ANALYTICAL REPORT

Job Number: 280-68970-1

Job Description: GSI - McConnell AFB (SWMU207)

For:
GSI Environmental, Inc
9600 Great Hills Trail, Ste 350E
Austin, TX 78759

Attention: Anna Zabierek

Approved for release.
Elaine M Walker
Project Manager II
5/28/2015 2:01 PM

Elaine M Walker, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0156
elaine.walker@testamericainc.com
05/28/2015

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

Table of Contents

Cover Title Page 1

Data Summaries 4

- Report Narrative 4
- Manual Integration Summary 5
- Sample Summary 10
- Executive Summary 11
- Method Summary 12
- Method / Analyst Summary 13
- Sample Datasheets 14
- Surrogate Summary 24
- QC Data Summary 25
- Data Qualifiers 29
- QC Association Summary 30
- Lab Chronicle 31
- Reagent Traceability 33
  - COAs 41
- Certification Summary 64

Organic Sample Data 65

- GC/MS VOA 65
  - Method 8260B 65
    - Method 8260B QC Summary 66
    - Method 8260B Sample Data 76
    - Standards Data 127
      - Method 8260B ICAL Data 127
      - Method 8260B CCAL Data 225
    - Raw QC Data 305

Table of Contents

Method 8260B Tune Data 305

Method 8260B Blank Data 317

Method 8260B LCS/LCSD Data 327

Method 8260B Run Logs 337

Shipping and Receiving Documents 359

Client Chain of Custody 360

Sample Receipt Checklist 361

CASE NARRATIVE
Client: GSI Environmental, Inc
Project: GSI - McConnell AFB (SWMU207)
Report Number: 280-68970-1

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.

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.

RECEIPT

Six samples were received on 05/09/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.5°C.

Sample 54400-MW50D-0515 (280-68970-2) required a rush TAT and the results of this sample have been reported under separate cover in SDG 280-68970-2. This report contains the results of the samples requiring standard TAT.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 54403-TB13-0515 (280-68970-1), 54400-MW46D-0515 (280-68970-3), 54401-MW46D-0515-DUP (280-68970-4), 54402-EB15-0515 (280-68970-5) and 54402-EB14-0515 (280-68970-6) were analyzed for volatile organic compounds (GC/MS) in accordance with 8260B. The samples were analyzed on 05/19/2015.

1,2,3-Trichlorobenzene and Methylene Chloride were detected in method blank MB 280-278072/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. However, because the result concentrations were less than ½ the respective reporting limit, no corrective action was necessary.

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Analysis Batch Number: 274661

Lab Sample ID: IC 280-274661/18 Client Sample ID:

Date Analyzed: 04/27/15 11:28 Lab File ID: Z6773.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tert-amyl methyl ether	6.19	Split Peak	bergerb	04/27/15 20:40

Lab Sample ID: IC 280-274661/19 Client Sample ID:

Date Analyzed: 04/27/15 11:51 Lab File ID: Z6774.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.30	Split Peak	bergerb	04/27/15 20:43
Tert-amyl methyl ether	6.19	Split Peak	bergerb	04/27/15 20:40

Lab Sample ID: IC 280-274661/20 Client Sample ID:

Date Analyzed: 04/27/15 12:13 Lab File ID: Z6775.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tert-amyl methyl ether	6.19	Split Peak	bergerb	04/27/15 20:40

Lab Sample ID: ICIS 280-274661/21 Client Sample ID:

Date Analyzed: 04/27/15 12:36 Lab File ID: Z6776.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tert-amyl methyl ether	6.18	Split Peak	bergerb	04/27/15 20:40

Lab Sample ID: IC 280-274661/22 Client Sample ID:

Date Analyzed: 04/27/15 12:59 Lab File ID: Z6777.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tert-amyl methyl ether	6.18	Split Peak	bergerb	04/27/15 20:41

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Analysis Batch Number: 274661

Lab Sample ID: IC 280-274661/23 Client Sample ID:

Date Analyzed: 04/27/15 13:21 Lab File ID: Z6778.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tert-amyl methyl ether	6.20	Split Peak	bergerb	04/27/15 20:41

