0.9546	0.9840	0.9675	0.9702	1.0011	Ave		0.9777			0.3000	1.7		15.0			
1,1,1,2-Tetrachloroethane	0.3344 0.3512	0.3269	0.3433	0.3517	0.3627	Ave		0.3450				3.8		15.0			
Ethylbenzene	0.5276 0.5075	0.5044	0.5075	0.5104	0.5293	Ave		0.5145				2.1		15.0			
m-Xylene & p-Xylene	1.2031 1.2384	1.2096	1.1828	1.2237	1.2677	Ave		1.2209				2.4		15.0			
o-Xylene	0.6311 0.6050	0.6086	0.6092	0.6181	0.6414	Ave		0.6189				2.3		15.0			
Styrene	0.9861 1.0619	0.9946	1.0226	1.0439	1.1061	Ave		1.0359				4.3		15.0			
Bromoform	0.1422 0.2592	0.1774	0.1876	0.2065	0.2510	Lin1	-0.162	0.2546			0.1000				0.9940		0.9900
Isopropylbenzene	1.4236 1.4623	1.4332	1.4499	1.4809	1.5299	Ave		1.4633				2.6		15.0			
1,1,2,2-Tetrachloroethane	0.7263 0.6975	0.7108	0.7013	0.6946	0.7209	Ave		0.7086			0.3000	1.8		15.0			
Bromobenzene	0.8425 0.8141	0.8308	0.8169	0.8158	0.8444	Ave		0.8274				1.7		15.0			
1,2,3-Trichloropropane	0.2495 0.2424	0.2553	0.2455	0.2417	0.2464	Ave		0.2468				2.0		15.0			
trans-1,4-Dichloro-2-butene	0.0434 0.1642	0.1010	0.0590	0.0798	0.1609	Ave		0.1014				50.5	*	15.0			
N-Propylbenzene	0.7265 0.7228	0.7398	0.7179	0.7231	0.7419	Ave		0.7286				1.3		15.0			
2-Chlorotoluene	0.7109 0.6635	0.6787	0.6802	0.6673	0.6918	Ave		0.6821				2.5		15.0			
1,3,5-Trimethylbenzene	2.1272 2.0859	2.0953	2.0772	2.1235	2.2036	Ave		2.1188				2.2		15.0			
4-Chlorotoluene	2.2568 2.1504	2.2467	2.1776	2.1619	2.2388	Ave		2.2054				2.1		15.0			
tert-Butylbenzene	1.8677 1.9925	1.8939	1.8513	1.8658	1.9133	Ave		1.8974				2.7		15.0			
1,2,4-Trimethylbenzene	2.2391 2.1885	2.2675	2.1657	2.2226	2.2813	Ave		2.2275				2.0		15.0			

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 Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

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 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.2915 2.2504	2.3538	2.3171	2.3275	2.4198	Ave		2.3267				2.5		15.0			
1,3-Dichlorobenzene	1.4983 1.3538	1.4434	1.4148	1.4043	1.4340	Ave		1.4248				3.4		15.0			
4-Isopropyltoluene	2.0430 2.0131	2.1052	2.0529	2.1055	2.1774	Ave		2.0829				2.8		15.0			
1,4-Dichlorobenzene	1.5786 1.4104	1.5222	1.4387	1.4418	1.4716	Ave		1.4772				4.2		15.0			
n-Butylbenzene	1.6870 1.5530	1.6578	1.6297	1.6645	1.6997	Ave		1.6486				3.2		15.0			
1,2-Dichlorobenzene	1.4437 1.3061	1.4168	1.3751	1.3937	1.3869	Ave		1.3871				3.4		15.0			
1,2-Dibromo-3-Chloropropane	0.1400 0.1672	0.1533	0.1616	0.1661	0.1785	Ave		0.1611				8.2		15.0			
1,2,4-Trichlorobenzene	0.9724 0.7297	0.9185	0.8808	0.8895	0.8794	Ave		0.8784				9.2		15.0			
Hexachlorobutadiene	0.5543 0.3117	0.4931	0.4340	0.4326	0.4056	Qua	-0.024	0.4891	-0.004405						0.9990		0.9900
Naphthalene	2.2857 1.9486	2.1983	2.2894	2.2740	2.2589	Ave		2.2091				6.0		15.0			
1,2,3-Trichlorobenzene	0.8662 0.6533	0.8274	0.8022	0.7980	0.7943	Ave		0.7902				9.1		15.0			
Dibromofluoromethane (Surr)	0.2371 0.2318	0.2202	0.2449	0.2390	0.2468	Ave		0.2366				4.1		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3138 0.2896	0.2914	0.3140	0.3062	0.3101	Ave		0.3042				3.6		15.0			
Toluene-d8 (Surr)	1.2471 1.1640	1.1461	1.2369	1.2229	1.2656	Ave		1.2138				3.9		15.0			
4-Bromofluorobenzene (Surr)	0.4328 0.4271	0.4150	0.4450	0.4370	0.4478	Ave		0.4341				2.8		15.0			

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 Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-364785/7	UXC8415.D
Level 2	STD8260 240-364785/6	UXC8414.D
Level 3	STD8260 240-364785/5	UXC8413.D
Level 4	STD8260 240-364785/4	UXC8412.D
Level 5	STD8260 240-364785/3	UXC8411.D
Level 6	STD8260 240-364785/2	UXC8410.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	47729 2392918	112693	296202	593761	1222220	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	58046 2319242	119628	276149	585358	1207742	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	57558 2025909	104647	261470	574312	1027051	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	71088 2665435	148568	361713	698736	1378009	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	47411 1506749	100403	198900	423055	791041	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	40558 1406432	82718	182320	372694	733356	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	103682 3477509	201291	471934	910063	1834172	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	68568 3407867	157640	408598	855986	1703371	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	44605 1653914	87432	212667	419544	869536	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	32229 1148055	55282	144856	290454	603583	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	57094 2182381	120279	277159	516876	1125076	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	42550 1880984	91700	228498	462285	967763	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Lin1	17181 332724	23252	50751	89168	190030	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	93588 3255913	156089	446819	909454	1760595	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	160687 5174431	283969	742305	1445567	2744114	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	27003 1418141	58477	154763	317161	716236	1.00 40.0	2.00	5.00	10.0	20.0

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

Lab Name: TestAmerica Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	79740 3067156	150240	380996	723073	1550490	2.00 80.0	4.00	10.0	20.0	40.0
Methylene Chloride	FB	Lin1	154915 2032773	198393	338417	580808	1097865	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	36240 1508945	82343	184510	328142	832907	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	175156 7643188	352291	868795	1699336	3768272	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	139955 6078083	285516	714788	1439491	3075308	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	54736 2072831	103155	251570	500088	1069131	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	10725 455555	22194	51427	104918	230317	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	81126 3448011	166930	409730	832192	1773410	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	88027 4206187	177639	476538	992089	2098831	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	57035 2264494	116480	278759	565374	1189038	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	11684 445323	21907	58586	120845	241048	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	12505 511818	24387	59681	120010	256717	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	28543 1150919	56716	140018	275468	595090	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	31985 1272086	62314	150812	279158	634219	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	83929 3460990	169874	422474	847597	1793716	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	63803 2533663	130349	334136	689229	1356966	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	68915 3105972	144320	368473	742256	1592895	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	66437 2816568	140972	343617	688186	1474449	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	56945 2706723	124489	318843	648774	1385341	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	FB	Ave	31904 1496664	73133	177736	322275	821992	25.0 1000	50.0	125	250	500
Benzene	FB	Ave	207184 8390558	412777	1016161	2024145	4352726	1.00 40.0	2.00	5.00	10.0	20.0

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

Lab Name: TestAmerica Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	68031 2877185	142414	350758	707702	1492475	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	8801 415529	19095	48491	101813	218160	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	59121 2403531	120531	296310	593061	1274454	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	60130 2723193	127322	326169	654672	1428283	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	43707 1981074	97800	239856	483376	1020861	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	31111 1256838	65366	157375	317664	664429	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Lin1	5185 326819	14227	39232	71764	183906	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	57382 2704273	121869	306036	637533	1409597	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	61442 2796269	123378	319533	640886	1383920	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	62099 3274371	138202	356486	746312	1652896	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	98299 4186633	187250	495239	970866	2114735	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	209687 9034071	428381	1080197	2172974	4691174	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	57707 3169409	125256	333930	706531	1578892	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	61421 2869285	129112	316654	647349	1421429	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	41853 1840913	87521	218933	437245	940456	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	44889 1992562	95990	241473	482895	1049416	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	72217 3294456	153833	378264	779324	1663194	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	58616 2937075	135481	337296	666112	1487023	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	36977 2200067	82891	222991	469828	1084488	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	45295 1979685	91132	237763	469490	999728	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	138107 6035718	286159	714138	1441533	3072375	1.00 40.0	2.00	5.00	10.0	20.0

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

Lab Name: TestAmerica Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	46702 2220799	95060	253355	522591	1113186	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	73699 3208633	146696	374569	758362	1624425	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	168049 7830315	351787	872988	1818169	3890600	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	88147 3825283	176986	449671	918350	1968397	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	137740 6714209	289260	754758	1550959	3394736	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Lin1	19867 1639155	51580	138461	306750	770158	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	198841 9246149	416807	1070139	2200366	4695119	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	54865 2441270	112833	283791	577712	1238040	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	63640 2849353	131876	330598	678570	1450127	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	18846 848462	40526	99350	201010	423192	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3277 574750	16039	23872	66363	276245	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	54874 2529942	117423	290505	601438	1274023	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	53702 2322347	107735	275264	555062	1188057	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	160683 7300680	332591	840604	1766210	3784392	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	170473 7526400	356628	881245	1798133	3844885	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	141080 6973779	300630	749194	1551899	3285832	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	169136 7660047	359918	876431	1848645	3917785	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	173094 7876504	373619	937713	1935865	4155710	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	113176 4738373	229119	572540	1168047	2462678	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	154318 7046098	334169	830781	1751242	3739399	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	119243 4936571	241629	582208	1199185	2527274	1.00 40.0	2.00	5.00	10.0	20.0

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

Lab Name: TestAmerica Canton Job No.: 240-109197-1 Analy Batch No.: 364785

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2019 11:37 Calibration End Date: 01/21/2019 13:26 Calibration ID: 49063

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	127428 5435677	263153	659506	1384405	2918965	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	109056 4571601	224899	556492	1159176	2381785	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	10572 585195	24334	65389	138143	306515	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	73453 2553990	145803	356465	739836	1510157	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Qua	41867 1091039	78276	175613	359850	696597	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	172653 6820199	348942	926474	1891386	3879317	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	65430 2286670	131338	324635	663704	1364016	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	41840 1806247	80448	225163	447792	947952	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	55383 2257190	106482	288691	573781	1190875	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	174193 7359833	333303	912990	1816996	3883966	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	60446 2700470	120695	328418	649263	1374232	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8410.D
Lims ID: STD8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Jan-2019 11:37:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-002
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:12:44 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: evansle Date: 22-Jan-2019 09:12:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.208	5.196	0.012	99	1948244	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	84	1580707	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	91	875018	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	1806247	40.0	39.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	2257190	40.0	38.1	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	7359833	40.0	38.4	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	97	2700470	40.0	39.4	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	2392918	40.0	40.0	
10 Chloromethane	50	1.698	1.686	0.012	99	2319242	40.0	38.0	
11 Vinyl chloride	62	1.793	1.781	0.012	98	2025909	40.0	36.0	
12 Butadiene	54	1.804	1.793	0.011	98	2665435	40.0	36.1	
13 Bromomethane	94	2.065	2.054	0.011	90	1506749	40.0	33.5	
14 Chloroethane	64	2.160	2.137	0.023	100	1406432	40.0	35.4	
15 Dichlorofluoromethane	67	2.314	2.303	0.011	97	3477509	40.0	35.0	
16 Trichlorofluoromethane	101	2.362	2.362	0.000	98	3407867	40.0	40.3	
17 Ethyl ether	59	2.575	2.563	0.012	89	1653914	40.0	36.8	
18 Acrolein	56	2.694	2.694	0.000	100	1148055	200.0	185.9	
19 1,1-Dichloroethene	96	2.812	2.777	0.035	98	2182381	40.0	37.3	
20 1,1,2-Trichloro-1,2,2-trif	151	2.812	2.789	0.023	79	1880984	40.0	39.1	
22 Acetone	58	2.824	2.812	0.012	99	332724	80.0	76.8	
23 Iodomethane	142	2.955	2.931	0.024	98	3255913	40.0	35.7	
24 Carbon disulfide	76	3.002	2.990	0.012	100	5174431	40.0	34.3	
25 3-Chloro-1-propene	76	3.085	3.073	0.012	88	1418141	40.0	42.9	
27 Methyl acetate	43	3.097	3.085	0.012	98	3067156	80.0	76.8	
28 Methylene Chloride	84	3.192	3.180	0.012	92	2032773	40.0	39.6	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	1508945	400.0	381.9	
32 Acrylonitrile	53	3.393	3.394	-0.001	99	7643188	400.0	407.9	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	6078083	40.0	39.8	
30 trans-1,2-Dichloroethene	96	3.417	3.405	0.012	95	2072831	40.0	38.1	
33 Hexane	86	3.631	3.619	0.012	93	455555	40.0	39.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	3448011	40.0	39.2	
36 Vinyl acetate	43	3.797	3.785	0.012	97	4206187	40.0	41.5	
39 cis-1,2-Dichloroethene	96	4.247	4.235	0.012	81	2264494	40.0	37.8	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	60	445323	40.0	36.6	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	99	511818	80.0	79.0	
45 Chlorobromomethane	128	4.449	4.449	0.000	89	1150919	40.0	38.6	
46 Tetrahydrofuran	42	4.484	4.485	-0.001	87	1272086	80.0	78.9	
47 Chloroform	83	4.508	4.496	0.012	93	3460990	40.0	38.6	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	98	2533663	40.0	36.7	
49 Cyclohexane	56	4.722	4.710	0.012	90	3105972	40.0	39.9	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	95	2816568	40.0	38.6	
50 Carbon tetrachloride	117	4.805	4.805	0.000	97	2706723	40.0	40.4	
52 Isobutyl alcohol	41	4.864	4.864	0.000	95	1496664	1000.0	1000.0	
53 Benzene	78	4.982	4.971	0.011	96	8390558	40.0	38.6	
54 1,2-Dichloroethane	62	4.994	4.983	0.011	98	2877185	40.0	38.7	
56 n-Heptane	100	5.172	5.160	0.012	93	415529	40.0	40.1	
58 Trichloroethene	130	5.516	5.504	0.012	96	2403531	40.0	38.1	
60 Methylcyclohexane	83	5.682	5.670	0.012	88	2723193	40.0	39.7	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	95	1981074	40.0	39.3	
64 1,4-Dioxane	88	5.813	5.813	0.000	59	326819	800.0	772.3	
63 Dibromomethane	93	5.813	5.813	0.000	88	1256838	40.0	37.6	
65 Dichlorobromomethane	83	5.931	5.931	0.000	99	2704273	40.0	40.7	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	2796269	80.0	82.2	
68 cis-1,3-Dichloropropene	75	6.322	6.323	-0.001	95	3274371	40.0	42.6	
69 4-Methyl-2-pentanone (MIBK	43	6.453	6.441	0.012	97	4186633	80.0	80.2	
70 Toluene	91	6.619	6.619	0.000	98	9034071	40.0	38.7	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	94	3169409	40.0	43.2	
72 Ethyl methacrylate	69	6.868	6.868	0.000	89	2869285	40.0	40.9	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	1840913	40.0	39.1	
74 Tetrachloroethene	164	7.117	7.117	0.000	96	1992562	40.0	38.6	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	93	3294456	40.0	39.7	
76 2-Hexanone	43	7.188	7.188	0.000	97	2937075	80.0	81.4	
79 Chlorodibromomethane	129	7.342	7.342	0.000	90	2200067	40.0	44.7	
80 Ethylene Dibromide	107	7.461	7.461	0.000	98	1979685	40.0	39.2	
82 Chlorobenzene	112	7.900	7.900	0.000	96	6035718	40.0	39.1	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	94	2220799	40.0	40.7	
84 Ethylbenzene	106	7.995	7.995	0.000	98	3208633	40.0	39.5	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	7830315	40.0	40.6	
86 o-Xylene	106	8.481	8.481	0.000	97	3825283	40.0	39.1	
87 Styrene	104	8.493	8.493	0.000	94	6714209	40.0	41.0	
88 Bromoform	173	8.682	8.682	0.000	98	1639155	40.0	41.4	
89 Isopropylbenzene	105	8.825	8.825	0.000	95	9246149	40.0	40.0	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	2441270	40.0	39.4	
92 Bromobenzene	156	9.145	9.133	0.012	90	2849353	40.0	39.4	
94 1,2,3-Trichloropropane	110	9.169	9.169	0.000	85	848462	40.0	39.3	
95 trans-1,4-Dichloro-2-buten	53	9.169	9.169	0.000	80	574750	40.0	64.8	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	2529942	40.0	39.7	
97 2-Chlorotoluene	126	9.323	9.323	0.000	98	2322347	40.0	38.9	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	7300680	40.0	39.4	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	7526400	40.0	39.0	
101 tert-Butylbenzene	119	9.714	9.714	0.000	92	6973779	40.0	42.0	
103 1,2,4-Trimethylbenzene	105	9.761	9.762	-0.001	94	7660047	40.0	39.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 sec-Butylbenzene	105	9.927	9.928	-0.001	93	7876504	40.0	38.7	
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	98	4738373	40.0	38.0	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	97	7046098	40.0	38.7	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	97	4936571	40.0	38.2	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	5435677	40.0	37.7	
112 1,2-Dichlorobenzene	146	10.509	10.509	0.000	99	4571601	40.0	37.7	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	93	585195	40.0	41.5	
115 1,2,4-Trichlorobenzene	180	12.109	12.110	-0.001	94	2553990	40.0	33.2	
116 Hexachlorobutadiene	225	12.275	12.276	-0.001	93	1091039	40.0	39.8	
117 Naphthalene	128	12.358	12.359	-0.001	96	6820199	40.0	35.3	
118 1,2,3-Trichlorobenzene	180	12.608	12.608	0.000	95	2286670	40.0	33.1	
S 127 1,2-Dichloroethene, Total	96				0			75.8	
S 128 1,3-Dichloropropene, Total	75				0			85.8	
S 129 Xylenes, Total	106				0		80.0	79.7	
S 130 Trihalomethanes, Total	1				0		160.0	165.3	
S 157 Total BTEX	1		0.000				200.0	ND	