Lab Sample ID: ICV 280-274661/24 Client Sample ID:

Date Analyzed: 04/27/15 14:12 Lab File ID: Z6780.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tert-amyl methyl ether	6.18	Split Peak	bergerb	04/27/15 20:41

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Analysis Batch Number: 277378

Lab Sample ID: IC 280-277378/9 Client Sample ID:

Date Analyzed: 05/14/15 08:19 Lab File ID: Z7570.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	5.99	Assign Peak	moanm	05/14/15 12:41

Lab Sample ID: IC 280-277378/10 Client Sample ID:

Date Analyzed: 05/14/15 08:42 Lab File ID: Z7571.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl ether	2.79	Wrong peak	moanm	05/14/15 11:38
2,2-Dichloropropane	4.90	Shouldering	moanm	05/14/15 12:43
Tetrahydrofuran	5.25	Assign Peak	moanm	05/14/15 11:38
1,2-Dichloroethane	5.99	Assign Peak	moanm	05/14/15 11:38
2-Chlorotoluene	13.67	Assign Peak	moanm	05/14/15 11:38

Lab Sample ID: IC 280-277378/11 Client Sample ID:

Date Analyzed: 05/14/15 09:05 Lab File ID: Z7572.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.94	Shouldering	moanm	05/14/15 12:47
tert-Butyl alcohol	3.54	Baseline	moanm	05/14/15 12:47
Isobutyl alcohol	5.84	Assign Peak	moanm	05/14/15 12:47
2-Chlorotoluene	13.67	Assign Peak	moanm	05/14/15 12:47

Lab Sample ID: IC 280-277378/12 Client Sample ID:

Date Analyzed: 05/14/15 09:28 Lab File ID: Z7573.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	moanm	05/14/15 12:49
2-Chlorotoluene	13.67	Assign Peak	moanm	05/14/15 12:49

8260B

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Analysis Batch Number: 277378

Lab Sample ID: IC 280-277378/13 Client Sample ID:

Date Analyzed: 05/14/15 09:50 Lab File ID: Z7574.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	moanm	05/14/15 12:50
2-Chlorotoluene	13.67	Assign Peak	moanm	05/14/15 12:50

Lab Sample ID: IC 280-277378/14 Client Sample ID:

Date Analyzed: 05/14/15 10:13 Lab File ID: Z7575.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	moanm	05/14/15 12:52
2-Chlorotoluene	13.67	Assign Peak	moanm	05/14/15 12:52

Lab Sample ID: IC 280-277378/15 Client Sample ID:

Date Analyzed: 05/14/15 10:35 Lab File ID: Z7576.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	moanm	05/14/15 12:54
tert-Butyl alcohol	3.59	Peak Tail	moanm	05/14/15 12:54
2-Chlorotoluene	13.67	Assign Peak	moanm	05/14/15 12:54

Lab Sample ID: ICV 280-277378/16 Client Sample ID:

Date Analyzed: 05/14/15 11:21 Lab File ID: Z7578.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Baseline	moanm	05/14/15 12:08
tert-Butyl alcohol	3.58	Baseline	moanm	05/14/15 12:08
2-Chlorotoluene	13.65	Assign Peak	moanm	05/14/15 12:08

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Analysis Batch Number: 278072

Lab Sample ID: CCV 280-278072/2 Client Sample ID:

Date Analyzed: 05/19/15 06:53 Lab File ID: Z7712.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.98	Shouldering	moanm	05/19/15 07:19
2-Chlorotoluene	13.69	Assign Peak	moanm	05/19/15 07:19

Lab Sample ID: LCS 280-278072/4 Client Sample ID:

Date Analyzed: 05/19/15 07:38 Lab File ID: Z7714.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	moanm	05/19/15 08:03
Methyl tert-butyl ether	3.82	Split Peak	moanm	05/19/15 08:03
2-Chlorotoluene	13.68	Assign Peak	moanm	05/19/15 08:03

Lab Sample ID: CCVC 280-278072/26 Client Sample ID:

Date Analyzed: 05/19/15 14:28 Lab File ID: Z7732.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	moanm	05/20/15 06:48
2-Chlorotoluene	13.67	Assign Peak	bergerb	05/19/15 15:54