Reagents:

vm50ss_stk_00079	Amount Added:	32.00	Units: uL
VM50IS_00072	Amount Added:	1.00	Units: uL
VMRPRIMW_00318	Amount Added:	32.00	Units: uL
VMAROLISTDW_00281	Amount Added:	32.00	Units: uL
VMRGAS_00278	Amount Added:	32.00	Units: uL

Report Date: 22-Jan-2019 09:12:46 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8410.D

Injection Date: 21-Jan-2019 11:37:30 Instrument ID: A3UX15 Operator ID:

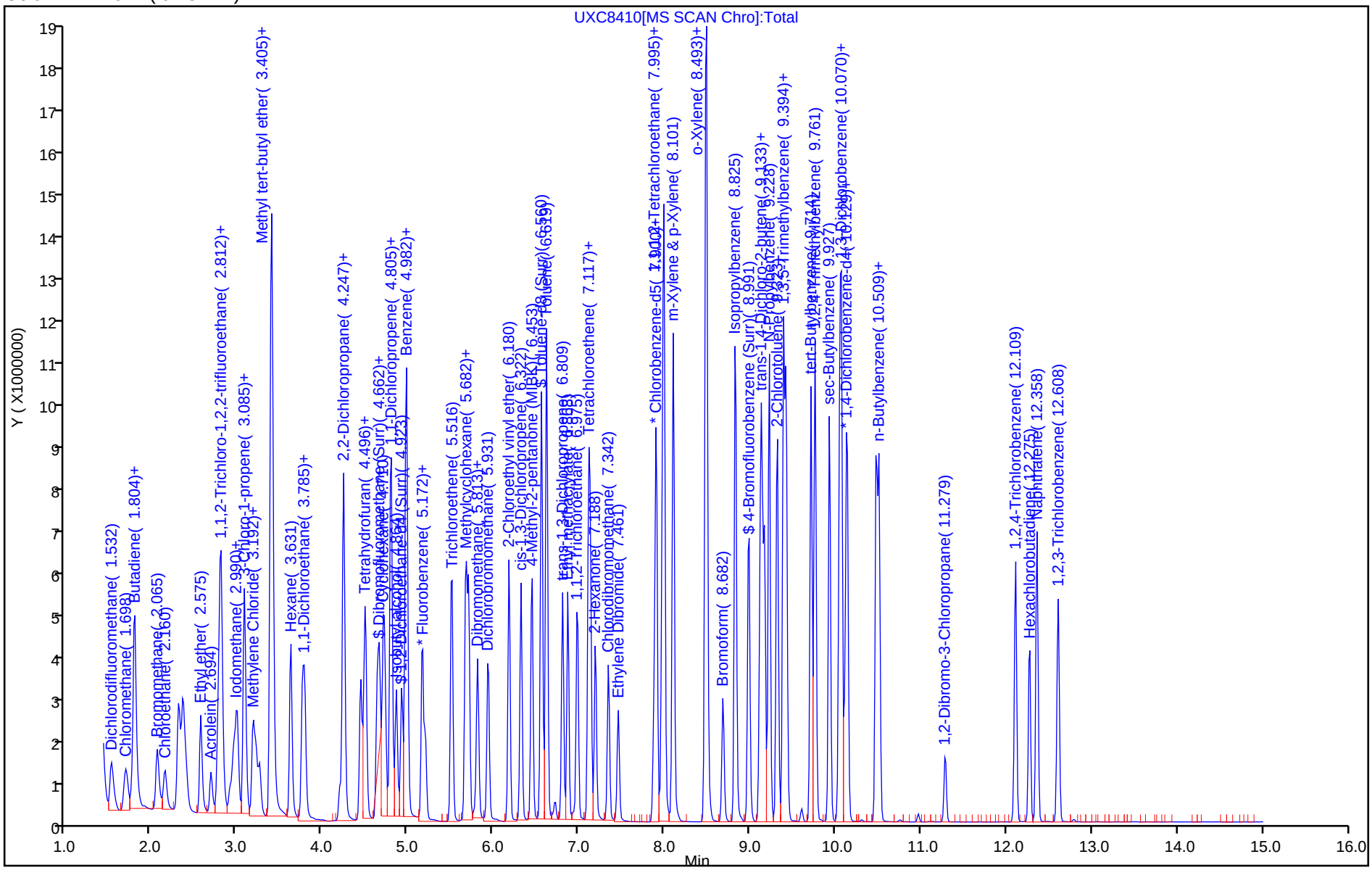
Lims ID: STD8260 L6 Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 1

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8411.D
Lims ID: STD8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Jan-2019 11:59:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-003
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:09:37 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: evansle Date: 21-Jan-2019 12:41:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1920375	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	84	1534484	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	90	858675	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	947952	20.0	20.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	1190875	20.0	20.4	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	3883966	20.0	20.9	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	96	1374232	20.0	20.6	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	1222220	20.0	20.7	
10 Chloromethane	50	1.698	1.686	0.012	99	1207742	20.0	20.1	
11 Vinyl chloride	62	1.793	1.781	0.012	98	1027051	20.0	18.5	
12 Butadiene	54	1.793	1.793	0.000	98	1378009	20.0	18.9	
13 Bromomethane	94	2.065	2.054	0.011	90	791041	20.0	17.8	
14 Chloroethane	64	2.160	2.137	0.023	100	733356	20.0	18.7	
15 Dichlorofluoromethane	67	2.314	2.303	0.011	98	1834172	20.0	18.7	
16 Trichlorofluoromethane	101	2.362	2.362	0.000	99	1703371	20.0	20.5	
17 Ethyl ether	59	2.575	2.563	0.012	90	869536	20.0	19.6	
18 Acrolein	56	2.694	2.694	0.000	99	603583	100.0	99.2	
19 1,1-Dichloroethene	96	2.801	2.777	0.024	98	1125076	20.0	19.5	
20 1,1,2-Trichloro-1,2,2-trif	151	2.801	2.789	0.012	78	967763	20.0	20.4	
22 Acetone	58	2.824	2.812	0.012	100	190030	40.0	43.5	
23 Iodomethane	142	2.955	2.931	0.024	98	1760595	20.0	19.6	
24 Carbon disulfide	76	3.002	2.990	0.012	100	2744114	20.0	18.5	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	88	716236	20.0	22.0	
27 Methyl acetate	43	3.085	3.085	0.000	98	1550490	40.0	39.4	
28 Methylene Chloride	84	3.180	3.180	0.000	92	1097865	20.0	20.6	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	832907	200.0	213.8	
32 Acrylonitrile	53	3.394	3.394	0.000	98	3768272	200.0	204.0	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	3075308	20.0	20.4	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	95	1069131	20.0	19.9	
33 Hexane	86	3.631	3.619	0.012	94	230317	20.0	20.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	1773410	20.0	20.4	
36 Vinyl acetate	43	3.785	3.785	0.000	97	2098831	20.0	21.0	
39 cis-1,2-Dichloroethene	96	4.247	4.235	0.012	81	1189038	20.0	20.1	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	65	241048	20.0	20.1	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	99	256717	40.0	40.2	
45 Chlorobromomethane	128	4.449	4.449	0.000	87	595090	20.0	20.2	
46 Tetrahydrofuran	42	4.485	4.485	0.000	87	634219	40.0	39.9	
47 Chloroform	83	4.496	4.496	0.000	93	1793716	20.0	20.3	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	98	1356966	20.0	19.9	
49 Cyclohexane	56	4.710	4.710	0.000	90	1592895	20.0	20.8	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	94	1474449	20.0	20.5	
50 Carbon tetrachloride	117	4.805	4.805	0.000	96	1385341	20.0	21.0	
52 Isobutyl alcohol	41	4.864	4.864	0.000	94	821992	500.0	557.2	
53 Benzene	78	4.971	4.971	0.000	95	4352726	20.0	20.3	
54 1,2-Dichloroethane	62	4.983	4.983	0.000	97	1492475	20.0	20.3	
56 n-Heptane	100	5.160	5.160	0.000	92	218160	20.0	21.3	
58 Trichloroethene	130	5.504	5.504	0.000	96	1274454	20.0	20.5	
60 Methylcyclohexane	83	5.670	5.670	0.000	90	1428283	20.0	21.1	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	95	1020861	20.0	20.5	
64 1,4-Dioxane	88	5.813	5.813	0.000	37	183906	400.0	443.3	
63 Dibromomethane	93	5.813	5.813	0.000	88	664429	20.0	20.2	
65 Dichlorobromomethane	83	5.931	5.931	0.000	99	1409597	20.0	21.5	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	1383920	40.0	41.3	
68 cis-1,3-Dichloropropene	75	6.323	6.323	0.000	94	1652896	20.0	21.8	
69 4-Methyl-2-pentanone (MIBK	43	6.453	6.441	0.012	97	2114735	40.0	41.1	
70 Toluene	91	6.619	6.619	0.000	98	4691174	20.0	20.7	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	94	1578892	20.0	22.1	
72 Ethyl methacrylate	69	6.868	6.868	0.000	90	1421429	20.0	20.9	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	940456	20.0	20.6	
74 Tetrachloroethene	164	7.117	7.117	0.000	96	1049416	20.0	20.9	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	93	1663194	20.0	20.7	
76 2-Hexanone	43	7.188	7.188	0.000	96	1487023	40.0	42.4	
79 Chlorodibromomethane	129	7.342	7.342	0.000	90	1084488	20.0	22.7	
80 Ethylene Dibromide	107	7.461	7.461	0.000	99	999728	20.0	20.4	
82 Chlorobenzene	112	7.900	7.900	0.000	95	3072375	20.0	20.5	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	95	1113186	20.0	21.0	
84 Ethylbenzene	106	7.995	7.995	0.000	98	1624425	20.0	20.6	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	3890600	20.0	20.8	
86 o-Xylene	106	8.481	8.481	0.000	96	1968397	20.0	20.7	
87 Styrene	104	8.493	8.493	0.000	93	3394736	20.0	21.4	
88 Bromoform	173	8.682	8.682	0.000	98	770158	20.0	20.3	
89 Isopropylbenzene	105	8.825	8.825	0.000	96	4695119	20.0	20.9	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	1238040	20.0	20.3	
92 Bromobenzene	156	9.145	9.133	0.012	89	1450127	20.0	20.4	
94 1,2,3-Trichloropropane	110	9.169	9.169	0.000	84	423192	20.0	20.0	
95 trans-1,4-Dichloro-2-buten	53	9.169	9.169	0.000	75	276245	20.0	31.7	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	1274023	20.0	20.4	
97 2-Chlorotoluene	126	9.323	9.323	0.000	98	1188057	20.0	20.3	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	3784392	20.0	20.8	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	3844885	20.0	20.3	
101 tert-Butylbenzene	119	9.714	9.714	0.000	92	3285832	20.0	20.2	
103 1,2,4-Trimethylbenzene	105	9.762	9.762	0.000	94	3917785	20.0	20.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 sec-Butylbenzene	105	9.928	9.928	0.000	93	4155710	20.0	20.8	
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	98	2462678	20.0	20.1	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	97	3739399	20.0	20.9	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	97	2527274	20.0	19.9	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	2918965	20.0	20.6	
112 1,2-Dichlorobenzene	146	10.509	10.509	0.000	99	2381785	20.0	20.0	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	93	306515	20.0	22.2	
115 1,2,4-Trichlorobenzene	180	12.110	12.110	0.000	94	1510157	20.0	20.0	
116 Hexachlorobutadiene	225	12.276	12.276	0.000	93	696597	20.0	20.4	
117 Naphthalene	128	12.359	12.359	0.000	96	3879317	20.0	20.5	
118 1,2,3-Trichlorobenzene	180	12.608	12.608	0.000	96	1364016	20.0	20.1	
S 127 1,2-Dichloroethene, Total	96				0			40.0	
S 128 1,3-Dichloropropene, Total	75				0			44.0	
S 129 Xylenes, Total	106				0		40.0	41.5	
S 130 Trihalomethanes, Total	1				0		80.0	84.8	
S 157 Total BTEX	1		0.000				100.0	ND	

Reagents:

vm50ss_stk_00079	Amount Added:	16.00	Units: uL
VM50IS_00072	Amount Added:	1.00	Units: uL
VMRPRIMW_00318	Amount Added:	16.00	Units: uL
VMAROLISTDW_00281	Amount Added:	16.00	Units: uL
VMRGAS_00278	Amount Added:	16.00	Units: uL

Report Date: 22-Jan-2019 09:09:38 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8411.D

Injection Date: 21-Jan-2019 11:59:30 Instrument ID: A3UX15 Operator ID:

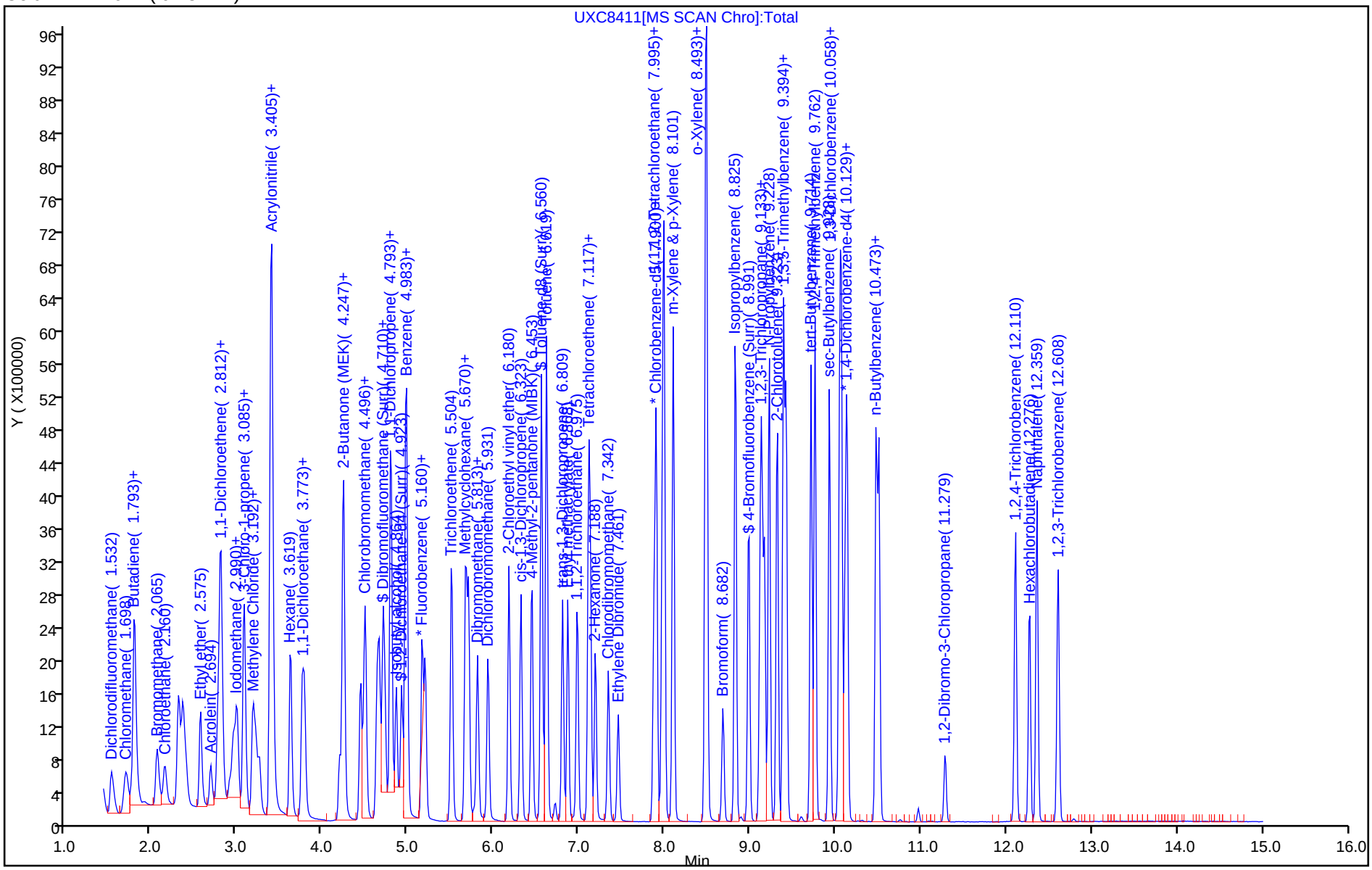
Lims ID: STD8260 L5 Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8412.D
Lims ID: STD8260 L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 21-Jan-2019 12:21:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-004
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:09:43 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: evansle Date: 21-Jan-2019 12:44:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1873821	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	85	1485792	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	831741	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	447792	10.0	10.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	573781	10.0	10.1	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	1816996	10.0	10.1	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	96	649263	10.0	10.1	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	593761	10.0	10.3	
10 Chloromethane	50	1.686	1.686	0.000	99	585358	10.0	9.96	
11 Vinyl chloride	62	1.781	1.781	0.000	98	574312	10.0	10.6	
12 Butadiene	54	1.793	1.793	0.000	98	698736	10.0	9.83	
13 Bromomethane	94	2.054	2.054	0.000	91	423055	10.0	9.78	
14 Chloroethane	64	2.137	2.137	0.000	100	372694	10.0	9.74	
15 Dichlorofluoromethane	67	2.303	2.303	0.000	97	910063	10.0	9.52	
16 Trichlorofluoromethane	101	2.362	2.362	0.000	99	855986	10.0	10.5	
17 Ethyl ether	59	2.563	2.563	0.000	91	419544	10.0	9.69	
18 Acrolein	56	2.694	2.694	0.000	99	290454	50.0	48.9	
19 1,1-Dichloroethene	96	2.777	2.777	0.000	98	516876	10.0	9.18	
20 1,1,2-Trichloro-1,2,2-trif	151	2.789	2.789	0.000	87	462285	10.0	10.0	
22 Acetone	58	2.812	2.812	0.000	99	89168	20.0	19.7	
23 Iodomethane	142	2.931	2.931	0.000	98	909454	10.0	10.4	
24 Carbon disulfide	76	2.990	2.990	0.000	100	1445567	10.0	9.97	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	88	317161	10.0	9.97	
27 Methyl acetate	43	3.085	3.085	0.000	97	723073	20.0	18.8	
28 Methylene Chloride	84	3.180	3.180	0.000	92	580808	10.0	10.0	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	328142	100.0	86.3	
32 Acrylonitrile	53	3.394	3.394	0.000	98	1699336	100.0	94.3	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	97	500088	10.0	9.55	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	1439491	10.0	9.81	
33 Hexane	86	3.619	3.619	0.000	95	104918	10.0	9.55	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	832192	10.0	9.83	
36 Vinyl acetate	43	3.785	3.785	0.000	97	992089	10.0	10.2	
39 cis-1,2-Dichloroethene	96	4.235	4.235	0.000	81	565374	10.0	9.80	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	98	120010	20.0	19.3	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	70	120845	10.0	10.3	
45 Chlorobromomethane	128	4.449	4.449	0.000	88	275468	10.0	9.60	
46 Tetrahydrofuran	42	4.485	4.485	0.000	87	279158	20.0	18.0	
47 Chloroform	83	4.496	4.496	0.000	93	847597	10.0	9.82	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	98	689229	10.0	10.4	
49 Cyclohexane	56	4.710	4.710	0.000	91	742256	10.0	9.92	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	94	688186	10.0	9.80	
50 Carbon tetrachloride	117	4.805	4.805	0.000	96	648774	10.0	10.1	
52 Isobutyl alcohol	41	4.864	4.864	0.000	95	322275	250.0	223.9	
53 Benzene	78	4.971	4.971	0.000	96	2024145	10.0	9.68	
54 1,2-Dichloroethane	62	4.983	4.983	0.000	98	707702	10.0	9.89	
56 n-Heptane	100	5.160	5.160	0.000	93	101813	10.0	10.2	
58 Trichloroethene	130	5.504	5.504	0.000	96	593061	10.0	9.77	
60 Methylcyclohexane	83	5.670	5.670	0.000	90	654672	10.0	9.91	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	94	483376	10.0	9.96	
63 Dibromomethane	93	5.813	5.813	0.000	89	317664	10.0	9.87	
64 1,4-Dioxane	88	5.813	5.813	0.000	33	71764	200.0	180.7	
65 Dichlorobromomethane	83	5.931	5.931	0.000	99	637533	10.0	9.98	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	640886	20.0	19.6	
68 cis-1,3-Dichloropropene	75	6.323	6.323	0.000	95	746312	10.0	10.1	
69 4-Methyl-2-pentanone (MIBK	43	6.441	6.441	0.000	97	970866	20.0	19.3	
70 Toluene	91	6.619	6.619	0.000	98	2172974	10.0	9.91	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	94	706531	10.0	10.2	
72 Ethyl methacrylate	69	6.868	6.868	0.000	89	647349	10.0	9.81	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	437245	10.0	9.87	
74 Tetrachloroethene	164	7.117	7.117	0.000	96	482895	10.0	9.95	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	93	779324	10.0	10.0	
76 2-Hexanone	43	7.188	7.188	0.000	97	666112	20.0	19.6	
79 Chlorodibromomethane	129	7.342	7.342	0.000	90	469828	10.0	10.1	
80 Ethylene Dibromide	107	7.461	7.461	0.000	98	469490	10.0	9.90	
82 Chlorobenzene	112	7.900	7.900	0.000	95	1441533	10.0	9.92	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	94	522591	10.0	10.2	
84 Ethylbenzene	106	7.995	7.995	0.000	98	758362	10.0	9.92	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	1818169	10.0	10.0	
86 o-Xylene	106	8.481	8.481	0.000	96	918350	10.0	9.99	
87 Styrene	104	8.493	8.493	0.000	93	1550959	10.0	10.1	
88 Bromoform	173	8.682	8.682	0.000	98	306750	10.0	8.74	
89 Isopropylbenzene	105	8.825	8.825	0.000	95	2200366	10.0	10.1	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	577712	10.0	9.80	
92 Bromobenzene	156	9.133	9.133	0.000	89	678570	10.0	9.86	
95 trans-1,4-Dichloro-2-buten	53	9.169	9.169	0.000	75	66363	10.0	7.87	
94 1,2,3-Trichloropropane	110	9.169	9.169	0.000	83	201010	10.0	9.79	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	601438	10.0	9.92	
97 2-Chlorotoluene	126	9.323	9.323	0.000	98	555062	10.0	9.78	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	1766210	10.0	10.0	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	1798133	10.0	9.80	
101 tert-Butylbenzene	119	9.714	9.714	0.000	91	1551899	10.0	9.83	
103 1,2,4-Trimethylbenzene	105	9.762	9.762	0.000	94	1848645	10.0	9.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 sec-Butylbenzene	105	9.928	9.928	0.000	94	1935865	10.0	10.0	
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	99	1168047	10.0	9.86	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	97	1751242	10.0	10.1	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	97	1199185	10.0	9.76	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	1384405	10.0	10.1	
112 1,2-Dichlorobenzene	146	10.509	10.509	0.000	99	1159176	10.0	10.0	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	91	138143	10.0	10.3	
115 1,2,4-Trichlorobenzene	180	12.110	12.110	0.000	93	739836	10.0	10.1	
116 Hexachlorobutadiene	225	12.276	12.276	0.000	93	359850	10.0	9.75	
117 Naphthalene	128	12.359	12.359	0.000	96	1891386	10.0	10.3	
118 1,2,3-Trichlorobenzene	180	12.608	12.608	0.000	95	663704	10.0	10.1	
S 129 Xylenes, Total	106				0		20.0	20.0	
S 157 Total BTEX	1		0.000				50.0	ND	
S 130 Trihalomethanes, Total	1				0		40.0	38.7	

Reagents:

VM50IS_00072	Amount Added:	1.00	Units: uL
vm50ss_stk_00079	Amount Added:	8.00	Units: uL
VMRPRIMW_00318	Amount Added:	8.00	Units: uL
VMAROLISTDW_00281	Amount Added:	8.00	Units: uL
VMRGAS_00278	Amount Added:	8.00	Units: uL

Report Date: 22-Jan-2019 09:09:44 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8412.D

Injection Date: 21-Jan-2019 12:21:30 Instrument ID: A3UX15 Operator ID:

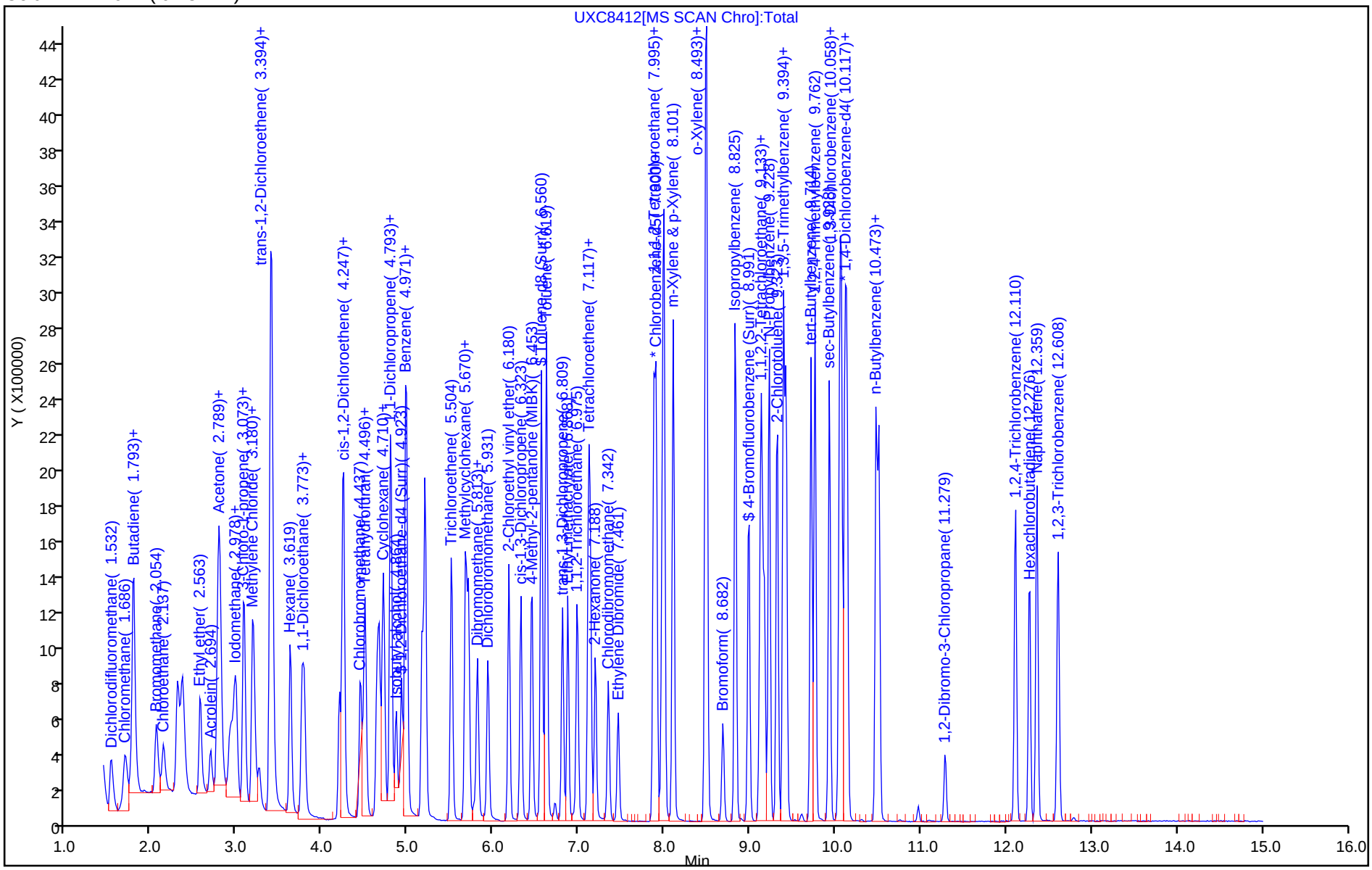
Lims ID: STD8260 L4 Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8413.D
Lims ID: STD8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Jan-2019 12:43:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-005
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:09:48 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: evansle Date: 21-Jan-2019 13:20:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1838760	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	85	1476200	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	809369	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	95	225163	5.00	5.18	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	288691	5.00	5.16	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	912990	5.00	5.10	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	96	328418	5.00	5.13	
9 Dichlorodifluoromethane	85	1.520	1.532	-0.012	99	296202	5.00	5.24	
10 Chloromethane	50	1.686	1.686	0.000	99	276149	5.00	4.79	
11 Vinyl chloride	62	1.781	1.781	0.000	67	261470	5.00	4.93	
12 Butadiene	54	1.793	1.793	0.000	95	361713	5.00	5.18	
13 Bromomethane	94	2.053	2.054	-0.001	91	198900	5.00	4.69	
14 Chloroethane	64	2.136	2.137	-0.001	100	182320	5.00	4.86	
15 Dichlorofluoromethane	67	2.302	2.303	-0.001	98	471934	5.00	5.03	
16 Trichlorofluoromethane	101	2.362	2.362	0.000	98	408598	5.00	5.12	
17 Ethyl ether	59	2.563	2.563	0.000	90	212667	5.00	5.01	
18 Acrolein	56	2.694	2.694	0.000	99	144856	25.0	24.9	
19 1,1-Dichloroethene	96	2.789	2.777	0.012	98	277159	5.00	5.02	
20 1,1,2-Trichloro-1,2,2-trif	151	2.789	2.789	0.000	87	228498	5.00	5.04	
22 Acetone	58	2.812	2.812	0.000	99	50751	10.0	10.4	
23 Iodomethane	142	2.943	2.931	0.012	98	446819	5.00	5.20	
24 Carbon disulfide	76	2.990	2.990	0.000	100	742305	5.00	5.21	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	88	154763	5.00	4.96	
27 Methyl acetate	43	3.085	3.085	0.000	98	380996	10.0	10.1	
28 Methylene Chloride	84	3.180	3.180	0.000	93	338417	5.00	4.93	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	184510	50.0	49.5	
32 Acrylonitrile	53	3.393	3.394	-0.001	98	868795	50.0	49.1	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	714788	5.00	4.96	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	98	251570	5.00	4.89	
33 Hexane	86	3.631	3.619	0.012	94	51427	5.00	4.77	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	409730	5.00	4.93	
36 Vinyl acetate	43	3.785	3.785	0.000	97	476538	5.00	4.99	
39 cis-1,2-Dichloroethene	96	4.235	4.235	0.000	80	278759	5.00	4.92	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	68	58586	5.00	5.11	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	99	59681	10.0	9.76	
45 Chlorobromomethane	128	4.449	4.449	0.000	89	140018	5.00	4.97	
46 Tetrahydrofuran	42	4.484	4.485	-0.001	88	150812	10.0	9.91	
47 Chloroform	83	4.496	4.496	0.000	93	422474	5.00	4.99	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	97	334136	5.00	5.12	
49 Cyclohexane	56	4.710	4.710	0.000	90	368473	5.00	5.02	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	93	343617	5.00	4.99	
50 Carbon tetrachloride	117	4.805	4.805	0.000	96	318843	5.00	5.04	
52 Isobutyl alcohol	41	4.864	4.864	0.000	94	177736	125.0	125.8	
53 Benzene	78	4.971	4.971	0.000	96	1016161	5.00	4.95	
54 1,2-Dichloroethane	62	4.982	4.983	-0.001	97	350758	5.00	4.99	
56 n-Heptane	100	5.160	5.160	0.000	93	48491	5.00	4.96	
58 Trichloroethene	130	5.504	5.504	0.000	96	296310	5.00	4.97	
60 Methylcyclohexane	83	5.670	5.670	0.000	89	326169	5.00	5.03	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	94	239856	5.00	5.04	
64 1,4-Dioxane	88	5.813	5.813	0.000	33	39232	100.0	103.2	M
63 Dibromomethane	93	5.813	5.813	0.000	89	157375	5.00	4.99	
65 Dichlorobromomethane	83	5.931	5.931	0.000	99	306036	5.00	4.88	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	319533	10.0	9.96	
68 cis-1,3-Dichloropropene	75	6.322	6.323	-0.001	94	356486	5.00	4.92	
69 4-Methyl-2-pentanone (MIBK	43	6.441	6.441	0.000	97	495239	10.0	10.1	
70 Toluene	91	6.619	6.619	0.000	98	1080197	5.00	4.96	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	94	333930	5.00	4.87	
72 Ethyl methacrylate	69	6.868	6.868	0.000	89	316654	5.00	4.83	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	218933	5.00	4.97	
74 Tetrachloroethene	164	7.117	7.117	0.000	96	241473	5.00	5.01	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	92	378264	5.00	4.89	
76 2-Hexanone	43	7.188	7.188	0.000	97	337296	10.0	10.0	
79 Chlorodibromomethane	129	7.342	7.342	0.000	89	222991	5.00	4.85	
80 Ethylene Dibromide	107	7.461	7.461	0.000	97	237763	5.00	5.05	
82 Chlorobenzene	112	7.900	7.900	0.000	95	714138	5.00	4.95	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	93	253355	5.00	4.97	
84 Ethylbenzene	106	7.995	7.995	0.000	98	374569	5.00	4.93	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	872988	5.00	4.84	
86 o-Xylene	106	8.481	8.481	0.000	96	449671	5.00	4.92	
87 Styrene	104	8.493	8.493	0.000	94	754758	5.00	4.94	
88 Bromoform	173	8.682	8.682	0.000	98	138461	5.00	4.32	
89 Isopropylbenzene	105	8.825	8.825	0.000	96	1070139	5.00	4.95	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	283791	5.00	4.95	
92 Bromobenzene	156	9.133	9.133	0.000	89	330598	5.00	4.94	
94 1,2,3-Trichloropropane	110	9.169	9.169	0.000	83	99350	5.00	4.97	
95 trans-1,4-Dichloro-2-buten	53	9.169	9.169	0.000	62	23872	5.00	2.91	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	290505	5.00	4.93	
97 2-Chlorotoluene	126	9.323	9.323	0.000	97	275264	5.00	4.99	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	840604	5.00	4.90	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	881245	5.00	4.94	
101 tert-Butylbenzene	119	9.714	9.714	0.000	92	749194	5.00	4.88	
103 1,2,4-Trimethylbenzene	105	9.761	9.762	-0.001	94	876431	5.00	4.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 sec-Butylbenzene	105	9.927	9.928	-0.001	94	937713	5.00	4.98	
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	98	572540	5.00	4.96	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	97	830781	5.00	4.93	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	97	582208	5.00	4.87	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	659506	5.00	4.94	
112 1,2-Dichlorobenzene	146	10.509	10.509	0.000	99	556492	5.00	4.96	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	90	65389	5.00	5.01	
115 1,2,4-Trichlorobenzene	180	12.109	12.110	-0.001	94	356465	5.00	5.01	
116 Hexachlorobutadiene	225	12.275	12.276	-0.001	94	175613	5.00	4.68	
117 Naphthalene	128	12.358	12.359	-0.001	96	926474	5.00	5.18	
118 1,2,3-Trichlorobenzene	180	12.607	12.608	-0.001	96	324635	5.00	5.08	
S 127 1,2-Dichloroethene, Total	96				0			9.82	
S 128 1,3-Dichloropropene, Total	75				0			9.78	
S 129 Xylenes, Total	106				0		10.0	9.77	
S 130 Trihalomethanes, Total	1				0		20.0	19.0	
S 157 Total BTEX	1		0.000				25.0	ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VM50IS_00072	Amount Added:	1.00	Units: uL
vm50ss_stk_00079	Amount Added:	4.00	Units: uL
VMRPRIMW_00318	Amount Added:	4.00	Units: uL
VMAROLISTDW_00281	Amount Added:	4.00	Units: uL
VMRGAS_00278	Amount Added:	4.00	Units: uL

Report Date: 22-Jan-2019 09:09:49 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8413.D

Injection Date: 21-Jan-2019 12:43:30 Instrument ID: A3UX15 Operator ID:

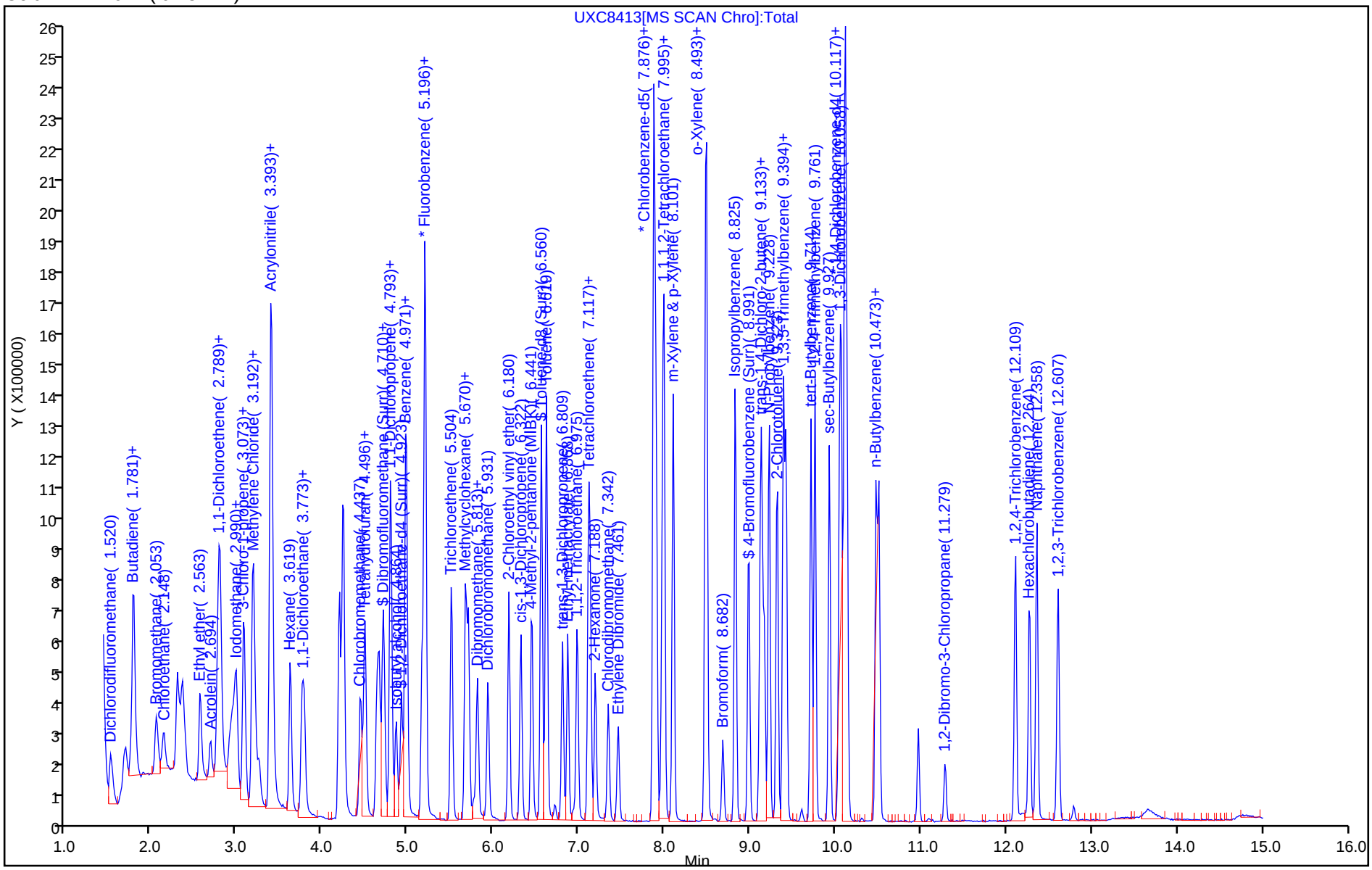
Lims ID: STD8260 L3 Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Canton

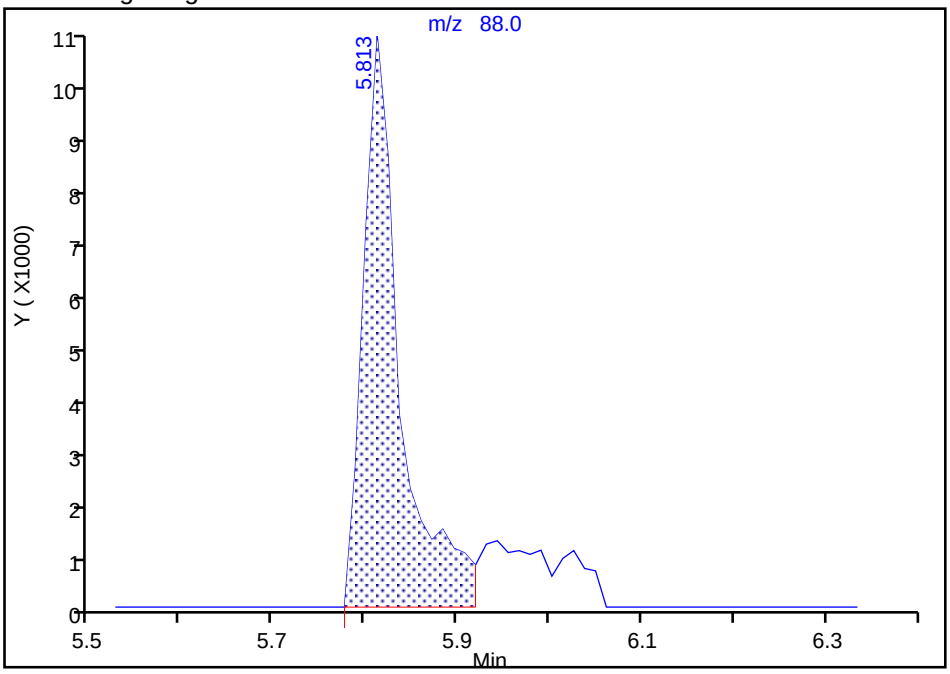
Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8413.D
Injection Date: 21-Jan-2019 12:43:30 Instrument ID: A3UX15
Lims ID: STD8260 L3
Client ID:
Operator ID: ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

64 1,4-Dioxane, CAS: 123-91-1

Signal: 1

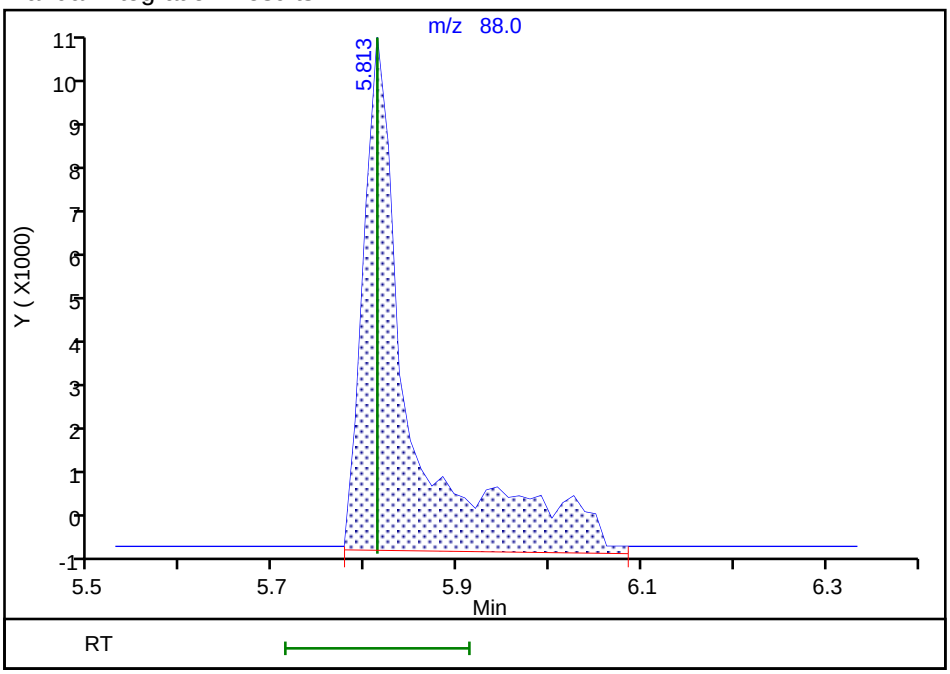
Processing Integration Results

RT: 5.81
Area: 29665
Amount: 80.472140
Amount Units: ug/l



Manual Integration Results

RT: 5.81
Area: 39232
Amount: 103.2242
Amount Units: ug/l



Reviewer: evansle, 21-Jan-2019 13:18:53
Audit Action: Manually Integrated Audit Reason: Baseline

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8414.D
Lims ID: STD8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Jan-2019 13:05:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-006
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:09:53 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: evansle Date: 21-Jan-2019 13:21:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1827101	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	84	1454104	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	793660	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	94	80448	2.00	1.86	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	106482	2.00	1.92	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	333303	2.00	1.89	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	95	120695	2.00	1.91	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	112693	2.00	2.01	
10 Chloromethane	50	1.698	1.686	0.012	99	119628	2.00	2.09	
11 Vinyl chloride	62	1.793	1.781	0.012	62	104647	2.00	1.99	
12 Butadiene	54	1.793	1.793	0.000	96	148568	2.00	2.14	
13 Bromomethane	94	2.065	2.054	0.011	91	100403	2.00	2.38	
14 Chloroethane	64	2.148	2.137	0.011	100	82718	2.00	2.22	
15 Dichlorofluoromethane	67	2.314	2.303	0.011	98	201291	2.00	2.16	
16 Trichlorofluoromethane	101	2.362	2.362	0.000	97	157640	2.00	1.99	
17 Ethyl ether	59	2.575	2.563	0.012	90	87432	2.00	2.07	
18 Acrolein	56	2.694	2.694	0.000	99	55282	10.0	9.55	
19 1,1-Dichloroethene	96	2.801	2.777	0.024	98	120279	2.00	2.19	
20 1,1,2-Trichloro-1,2,2-trif	151	2.801	2.789	0.012	77	91700	2.00	2.03	
22 Acetone	58	2.812	2.812	0.000	98	23252	4.00	3.50	
23 Iodomethane	142	2.955	2.931	0.024	98	156089	2.00	1.83	
24 Carbon disulfide	76	3.002	2.990	0.012	100	283969	2.00	2.01	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	86	58477	2.00	1.88	
27 Methyl acetate	43	3.085	3.085	0.000	97	150240	4.00	4.01	
28 Methylene Chloride	84	3.180	3.180	0.000	96	198393	2.00	1.89	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	82343	20.0	22.2	
32 Acrylonitrile	53	3.393	3.394	-0.001	100	352291	20.0	20.0	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	96	103155	2.00	2.02	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	285516	2.00	1.99	
33 Hexane	86	3.631	3.619	0.012	93	22194	2.00	2.07	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	3.761	3.761	0.000	96	166930	2.00	2.02	
36 Vinyl acetate	43	3.785	3.785	0.000	97	177639	2.00	1.87	
39 cis-1,2-Dichloroethene	96	4.247	4.235	0.012	81	116480	2.00	2.07	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	72	24387	4.00	4.01	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	60	21907	2.00	1.92	
45 Chlorobromomethane	128	4.449	4.449	0.000	90	56716	2.00	2.03	
46 Tetrahydrofuran	42	4.484	4.485	-0.001	86	62314	4.00	4.12	
47 Chloroform	83	4.496	4.496	0.000	94	169874	2.00	2.02	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	97	130349	2.00	2.01	
49 Cyclohexane	56	4.710	4.710	0.000	90	144320	2.00	1.98	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	94	140972	2.00	2.06	
50 Carbon tetrachloride	117	4.805	4.805	0.000	97	124489	2.00	1.98	
52 Isobutyl alcohol	41	4.864	4.864	0.000	96	73133	50.0	52.1	
53 Benzene	78	4.971	4.971	0.000	95	412777	2.00	2.02	
54 1,2-Dichloroethane	62	4.983	4.983	0.000	98	142414	2.00	2.04	
56 n-Heptane	100	5.160	5.160	0.000	92	19095	2.00	1.96	
58 Trichloroethene	130	5.504	5.504	0.000	96	120531	2.00	2.04	
60 Methylcyclohexane	83	5.670	5.670	0.000	90	127322	2.00	1.98	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	94	97800	2.00	2.07	
63 Dibromomethane	93	5.813	5.813	0.000	89	65366	2.00	2.08	
64 1,4-Dioxane	88	5.813	5.813	0.000	37	14227	40.0	41.3	
65 Dichlorobromomethane	83	5.931	5.931	0.000	98	121869	2.00	1.96	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	123378	4.00	3.87	
68 cis-1,3-Dichloropropene	75	6.323	6.323	0.000	94	138202	2.00	1.92	
69 4-Methyl-2-pentanone (MIBK	43	6.453	6.441	0.012	96	187250	4.00	3.83	
70 Toluene	91	6.619	6.619	0.000	98	428381	2.00	2.00	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	95	125256	2.00	1.85	
72 Ethyl methacrylate	69	6.868	6.868	0.000	89	129112	2.00	2.00	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	87521	2.00	2.02	
74 Tetrachloroethene	164	7.117	7.117	0.000	96	95990	2.00	2.02	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	92	153833	2.00	2.02	
76 2-Hexanone	43	7.188	7.188	0.000	97	135481	4.00	4.08	
79 Chlorodibromomethane	129	7.342	7.342	0.000	90	82891	2.00	1.83	
80 Ethylene Dibromide	107	7.461	7.461	0.000	98	91132	2.00	1.96	
82 Chlorobenzene	112	7.900	7.900	0.000	97	286159	2.00	2.01	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	93	95060	2.00	1.89	
84 Ethylbenzene	106	7.995	7.995	0.000	98	146696	2.00	1.96	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	351787	2.00	1.98	
86 o-Xylene	106	8.481	8.481	0.000	96	176986	2.00	1.97	
87 Styrene	104	8.493	8.493	0.000	91	289260	2.00	1.92	
88 Bromoform	173	8.682	8.682	0.000	97	51580	2.00	2.03	
89 Isopropylbenzene	105	8.825	8.825	0.000	95	416807	2.00	1.96	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	112833	2.00	2.01	
92 Bromobenzene	156	9.133	9.133	0.000	89	131876	2.00	2.01	
95 trans-1,4-Dichloro-2-buten	53	9.169	9.169	0.000	67	16039	2.00	1.99	
94 1,2,3-Trichloropropane	110	9.169	9.169	0.000	86	40526	2.00	2.07	
96 N-Propylbenzene	120	9.228	9.228	0.000	98	117423	2.00	2.03	
97 2-Chlorotoluene	126	9.323	9.323	0.000	98	107735	2.00	1.99	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	332591	2.00	1.98	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	356628	2.00	2.04	
101 tert-Butylbenzene	119	9.714	9.714	0.000	92	300630	2.00	2.00	
103 1,2,4-Trimethylbenzene	105	9.762	9.762	0.000	94	359918	2.00	2.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 sec-Butylbenzene	105	9.928	9.928	0.000	94	373619	2.00	2.02	
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	98	229119	2.00	2.03	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	96	334169	2.00	2.02	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	97	241629	2.00	2.06	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	263153	2.00	2.01	
112 1,2-Dichlorobenzene	146	10.509	10.509	0.000	98	224899	2.00	2.04	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	88	24334	2.00	1.90	
115 1,2,4-Trichlorobenzene	180	12.109	12.110	-0.001	93	145803	2.00	2.09	
116 Hexachlorobutadiene	225	12.276	12.276	0.000	94	78276	2.00	2.11	
117 Naphthalene	128	12.359	12.359	0.000	96	348942	2.00	1.99	
118 1,2,3-Trichlorobenzene	180	12.608	12.608	0.000	95	131338	2.00	2.09	
S 127 1,2-Dichloroethene, Total	96				0			4.09	
S 128 1,3-Dichloropropene, Total	75				0			3.77	
S 129 Xylenes, Total	106				0		4.00	3.95	
S 157 Total BTEX	1		0.000				10.0	ND	
S 130 Trihalomethanes, Total	1				0		8.00	7.83	