SAMPLE SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-68970-1TB	54403-TB13-0515	Water	05/07/2015 0000	05/09/2015 0915
280-68970-3	54400-MW46D-0515	Water	05/08/2015 0840	05/09/2015 0915
280-68970-4FD	54401-MW46D-0515-DUP	Water	05/08/2015 0840	05/09/2015 0915
280-68970-5EB	54402-EB15-0515	Water	05/08/2015 1000	05/09/2015 0915
280-68970-6EB	54402-EB14-0515	Water	05/07/2015 1740	05/09/2015 0915

EXECUTIVE SUMMARY - Detections

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-68970-1TB	**54403-TB13-0515**					
Methylene Chloride		0.34	J	5.0	ug/L	8260B
280-68970-3	**54400-MW46D-0515**					
1,1-Dichloroethane		0.21	J	1.0	ug/L	8260B
1,1-Dichloroethene		26		1.0	ug/L	8260B
Bromodichloromethane		0.78	J	1.0	ug/L	8260B
Carbon tetrachloride		2.6		2.0	ug/L	8260B
Chlorodibromomethane		1.0		1.0	ug/L	8260B
Chloroform		1.8		1.0	ug/L	8260B
Methylene Chloride		0.36	J	5.0	ug/L	8260B
Trichloroethene		13		1.0	ug/L	8260B
280-68970-4FD	**54401-MW46D-0515-DUP**					
1,1-Dichloroethane		0.20	J	1.0	ug/L	8260B
1,1-Dichloroethene		24		1.0	ug/L	8260B
Bromodichloromethane		0.79	J	1.0	ug/L	8260B
Carbon tetrachloride		2.5		2.0	ug/L	8260B
Chlorodibromomethane		1.0		1.0	ug/L	8260B
Chloroform		1.8		1.0	ug/L	8260B
Methylene Chloride		0.34	J	5.0	ug/L	8260B
Trichloroethene		12		1.0	ug/L	8260B
280-68970-5EB	**54402-EB15-0515**					
2-Butanone (MEK)		18		6.0	ug/L	8260B
Acetone		12		10	ug/L	8260B
280-68970-6EB	**54402-EB14-0515**					
2-Butanone (MEK)		17		6.0	ug/L	8260B
Acetone		10		10	ug/L	8260B

METHOD SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B

Lab References:

TAL DEN = TestAmerica Denver

Method References:

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

METHOD / ANALYST SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Method	Analyst	Analyst ID
SW846 8260B	Moan, Matthew R	MRM

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54403-TB13-0515**

Lab Sample ID: 280-68970-1TB

Client Matrix: Water

Date Sampled: 05/07/2015 0000

Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7727.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1234			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1234				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: 54403-TB13-0515

Lab Sample ID: 280-68970-1TB
Client Matrix: Water

Date Sampled: 05/07/2015 0000
Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7727.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1234			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1234				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.34	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		81 - 118
4-Bromofluorobenzene (Surr)	100		85 - 114
Dibromofluoromethane (Surr)	106		80 - 119
Toluene-d8 (Surr)	104		89 - 112

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54400-MW46D-0515**

Lab Sample ID: 280-68970-3
Client Matrix: Water

Date Sampled: 05/08/2015 0840
Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7728.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1257			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1257				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.21	J	0.16	1.0
1,1-Dichloroethene	26		0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.78	J	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	2.6		0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	1.0		0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	1.8		0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54400-MW46D-0515**

Lab Sample ID: 280-68970-3

Client Matrix: Water

Date Sampled: 05/08/2015 0840

Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7728.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1257			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1257				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.36	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	13		0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		81 - 118
4-Bromofluorobenzene (Surr)	100		85 - 114
Dibromofluoromethane (Surr)	107		80 - 119
Toluene-d8 (Surr)	99		89 - 112

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54401-MW46D-0515-DUP**

Lab Sample ID: 280-68970-4FD
Client Matrix: Water

Date Sampled: 05/08/2015 0840
Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7729.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1320			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1320				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.20	J	0.16	1.0
1,1-Dichloroethene	24		0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.79	J	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	2.5		0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	1.0		0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	1.8		0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54401-MW46D-0515-DUP**