Reagents:

VM50IS_00072	Amount Added:	1.00	Units: uL	
vm50ss_stk_00079	Amount Added:	1.60	Units: uL	
VMRPRIMW_00318	Amount Added:	1.60	Units: uL	
VMAROLISTDW_00281	Amount Added:	1.60	Units: uL	
VMRGAS_00278	Amount Added:	1.60	Units: uL	

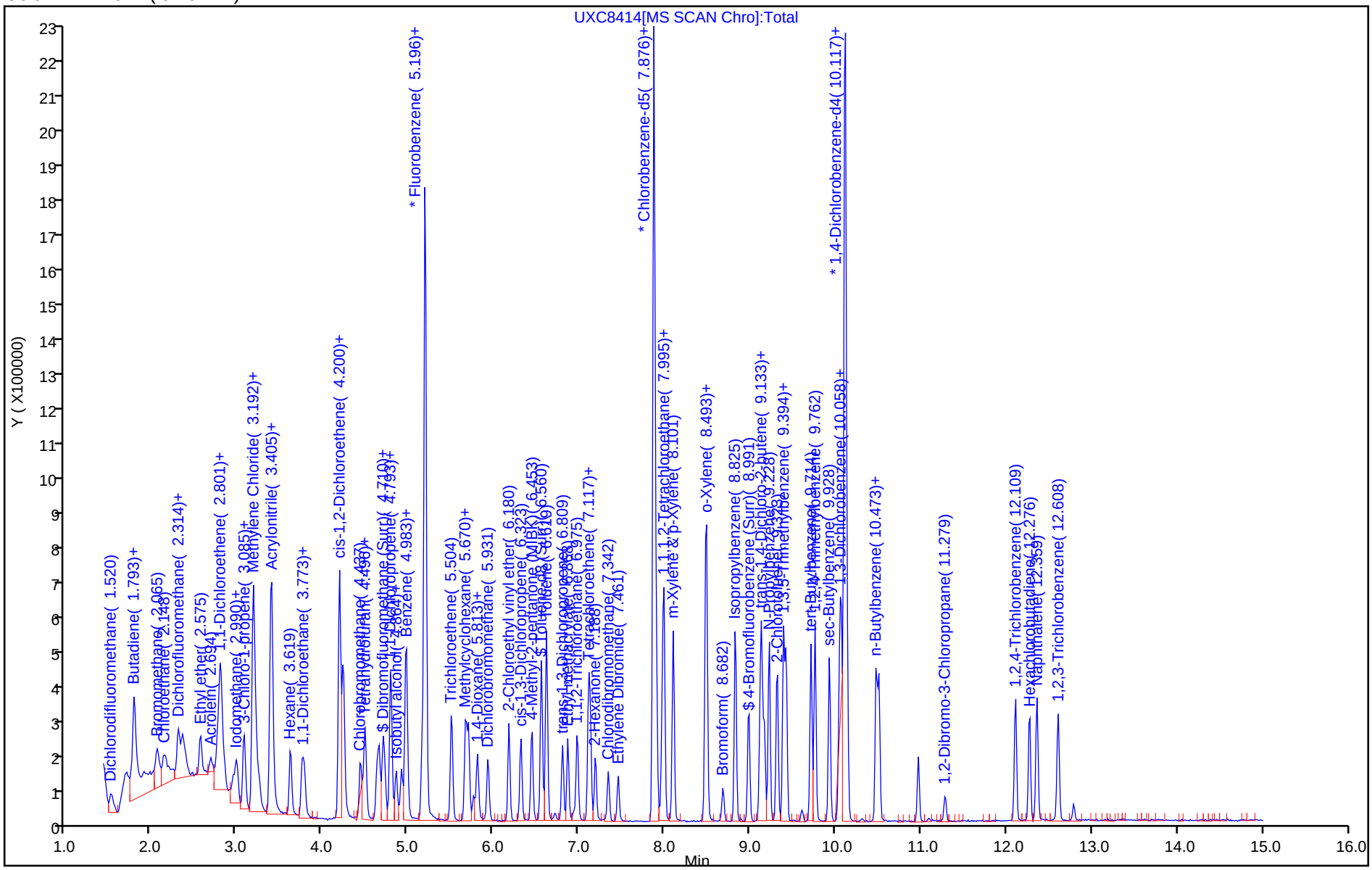
Report Date: 22-Jan-2019 09:09:54 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8414.D

Injection Date:	21-Jan-2019 13:05:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	STD8260 L2			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8415.D
Lims ID: STD8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Jan-2019 13:26:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0083824-007
Misc. Info.: C90121A-IC,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 22-Jan-2019 09:09:57 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: evansle Date: 21-Jan-2019 13:51:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1764972	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	84	1396761	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	94	755367	10.0	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	94	41840	1.00	1.00	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	100	55383	1.00	1.03	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	174193	1.00	1.03	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.979	0.000	95	60446	1.00	1.00	
9 Dichlorodifluoromethane	85	1.532	1.532	0.000	99	47729	1.00	0.8803	
10 Chloromethane	50	1.698	1.686	0.012	96	58046	1.00	1.05	
11 Vinyl chloride	62	1.793	1.781	0.012	72	57558	1.00	1.13	
12 Butadiene	54	1.793	1.793	0.000	95	71088	1.00	1.06	
13 Bromomethane	94	2.054	2.054	0.000	88	47411	1.00	1.16	
14 Chloroethane	64	2.137	2.137	0.000	99	40558	1.00	1.13	
15 Dichlorofluoromethane	67	2.303	2.303	0.000	97	103682	1.00	1.15	
16 Trichlorofluoromethane	101	2.350	2.362	-0.012	98	68568	1.00	0.8959	
17 Ethyl ether	59	2.575	2.563	0.012	91	44605	1.00	1.09	
18 Acrolein	56	2.694	2.694	0.000	97	32229	5.00	5.76	
19 1,1-Dichloroethene	96	2.777	2.777	0.000	98	57094	1.00	1.08	
20 1,1,2-Trichloro-1,2,2-trif	151	2.789	2.789	0.000	88	42550	1.00	0.9770	
22 Acetone	58	2.813	2.812	0.001	98	17181	2.00	2.11	
23 Iodomethane	142	2.931	2.931	0.000	99	93588	1.00	1.13	
24 Carbon disulfide	76	2.990	2.990	0.000	97	160687	1.00	1.18	
25 3-Chloro-1-propene	76	3.073	3.073	0.000	89	27003	1.00	0.9008	
27 Methyl acetate	43	3.085	3.085	0.000	98	79740	2.00	2.20	
28 Methylene Chloride	84	3.180	3.180	0.000	93	154915	1.00	1.05	
29 2-Methyl-2-propanol	59	3.263	3.263	0.000	99	36240	10.0	10.1	
32 Acrylonitrile	53	3.394	3.394	0.000	97	175156	10.0	10.3	
31 Methyl tert-butyl ether	73	3.405	3.405	0.000	96	139955	1.00	1.01	
30 trans-1,2-Dichloroethene	96	3.405	3.405	0.000	97	54736	1.00	1.11	
33 Hexane	86	3.619	3.619	0.000	94	10725	1.00	1.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	3.761	3.761	0.000	97	81126	1.00	1.02	
36 Vinyl acetate	43	3.785	3.785	0.000	97	88027	1.00	0.9595	
39 cis-1,2-Dichloroethene	96	4.236	4.235	0.001	80	57035	1.00	1.05	
40 2,2-Dichloropropane	97	4.247	4.247	0.000	42	11684	1.00	1.06	
41 2-Butanone (MEK)	72	4.247	4.247	0.000	57	12505	2.00	2.13	
45 Chlorobromomethane	128	4.437	4.449	-0.012	88	28543	1.00	1.06	
46 Tetrahydrofuran	42	4.485	4.485	0.000	86	31985	2.00	2.19	
47 Chloroform	83	4.496	4.496	0.000	93	83929	1.00	1.03	
48 1,1,1-Trichloroethane	97	4.662	4.662	0.000	98	63803	1.00	1.02	
49 Cyclohexane	56	4.710	4.710	0.000	91	68915	1.00	0.9779	
51 1,1-Dichloropropene	75	4.793	4.793	0.000	93	66437	1.00	1.00	
50 Carbon tetrachloride	117	4.805	4.805	0.000	97	56945	1.00	0.9377	
52 Isobutyl alcohol	41	4.864	4.864	0.000	95	31904	25.0	23.5	
53 Benzene	78	4.971	4.971	0.000	96	207184	1.00	1.05	
54 1,2-Dichloroethane	62	4.983	4.983	0.000	97	68031	1.00	1.01	
56 n-Heptane	100	5.161	5.160	0.000	80	8801	1.00	0.9370	a
58 Trichloroethene	130	5.504	5.504	0.000	95	59121	1.00	1.03	
60 Methylcyclohexane	83	5.670	5.670	0.000	88	60130	1.00	0.9667	
61 1,2-Dichloropropane	63	5.706	5.706	0.000	90	43707	1.00	0.9560	
64 1,4-Dioxane	88	5.825	5.813	0.012	33	5185	20.0	19.2	
63 Dibromomethane	93	5.813	5.813	0.000	86	31111	1.00	1.03	
65 Dichlorobromomethane	83	5.931	5.931	0.000	98	57382	1.00	0.9535	
67 2-Chloroethyl vinyl ether	63	6.180	6.180	0.000	93	61442	2.00	1.99	
68 cis-1,3-Dichloropropene	75	6.323	6.323	0.000	93	62099	1.00	0.8920	
69 4-Methyl-2-pentanone (MIBK	43	6.453	6.441	0.012	98	98299	2.00	2.08	
70 Toluene	91	6.619	6.619	0.000	98	209687	1.00	1.02	
71 trans-1,3-Dichloropropene	75	6.809	6.809	0.000	94	57707	1.00	0.8893	
72 Ethyl methacrylate	69	6.868	6.868	0.000	90	61421	1.00	0.9899	
73 1,1,2-Trichloroethane	97	6.975	6.975	0.000	91	41853	1.00	1.00	
74 Tetrachloroethene	164	7.117	7.117	0.000	97	44889	1.00	0.9835	
75 1,3-Dichloropropane	76	7.129	7.129	0.000	92	72217	1.00	0.9861	
76 2-Hexanone	43	7.188	7.188	0.000	96	58616	2.00	1.84	
79 Chlorodibromomethane	129	7.342	7.342	0.000	89	36977	1.00	0.8497	
80 Ethylene Dibromide	107	7.461	7.461	0.000	97	45295	1.00	1.02	
82 Chlorobenzene	112	7.900	7.900	0.000	96	138107	1.00	1.01	
83 1,1,1,2-Tetrachloroethane	131	7.971	7.971	0.000	93	46702	1.00	0.9691	
84 Ethylbenzene	106	7.995	7.995	0.000	98	73699	1.00	1.03	
85 m-Xylene & p-Xylene	91	8.101	8.101	0.000	93	168049	1.00	0.9855	
86 o-Xylene	106	8.481	8.481	0.000	97	88147	1.00	1.02	
87 Styrene	104	8.493	8.493	0.000	93	137740	1.00	0.9520	
88 Bromoform	173	8.682	8.682	0.000	96	19867	1.00	1.20	
89 Isopropylbenzene	105	8.825	8.825	0.000	95	198841	1.00	0.9729	
93 1,1,2,2-Tetrachloroethane	83	9.121	9.121	0.000	97	54865	1.00	1.03	
92 Bromobenzene	156	9.133	9.133	0.000	90	63640	1.00	1.02	
94 1,2,3-Trichloropropane	110	9.169	9.169	0.000	85	18846	1.00	1.01	
95 trans-1,4-Dichloro-2-buten	53	9.169	9.169	0.000	62	3277	1.00	0.4279	
96 N-Propylbenzene	120	9.228	9.228	0.000	99	54874	1.00	1.00	
97 2-Chlorotoluene	126	9.323	9.323	0.000	97	53702	1.00	1.04	
98 1,3,5-Trimethylbenzene	105	9.394	9.394	0.000	94	160683	1.00	1.00	
99 4-Chlorotoluene	91	9.418	9.418	0.000	98	170473	1.00	1.02	
101 tert-Butylbenzene	119	9.714	9.714	0.000	92	141080	1.00	0.9843	
103 1,2,4-Trimethylbenzene	105	9.762	9.762	0.000	94	169136	1.00	1.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 sec-Butylbenzene	105	9.928	9.928	0.000	94	173094	1.00	0.9849	
106 1,3-Dichlorobenzene	146	10.046	10.046	0.000	97	113176	1.00	1.05	
107 4-Isopropyltoluene	119	10.070	10.070	0.000	95	154318	1.00	0.9808	
108 1,4-Dichlorobenzene	146	10.141	10.141	0.000	96	119243	1.00	1.07	
111 n-Butylbenzene	91	10.473	10.473	0.000	97	127428	1.00	1.02	
112 1,2-Dichlorobenzene	146	10.509	10.509	0.000	98	109056	1.00	1.04	
113 1,2-Dibromo-3-Chloropropan	157	11.291	11.291	0.000	84	10572	1.00	0.8688	
115 1,2,4-Trichlorobenzene	180	12.110	12.110	0.000	94	73453	1.00	1.11	
116 Hexachlorobutadiene	225	12.276	12.276	0.000	93	41867	1.00	1.20	
117 Naphthalene	128	12.359	12.359	0.000	96	172653	1.00	1.03	
118 1,2,3-Trichlorobenzene	180	12.608	12.608	0.000	95	65430	1.00	1.10	
S 127 1,2-Dichloroethene, Total	96				0			2.16	
S 128 1,3-Dichloropropene, Total	75				0			1.78	
S 129 Xylenes, Total	106				0		2.00	2.01	
S 130 Trihalomethanes, Total	1				0		4.00	4.03	
S 157 Total BTEX	1		0.000				5.00	ND	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

VM50IS_00072	Amount Added:	1.00	Units: uL
vm50ss_stk_00079	Amount Added:	0.80	Units: uL
VMRPRIMW_00318	Amount Added:	0.80	Units: uL
VMAROLISTDW_00281	Amount Added:	0.80	Units: uL
VMRGAS_00278	Amount Added:	0.80	Units: uL

Report Date: 22-Jan-2019 09:09:59 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8415.D

Injection Date: 21-Jan-2019 13:26:30 Instrument ID: A3UX15 Operator ID:

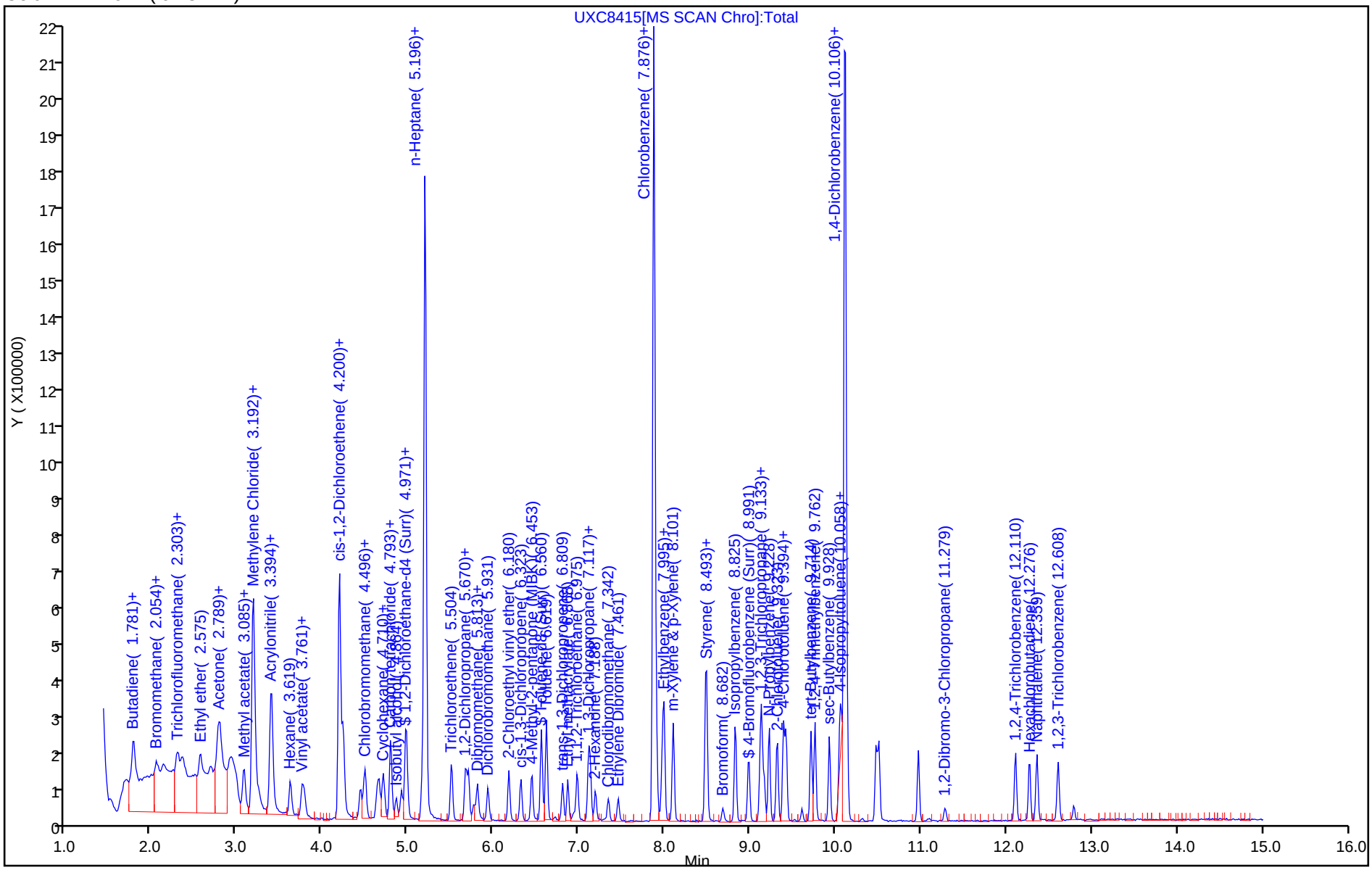
Lims ID: STD8260 L1 Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Canton

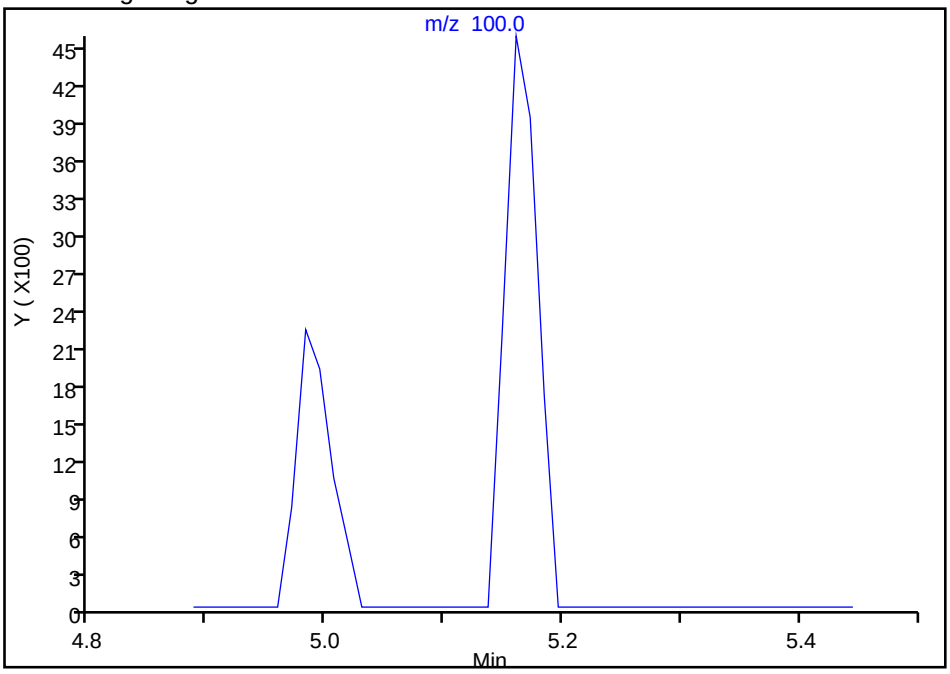
Data File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8415.D
Injection Date: 21-Jan-2019 13:26:30 Instrument ID: A3UX15
Lims ID: STD8260 L1
Client ID:
Operator ID: ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

56 n-Heptane, CAS: 142-82-5

Signal: 1

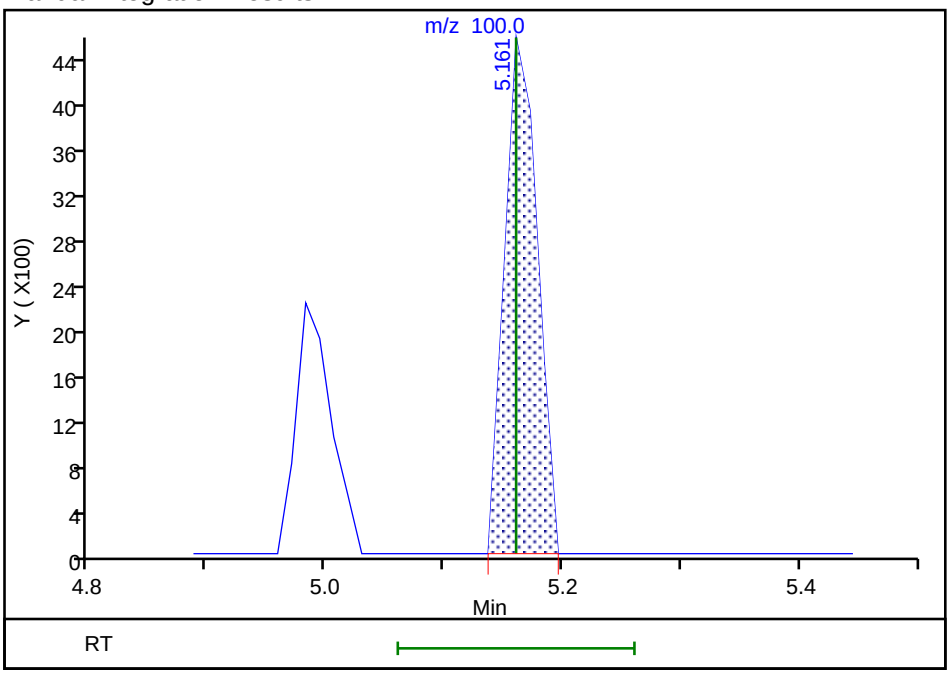
Not Detected
Expected RT: 5.16

Processing Integration Results



Manual Integration Results

RT: 5.16
Area: 8801
Amount: 0.936957
Amount Units: ug/l



Reviewer: evansle, 21-Jan-2019 13:47:12
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-109197-1

SDG No.:

Client Sample ID: MW-130S_030619 Lab Sample ID: 240-109197-1

Matrix: Water Lab File ID: UXC9304.D

Analysis Method: 8260B Date Collected: 03/06/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 03/12/2019 10:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 371207 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
156-59-2	cis-1,2-Dichloroethene	0.18	J	1.0	0.16
127-18-4	Tetrachloroethene	0.18	J B	1.0	0.15
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	0.12	J B	1.0	0.10
75-01-4	Vinyl chloride	1.1		1.0	0.20

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		70-121
460-00-4	4-Bromofluorobenzene (Surr)	71		59-120
2037-26-5	Toluene-d8 (Surr)	81		70-123
1868-53-7	Dibromofluoromethane (Surr)	92		75-128

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D
Lims ID: 240-109197-B-1
Client ID: MW-130S_030619
Sample Type: Client
Inject. Date: 12-Mar-2019 10:48:30 ALS Bottle#: 7 Worklist Smp#: 35
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0085087-035
Misc. Info.: C90312A,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15

Method: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Mar-2019 12:09:28 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: evansle Date: 12-Mar-2019 12:09:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.196	5.196	0.000	99	1813305	10.0	
* 2 Chlorobenzene-d5	117	7.876	7.876	0.000	84	1397934	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.117	10.117	0.000	93	753823	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.639	4.638	0.000	95	313826	7.31	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.923	4.923	0.000	99	388165	7.04	
$ 6 Toluene-d8 (Surr)	98	6.560	6.560	0.000	93	1091617	6.43	
$ 7 4-Bromofluorobenzene (Surr	95	8.979	8.991	-0.012	96	345672	5.70	
11 Vinyl chloride	62	1.769	1.769	0.000	98	55552	1.06	
19 1,1-Dichloroethene	96		2.777				ND	
30 trans-1,2-Dichloroethene	96		3.405				ND	
39 cis-1,2-Dichloroethene	96	4.235	4.247	-0.012	73	10191	0.1826	
58 Trichloroethene	130	5.504	5.504	0.000	93	6773	0.1153	
74 Tetrachloroethene	164	7.117	7.117	0.000	90	8261	0.1808	

Reagents:

vm40ml_vials_00009	Amount Added: 0.00	Units:	Run Reagent
VM50IS_00075	Amount Added: 1.00	Units: uL	Run Reagent
vm50ss_stk_00080	Amount Added: 0.80	Units: uL	Run Reagent
vmDist_H2o_00140	Amount Added: 0.00	Units:	Run Reagent

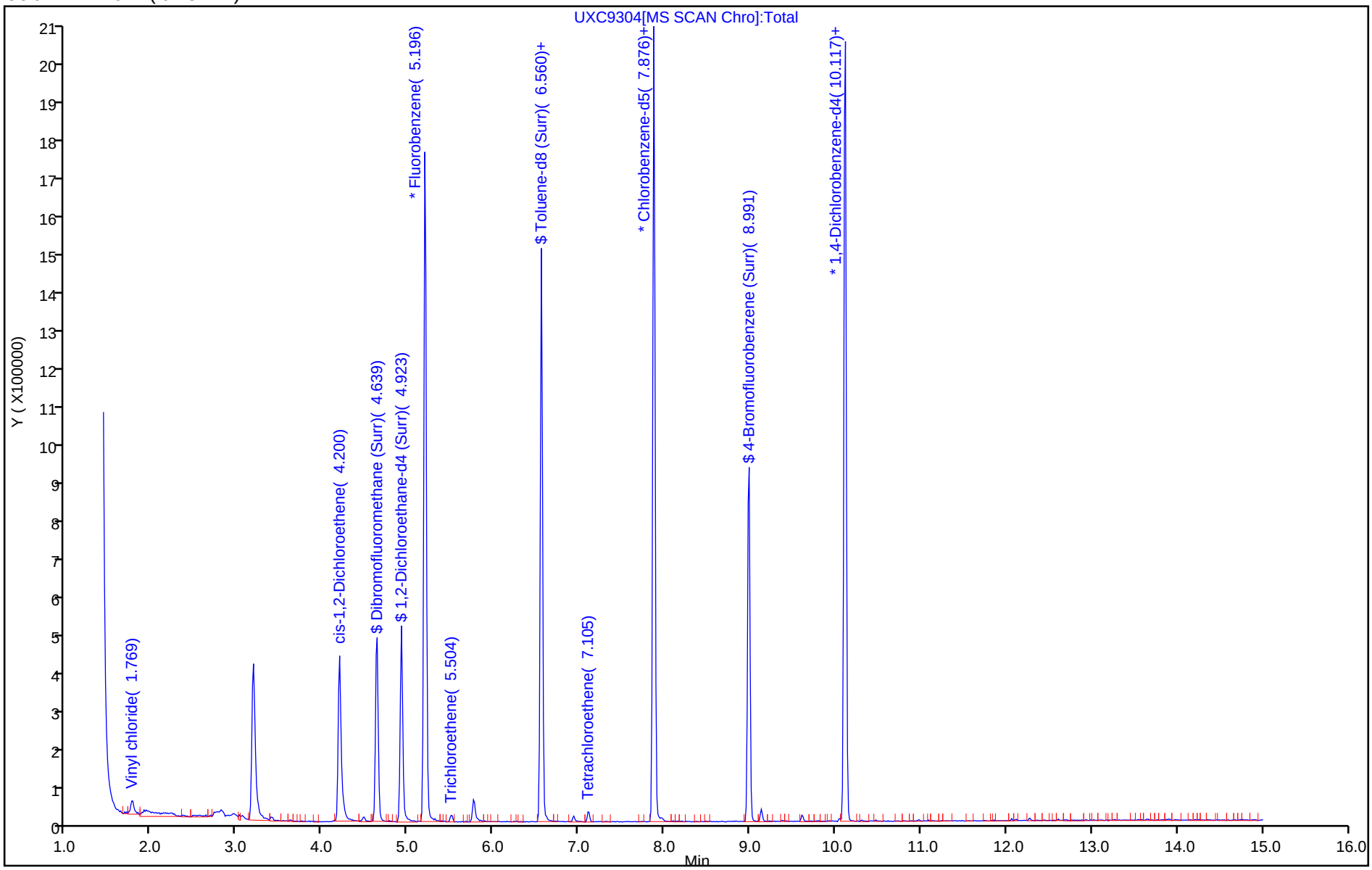
Report Date: 12-Mar-2019 12:09:32 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D

Injection Date:	12-Mar-2019 10:48:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	240-109197-B-1	Lab Sample ID:	240-109197-1	Worklist Smp#:	35
Client ID:	MW-130S_030619				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Recovery Report

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D
Lims ID: 240-109197-B-1
Client ID: MW-130S_030619
Sample Type: Client
Inject. Date: 12-Mar-2019 10:48:30 ALS Bottle#: 7 Worklist Smp#: 35
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0085087-035
Misc. Info.: C90312A,8260LLUX15,,43582
Operator ID: Instrument ID: A3UX15

Method: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Mar-2019 12:09:28 Calib Date: 21-Jan-2019 19:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Canton\ChromData\A3UX15\20190121-83824.b\UXC8431.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: evansle Date: 12-Mar-2019 12:09:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	7.97	7.31	91.77
$ 5 1,2-Dichloroethane-d4 (Surr)	7.97	7.04	88.30
$ 6 Toluene-d8 (Surr)	7.97	6.43	80.72
$ 7 4-Bromofluorobenzene (Surr)	7.97	5.70	71.47

Report Date: 12-Mar-2019 12:09:32 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D

Injection Date: 12-Mar-2019 10:48:30 Instrument ID: A3UX15

Lims ID: 240-109197-B-1 Lab Sample ID: 240-109197-1

Client ID: MW-130S_030619

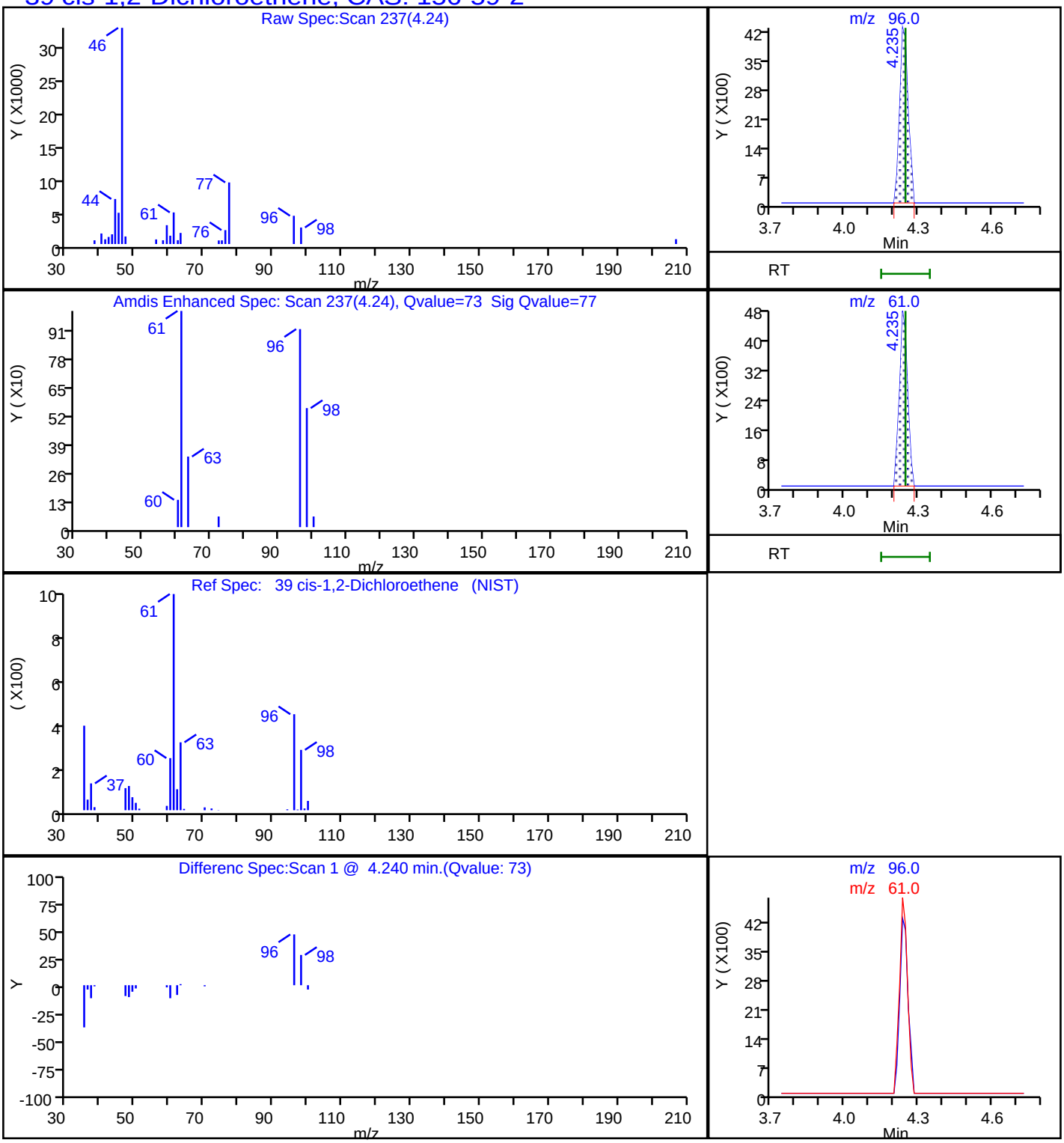
Operator ID: ALS Bottle#: 7 Worklist Smp#: 35