Lab Sample ID: 280-68970-4FD
Client Matrix: Water

Date Sampled: 05/08/2015 0840
Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7729.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1320			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1320				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.34	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	12		0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		81 - 118
4-Bromofluorobenzene (Surr)	97		85 - 114
Dibromofluoromethane (Surr)	105		80 - 119
Toluene-d8 (Surr)	102		89 - 112

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54402-EB15-0515**

Lab Sample ID: 280-68970-5EB
Client Matrix: Water

Date Sampled: 05/08/2015 1000
Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7730.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1342			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1342				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	18		1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	12		1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54402-EB15-0515**

Lab Sample ID: 280-68970-5EB

Client Matrix: Water

Date Sampled: 05/08/2015 1000

Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7730.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1342			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1342				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		81 - 118
4-Bromofluorobenzene (Surr)	98		85 - 114
Dibromofluoromethane (Surr)	104		80 - 119
Toluene-d8 (Surr)	101		89 - 112

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54402-EB14-0515**

Lab Sample ID: 280-68970-6EB

Client Matrix: Water

Date Sampled: 05/07/2015 1740

Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7731.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1405			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1405				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	17		1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	10		1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Client Sample ID: **54402-EB14-0515**

Lab Sample ID: 280-68970-6EB

Client Matrix: Water

Date Sampled: 05/07/2015 1740

Date Received: 05/09/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z7731.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 1405			Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 1405				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		81 - 118
4-Bromofluorobenzene (Surr)	100		85 - 114
Dibromofluoromethane (Surr)	107		80 - 119
Toluene-d8 (Surr)	102		89 - 112

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-68970-1	54403-TB13-0515	106	102	104	100
280-68970-3	54400-MW46D-0515	107	108	99	100
280-68970-4	54401-MW46D-0515-DUP	105	108	102	97
280-68970-5	54402-EB15-0515	104	102	101	98
280-68970-6	54402-EB14-0515	107	105	102	100
MB 280-278072/6		107	104	105	100
LCS 280-278072/4		104	103	108	97

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	80-119
DCA = 1,2-Dichloroethane-d4 (Surr)	81-118
TOL = Toluene-d8 (Surr)	89-112
BFB = 4-Bromofluorobenzene (Surr)	85-114

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Method Blank - Batch: 280-278072

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-278072/6	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z7715.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 0801	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 0801				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.189	J	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Method Blank - Batch: 280-278072

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-278072/6	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z7715.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 0801	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 0801				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.589	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	81 - 118
4-Bromofluorobenzene (Surr)	100	85 - 114
Dibromofluoromethane (Surr)	107	80 - 119
Toluene-d8 (Surr)	105	89 - 112

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Lab Control Sample - Batch: 280-278072

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 280-278072/4	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z7714.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 0738	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 0738				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	5.00	5.25	105	78 - 124	
1,1,1-Trichloroethane	5.00	4.72	94	74 - 131	
1,1,2,2-Tetrachloroethane	5.00	4.73	95	71 - 121	
1,1,2-Trichloroethane	5.00	5.11	102	80 - 119	
1,1-Dichloroethane	5.00	4.69	94	77 - 125	
1,1-Dichloroethene	5.00	4.80	96	71 - 131	
1,1-Dichloropropene	5.00	5.17	103	79 - 125	
1,2,3-Trichlorobenzene	5.00	5.24	105	69 - 129	
1,2,3-Trichloropropane	5.00	4.69	94	73 - 122	
1,2,4-Trichlorobenzene	5.00	5.06	101	69 - 130	
1,2,4-Trimethylbenzene	5.00	4.57	91	76 - 124	
1,2-Dibromo-3-Chloropropane	5.00	5.33	107	62 - 128	
1,2-Dibromoethane	5.00	4.93	99	77 - 121	
1,2-Dichlorobenzene	5.00	5.25	105	80 - 119	
1,2-Dichloroethane	5.00	4.63	93	73 - 128	
1,2-Dichloropropane	5.00	4.67	93	78 - 122	
1,3,5-Trimethylbenzene	5.00	4.61	92	75 - 124	
1,3-Dichlorobenzene	5.00	5.11	102	80 - 119	
1,3-Dichloropropane	5.00	4.79	96	80 - 119	
1,4-Dichlorobenzene	5.00	5.43	109	79 - 118	
2,2-Dichloropropane	5.00	5.59	112	60 - 139	
2-Butanone (MEK)	20.0	19.7	99	56 - 143	
2-Chlorotoluene	5.00	5.04	101	79 - 122	M
2-Hexanone	20.0	18.7	93	57 - 139	
4-Chlorotoluene	5.00	4.79	96	78 - 122	
4-Methyl-2-pentanone (MIBK)	20.0	21.9	109	67 - 130	
Acetone	20.0	21.8	109	39 - 160	
Benzene	5.00	5.00	100	79 - 120	
Bromobenzene	5.00	4.96	99	80 - 120	
Bromochloromethane	5.00	5.31	106	78 - 123	
Bromodichloromethane	5.00	4.81	96	79 - 125	
Bromoform	5.00	5.26	105	66 - 130	
Bromomethane	5.00	5.24	105	53 - 141	
Carbon disulfide	5.00	4.90	98	64 - 133	
Carbon tetrachloride	5.00	4.89	98	72 - 136	
Chlorobenzene	5.00	5.03	101	82 - 118	
Chlorodibromomethane	5.00	5.27	105	74 - 126	
Chloroethane	5.00	5.05	101	60 - 138	
Chloroform	5.00	4.99	100	79 - 124	
Chloromethane	5.00	4.63	93	50 - 139	M
cis-1,2-Dichloroethene	5.00	4.90	98	78 - 123	
cis-1,3-Dichloropropene	5.00	4.95	99	75 - 124	
Dibromomethane	5.00	4.96	99	79 - 123	
Dichlorodifluoromethane	5.00	5.61	112	32 - 152	
Ethylbenzene	5.00	4.79	96	79 - 121	
Hexachlorobutadiene	5.00	5.16	103	66 - 134	

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Lab Control Sample - Batch: 280-278072

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 280-278072/4	Analysis Batch:	280-278072	Instrument ID:	VMS_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z7714.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/19/2015 0738	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/19/2015 0738				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Isopropylbenzene	5.00	4.63	93	72 - 131	
Methyl tert-butyl ether	5.00	4.87	97	71 - 124	J M
Methylene Chloride	5.00	5.48	110	74 - 124	
m-Xylene & p-Xylene	5.00	5.07	101	80 - 121	
Naphthalene	5.00	5.10	102	61 - 128	
n-Butylbenzene	5.00	4.74	95	75 - 128	
N-Propylbenzene	5.00	4.90	98	76 - 126	
o-Xylene	5.00	5.10	102	78 - 122	
p-Isopropyltoluene	5.00	4.71	94	77 - 127	
sec-Butylbenzene	5.00	5.17	103	77 - 126	
Styrene	5.00	5.01	100	78 - 123	
tert-Butyl alcohol	50.0	39.9	80	68 - 129	J
tert-Butylbenzene	5.00	4.74	95	78 - 124	
Tetrachloroethene	5.00	5.30	106	74 - 129	
Toluene	5.00	5.08	102	80 - 121	
trans-1,2-Dichloroethene	5.00	5.00	100	75 - 124	
trans-1,3-Dichloropropene	5.00	5.46	109	73 - 127	
Trichloroethene	5.00	5.02	100	79 - 123	
Trichlorofluoromethane	5.00	4.96	99	65 - 141	
Vinyl chloride	5.00	4.93	99	58 - 137	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	81 - 118
4-Bromofluorobenzene (Surr)	97	85 - 114
Dibromofluoromethane (Surr)	104	80 - 119
Toluene-d8 (Surr)	108	89 - 112

DATA REPORTING QUALIFIERS

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.