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

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



Report Date: 12-Mar-2019 12:09:32 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D

Injection Date: 12-Mar-2019 10:48:30 Instrument ID: A3UX15

Lims ID: 240-109197-B-1 Lab Sample ID: 240-109197-1

Client ID: MW-130S_030619

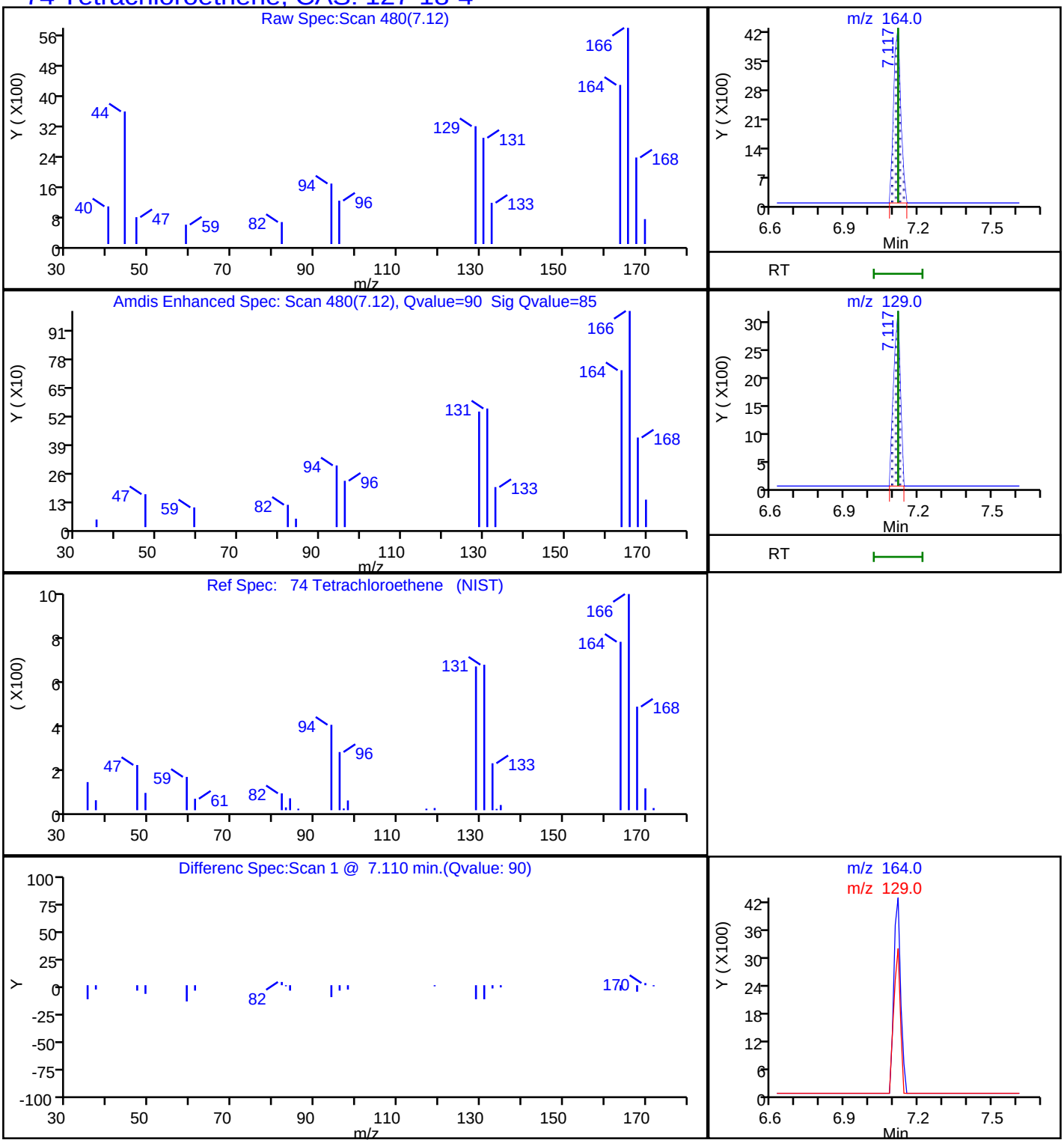
Operator ID: ALS Bottle#: 7 Worklist Smp#: 35

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

74 Tetrachloroethene, CAS: 127-18-4



Report Date: 12-Mar-2019 12:09:32 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D

Injection Date: 12-Mar-2019 10:48:30 Instrument ID: A3UX15

Lims ID: 240-109197-B-1 Lab Sample ID: 240-109197-1

Client ID: MW-130S_030619

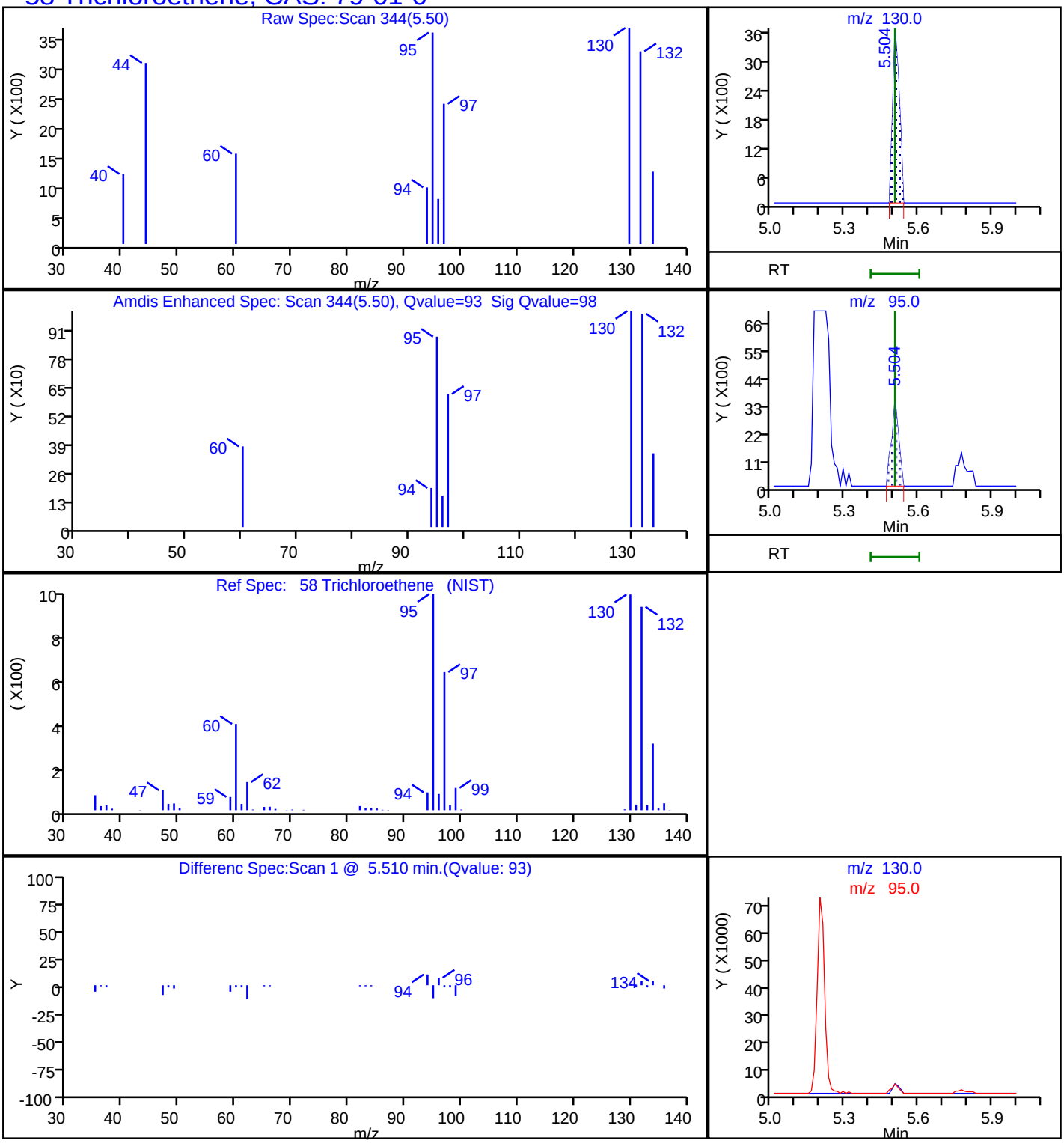
Operator ID: ALS Bottle#: 7 Worklist Smp#: 35

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6



Report Date: 12-Mar-2019 12:09:32 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Canton

Data File: \\chromna\Canton\ChromData\A3UX15\20190312-85087.b\UXC9304.D

Injection Date: 12-Mar-2019 10:48:30 Instrument ID: A3UX15

Lims ID: 240-109197-B-1 Lab Sample ID: 240-109197-1

Client ID: MW-130S_030619

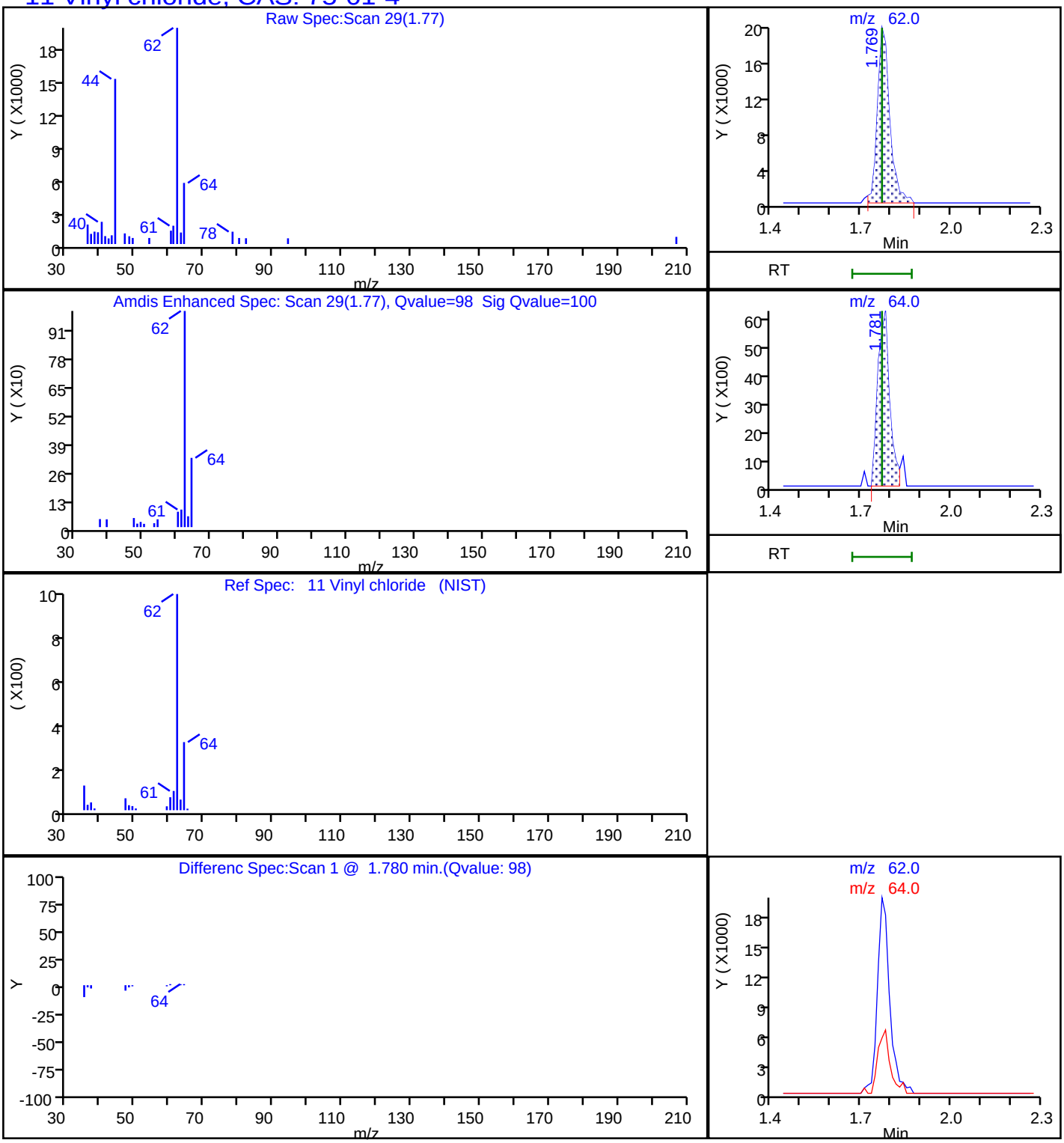
Operator ID: ALS Bottle#: 7 Worklist Smp#: 35

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: 8260_15 Limit Group: MSV 8260B ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

11 Vinyl chloride, CAS: 75-01-4



Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(70-121)	(59-120)	(70-123)	(75-128)
240-109197-1	MW-130S_030619	88	71	81	92
LCS 240-371207/4	Lab Control Sample	79	82	83	87
MB 240-371207/6	Method Blank	92	73	83	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		DCA
Lab Sample ID	Client Sample ID	(63-125)
240-108876-C-7 MS	Matrix Spike	80
240-108876-C-7 MSD	Matrix Spike Duplicate	84
240-109197-1	MW-130S_030619	81
LCS 240-371078/4	Lab Control Sample	79
MB 240-371078/5	Method Blank	82

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		DCA
Lab Sample ID	Client Sample ID	(10-150)
MRL 240-371078/6	Lab Control Sample	78

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

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

Lab Sample ID: MB 240-371207/6
Matrix: Water
Analysis Batch: 371207

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/12/19 10:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			03/12/19 10:01	1
Tetrachloroethene	0.193	J	1.0	0.15	ug/L			03/12/19 10:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/12/19 10:01	1
Trichloroethene	0.124	J	1.0	0.10	ug/L			03/12/19 10:01	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/12/19 10:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 121*		*03/12/19 10:01*	*1*
4-Bromofluorobenzene (Surr)	*73*		*59 - 120*		*03/12/19 10:01*	*1*
Toluene-d8 (Surr)	*83*		*70 - 123*		*03/12/19 10:01*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 128*		*03/12/19 10:01*	*1*

Lab Sample ID: LCS 240-371207/4
Matrix: Water
Analysis Batch: 371207

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	8.57		ug/L		86	65 - 139
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	76 - 128
Tetrachloroethene	10.0	11.4		ug/L		114	74 - 130
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	78 - 133
Trichloroethene	10.0	10.3		ug/L		103	76 - 125
Vinyl chloride	10.0	8.19		ug/L		82	58 - 143

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*79*		*70 - 121*
4-Bromofluorobenzene (Surr)	*82*		*59 - 120*
Toluene-d8 (Surr)	*83*		*70 - 123*
Dibromofluoromethane (Surr)	*87*		*75 - 128*

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

Lab Sample ID: MB 240-371078/5
Matrix: Water
Analysis Batch: 371078

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/11/19 13:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*63 - 125*		*03/11/19 13:44*	*1*

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

Lab Sample ID: LCS 240-371078/4
Matrix: Water
Analysis Batch: 371078

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			10.0	11.6		ug/L		116	59 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*79*		*63 - 125*

Lab Sample ID: MRL 240-371078/6
Matrix: Water
Analysis Batch: 371078

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			0.00100	0.00112	J	ng/uL		112	10 - 150		

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*78*		*10 - 150*

Lab Sample ID: 240-108876-C-7 MS
Matrix: Water
Analysis Batch: 371078

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	1.9	J	10.0	13.5		ug/L		116	52 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*63 - 125*

Lab Sample ID: 240-108876-C-7 MSD
Matrix: Water
Analysis Batch: 371078

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.9	J	10.0	13.6		ug/L		118	52 - 129	1	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*63 - 125*

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

GC/MS VOA

Analysis Batch: 371078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109197-1	MW-130S_030619	Total/NA	Water	8260B SIM	
MB 240-371078/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-371078/4	Lab Control Sample	Total/NA	Water	8260B SIM	
MRL 240-371078/6	Lab Control Sample	Total/NA	Water	8260B SIM	
240-108876-C-7 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-108876-C-7 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 371207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109197-1	MW-130S_030619	Total/NA	Water	8260B	
MB 240-371207/6	Method Blank	Total/NA	Water	8260B	
LCS 240-371207/4	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

Client Sample ID: MW-130S_030619
Date Collected: 03/06/19 12:30
Date Received: 03/11/19 08:50

Lab Sample ID: 240-109197-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	371207	03/12/19 10:48	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	371078	03/11/19 22:05	SAM	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203631

TestAmerica Job ID: 240-109197-1

Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-20
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19
Illinois	NELAP	5	200004	07-31-19
Kansas	NELAP	7	E-10336	04-30-19 *
Kentucky (UST)	State Program	4	58	02-23-20
Kentucky (WW)	State Program	4	98016	12-31-19
Minnesota	NELAP	5	039-999-348	12-31-19 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19
New York	NELAP	2	10975	03-31-19 *
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-20
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-18-10	08-31-19
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19
Washington	State Program	10	C971	01-12-20 *
West Virginia DEP	State Program	3	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

MICHIGAN 190

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: Brighton — 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager: Kris Hinskey	Site Contact: Angela DeGrandis	Lab Contact: Mike DelMonico	COC No:
Company Name: Arcadis				
Address: 28550 Cabot Drive, Suite 500	Telephone: 248-994-2240	Telephone: 734-320-0065	Telephone: 330-497-9396	/ of / COCs
City/State/Zip: Novi, MI, 48377	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	For lab use only
Phone: 248-994-2240		TAT if different from below ☐ 3 weeks ☑ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client
Project Name: Ford LTP		10 day		Lab sampling
Project Number: ~~MI001454.0004.00002~~ MI001454.0006.00003	Method of Shipment/Carrier:			Job/SDG No:
PO # ~~MI001454.0004.00002~~ MI001454.0006.00003	Shipping/Tracking No:			

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	1,1-DCE 8260B	cis-1,2-DCE 8260B	Trans-1,2-DCE 8260B	PCE 8260B	TCE 8260B	Vinyl Chloride 8260B	1,4-Dioxane 8260B SIM	Sample Specific Notes / Special Instructions:
MW-130S-030619	3/6/19	1230		X						X					N	G	X	X	X	X	X	X	3	3 VOAs FOR 8260B 3 VOAs FOR 8260B SIM

240-109197 Chain of Custody

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

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

Special Instructions/QC Requirements & Comments:

Submit all results through Cadena at jim.tomalia@cadena.com. Cadena #E203631
Level IV Reporting.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
RACHEL BIELAK	ARCADIS	3/7/19 1430	NOVI COLD STORAGE	ARCADIS	3/7/19 1430
Caitlin O'Neill	ARCADIS	3/8/19 13:20		TESTAMERICA	3/8/19 1320
	TESTAMERICA	3/8/19 14:40	Received in Laboratory by:		3/11/19 850

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 109197**
Canton Facility

Client Arcadis Site Name

Cooler unpacked by:

Cooler Received on 3/11/19 Opened on 3/11/19

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # NA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.2** °C) Observed Cooler Temp. 2.0 °C Corrected Cooler Temp. 1.8 °C
   IR GUN #36 (CF **+0.7**°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC861525**
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
16. Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: JR

18. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

WI-NC-099

March 20, 2019

Kris Hinskey
Arcadis Inc
10559 Citation Ave
Suite 100
Brighton, MI 48116

CADENA project ID: E203631
Project: Ford Livonia Transmission Project - OFF-SITE - Soil Gas and Groundwater
Project number: MI001454.0002/3/4.00002/2B/3B
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - North Canton
Laboratory submittal: 109197-1
Sample date: 2019-03-06
Report received by CADENA: 2019-03-20
Initial Data Verification completed by CADENA: 2019-03-20

The following minor QC exceptions or missing information were noted:

MBK - GCMS VOC QC batch 371207 method blank had detections below the RL for the following analytes: TRICHLOROETHENE and TETRACHLOROETHENE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: -001.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

1 Water sample was analyzed for GCMS VOC parameter(s).

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203631
Laboratory: TestAmerica-North Canton
Laboratory Submittal: 109197-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	Volatile Organics by GCMS	8260B with Single Ion Monitoring	Comment
2401091971	MW-130S_030619	3/6/2019	12:30:00	X	X	

Qualified Results Summary

CADENA Project ID: E203631
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 109197-1

Sample Name: MW-130S_030619
Lab Sample ID: 2401091971
Sample Date: 3/6/2019

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC					
OSW-8260B					
Tetrachloroethene	127-18-4	0.18	1.0	ug/l	UB
Trichloroethene	79-01-6	0.12	1.0	ug/l	UB

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203631
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 109197-1

Sample Name: MW-130S_030619
Lab Sample ID: 2401091971
Sample Date: 3/6/2019

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC					
OSW-8260B					
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	0.18	1.0	ug/l	J
Tetrachloroethene	127-18-4	0.18	1.0	ug/l	UB
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---
Trichloroethene	79-01-6	0.12	1.0	ug/l	UB
Vinyl chloride	75-01-4	1.1	1.0	ug/l	---
OSW-8260BBSim					
1,4-Dioxane	123-91-1	ND	2.0	ug/l	---

ARCADIS Design & Consultancy for natural and built assets

Ford Motor Company – Livonia Transmission Project

DATA REVIEW

Livonia, Michigan

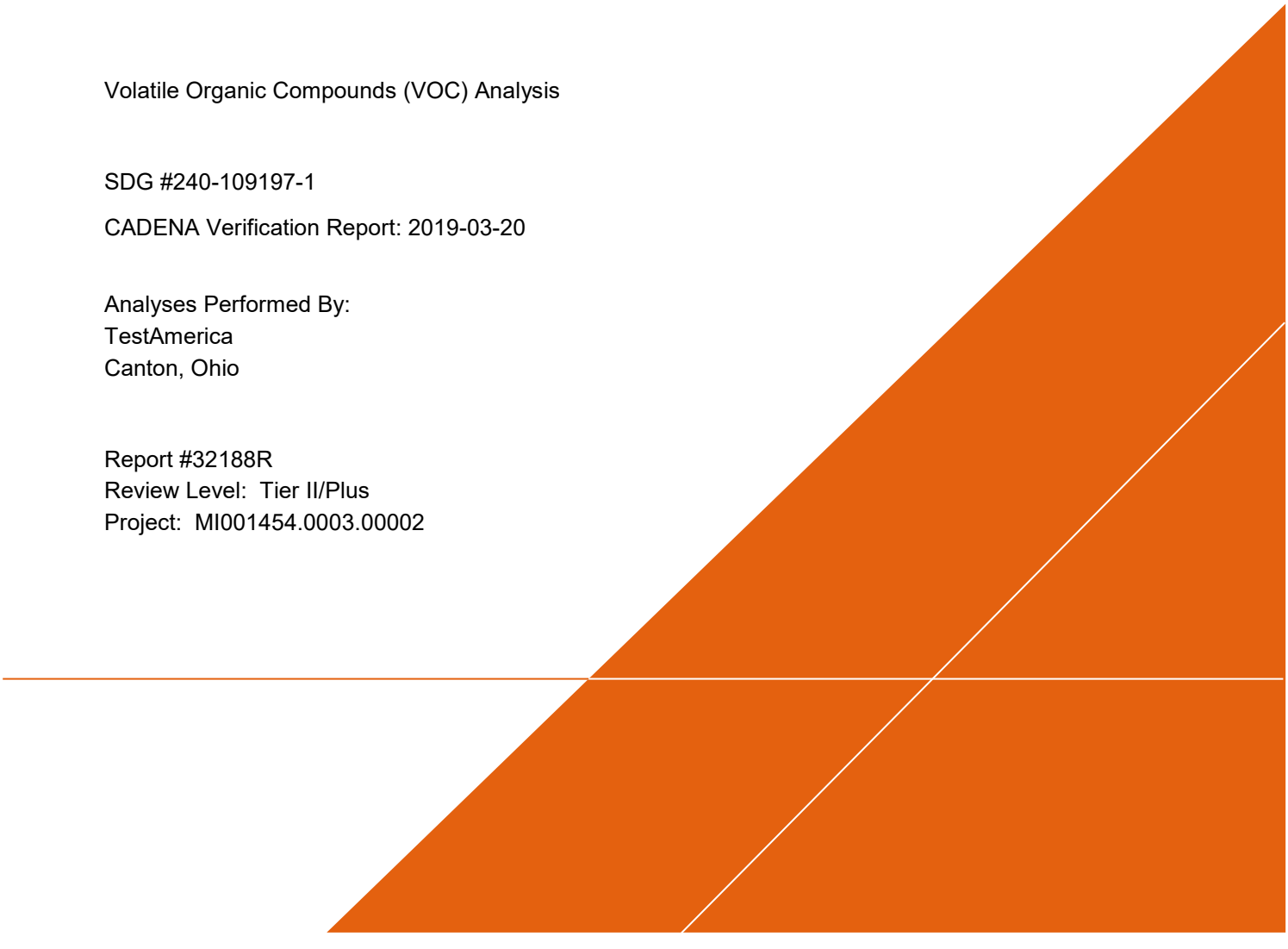
Volatile Organic Compounds (VOC) Analysis

SDG #240-109197-1

CADENA Verification Report: 2019-03-20

Analyses Performed By:
TestAmerica
Canton, Ohio

Report #32188R
Review Level: Tier II/Plus
Project: MI001454.0003.00002



SUMMARY

This data quality assessment/verification summarizes the confirmation of detected compounds (if applicable), review of the verification/Tier II validation review performed by CADENA Inc. and review of level II laboratory data package completeness for Sample Delivery Group (SDG) # 240-109197-1 for samples collected in association with the Ford – Livonia, Michigan site. Only detected compound confirmations and omitted deviations from the CADENA verification/Tier II report are documented in this report. The Tier II/Plus validation is performed in the instance when a sample location has a detection at a concentration of 5 ppb or less. The detection and the concentration are reviewed and verified based on the instrument calibration and laboratory raw data. Only analytical data associated with constituents of concern were reviewed for this verification. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						VOC	VOC (SIM)	MISC
240-109197-1	MW-130S_030619	240-109197-1	Water	3/6/2019		X	X	

Notes:
VOC = volatile organic compound
SIM = selective ion monitoring
MISC = miscellaneous

DATA REVIEW

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of Quality Assurance or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

DATA REVIEW

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B and 8260B SIM. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

  UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

1.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

1.2 Continuing Calibration

All target compounds associated with the continuing calibration verification (CCV) standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
MW-130S_030619	CCV %D	Tetrachloroethene	+23.6

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J

2. Compound Identification

Compounds are identified on the GC/MS by using the analyte's relative retention time, ion spectra, and concentration.

All identified compounds met the criteria defined in the analytical method.

3. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in the CADENA Inc. review and this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: 8260B/8260B-SIM	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II+ Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	

Notes:

RT retention time

VERIFICATION/VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE: 

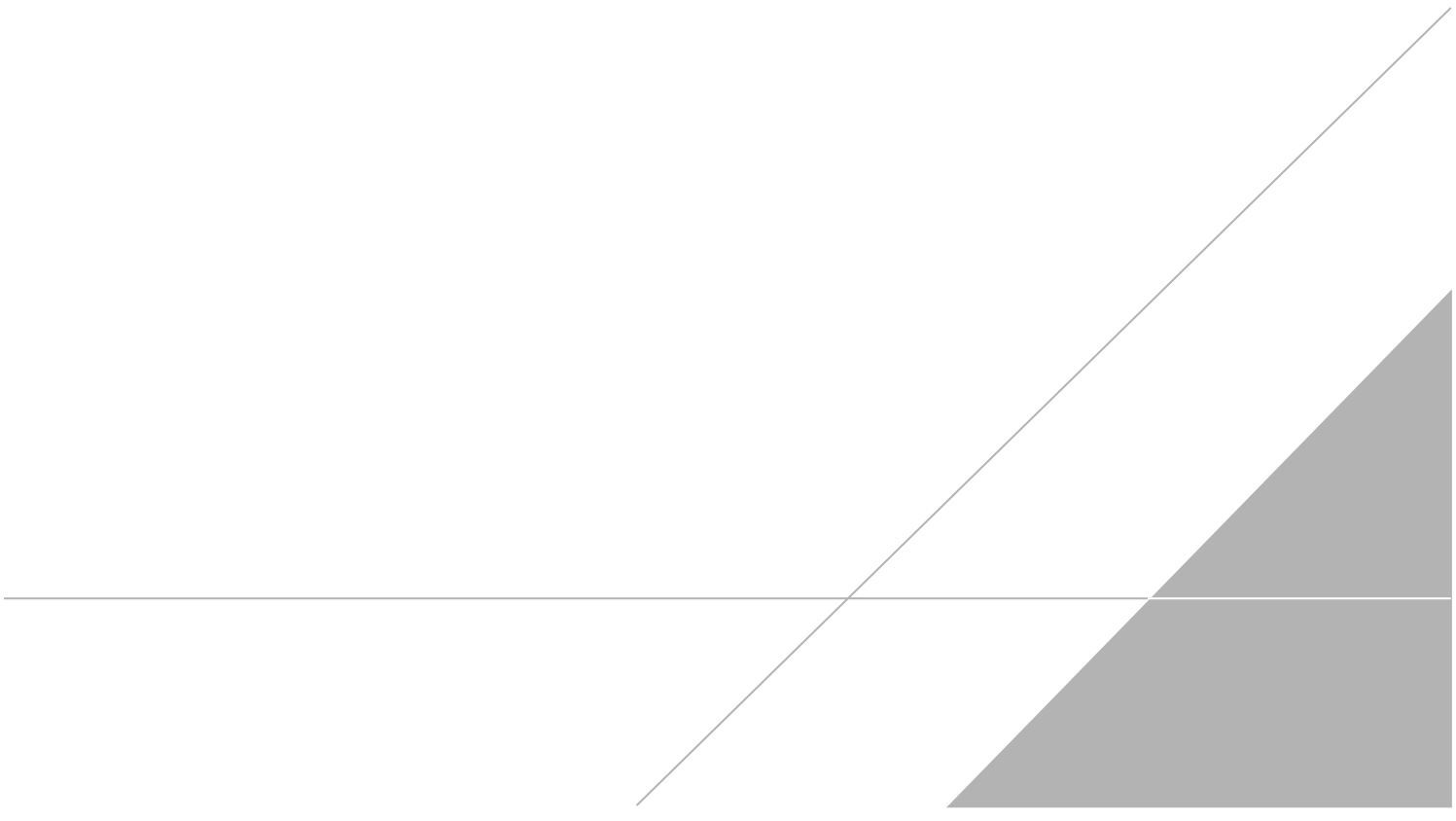
DATE: March 21, 2019

PEER REVIEW: Dennis Capria

DATE: March 21, 2019

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS



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Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: Brighton — 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager: Kris Hinskey	Site Contact: Angela DeGrandis	Lab Contact: Mike DelMonico	COC No:
Company Name: Arcadis				
Address: 28550 Cabot Drive, Suite 500	Telephone: 248-994-2240	Telephone: 734-320-0065	Telephone: 330-497-9396	/ of / COCs
City/State/Zip: Novi, MI, 48377	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	For lab use only
Phone: 248-994-2240		TAT if different from below ☐ 3 weeks ☑ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client
Project Name: Ford LTP		10 day		Lab sampling
Project Number: ~~MI001454.0004.00002~~ MI001454.0006.00003	Method of Shipment/Carrier:			Job/SDG No:
PO # ~~MI001454.0004.00002~~ MI001454.0006.00003	Shipping/Tracking No:			

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	1,1-DCE 8260B	cis-1,2-DCE 8260B	Trans-1,2-DCE 8260B	PCE 8260B	TCE 8260B	Vinyl Chloride 8260B	1,4-Dioxane 8260B SIM	Sample Specific Notes / Special Instructions:
MW-130S-030619	3/6/19	1230		X						X					N	G	X	X	X	X	X	X	3	3 VOAs FOR 8260B 3 VOAs FOR 8260B SIM

240-109197 Chain of Custody

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

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

Special Instructions/QC Requirements & Comments:

Submit all results through Cadena at jim.tomalia@cadena.com. Cadena #E203631
Level IV Reporting.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
RACHEL BIELAK	ARCADIS	3/7/19 1430	NOVI COLD STORAGE	ARCADIS	3/7/19 1430
Caitlin O'Neill	ARCADIS	3/8/19 13:20		TESTAMERICA	3/8/19 1320
	TESTAMERICA	3/8/19 14:40	Received in Laboratory by:		3/11/19 850

Client Sample ID: MW-130S_030619
Date Collected: 03/06/19 12:30
Date Received: 03/11/19 08:50

Lab Sample ID: 240-109197-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/11/19 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*63 - 125*		*03/11/19 22:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/12/19 10:48	1
cis-1,2-Dichloroethene	**0.18**	**J**	1.0	0.16	ug/L			03/12/19 10:48	1
Tetrachloroethene	~~**0.18**~~	~~**J B**~~ UB	1.0	0.15	ug/L			03/12/19 10:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/12/19 10:48	1
Trichloroethene	~~**0.12**~~	~~**J B**~~ UB	1.0	0.10	ug/L			03/12/19 10:48	1
Vinyl chloride	**1.1**		1.0	0.20	ug/L			03/12/19 10:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 121*		*03/12/19 10:48*	*1*
4-Bromofluorobenzene (Surr)	*71*		*59 - 120*		*03/12/19 10:48*	*1*
Toluene-d8 (Surr)	*81*		*70 - 123*		*03/12/19 10:48*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 128*		*03/12/19 10:48*	*1*