Client: GSI Environmental, Inc

Job Number: 280-68970-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-278072					
LCS 280-278072/4	Lab Control Sample	T	Water	8260B	
MB 280-278072/6	Method Blank	T	Water	8260B	
280-68970-1TB	54403-TB13-0515	T	Water	8260B	
280-68970-3	54400-MW46D-0515	T	Water	8260B	
280-68970-4FD	54401-MW46D-0515-DUP	T	Water	8260B	
280-68970-5EB	54402-EB15-0515	T	Water	8260B	
280-68970-6EB	54402-EB14-0515	T	Water	8260B	

Report Basis
T = Total

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Laboratory Chronicle

Lab ID: 280-68970-1 **Client ID: 54403-TB13-0515**

Sample Date/Time: 05/07/2015 00:00 Received Date/Time: 05/09/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-68970-A-1		280-278072		05/19/2015 12:34	1	TAL DEN	MRM
A:8260B	280-68970-A-1		280-278072		05/19/2015 12:34	1	TAL DEN	MRM

Lab ID: 280-68970-3 **Client ID: 54400-MW46D-0515**

Sample Date/Time: 05/08/2015 08:40 Received Date/Time: 05/09/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-68970-C-3		280-278072		05/19/2015 12:57	1	TAL DEN	MRM
A:8260B	280-68970-C-3		280-278072		05/19/2015 12:57	1	TAL DEN	MRM

Lab ID: 280-68970-4 **Client ID: 54401-MW46D-0515-DUP**

Sample Date/Time: 05/08/2015 08:40 Received Date/Time: 05/09/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-68970-B-4		280-278072		05/19/2015 13:20	1	TAL DEN	MRM
A:8260B	280-68970-B-4		280-278072		05/19/2015 13:20	1	TAL DEN	MRM

Lab ID: 280-68970-5 **Client ID: 54402-EB15-0515**

Sample Date/Time: 05/08/2015 10:00 Received Date/Time: 05/09/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-68970-C-5		280-278072		05/19/2015 13:42	1	TAL DEN	MRM
A:8260B	280-68970-C-5		280-278072		05/19/2015 13:42	1	TAL DEN	MRM

Lab ID: 280-68970-6 **Client ID: 54402-EB14-0515**

Sample Date/Time: 05/07/2015 17:40 Received Date/Time: 05/09/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-68970-A-6		280-278072		05/19/2015 14:05	1	TAL DEN	MRM
A:8260B	280-68970-A-6		280-278072		05/19/2015 14:05	1	TAL DEN	MRM

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-278072/6		280-278072		05/19/2015 08:01	1	TAL DEN	MRM
A:8260B	MB 280-278072/6		280-278072		05/19/2015 08:01	1	TAL DEN	MRM

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-278072/4		280-278072		05/19/2015 07:38	1	TAL DEN	MRM
A:8260B	LCS 280-278072/4		280-278072		05/19/2015 07:38	1	TAL DEN	MRM

Lab References:
TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-2cleve+AVA_00009	05/31/15	03/02/15	P&T Methanol, Lot 85233	20 mL	MV-567643_00008	400 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-568720_00006	405 uL	Acrolein	399.938 ug/mL
					MV-569724_00001	320 uL	Vinyl acetate	80 ug/mL
.MV-567643_00008	02/29/16	RESTEK, Lot A093368			(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
.MV-568720_00006	05/31/15	RESTEK, Lot A0108734			(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569724_00001	07/31/15	RESTEK, Lot A0108225			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
MV-567649-D_00001	02/28/18	RESTEK, Lot A093504			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-ARCH SS A_00042	09/30/15	03/30/15	P&T Methanol, Lot 85233	50 mL	MV-567650_00020	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00020	08/31/19	Restek, Lot A0105143			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-Gas/Ket A_00032	10/03/15	04/03/15	P&T Methanol, Lot 85233	10 mL	MV-567642_00018	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645_00019	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Dichlorofluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
					MV-567648_00029	800 uL	Cyclohexanone	1600 ug/mL
.MV-567642_00018	02/29/16	RESTEK, Lot A093365			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645_00019	09/30/16	RESTEK, Lot A0105755			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.MV-567648_00029	12/31/17	RESTEK, Lot A0108012			(Purchased Reagent)		Cyclohexanone	20000 ug/mL
MV-Gas/Ket A_00033	11/14/15	05/14/15	P&T Methanol, Lot 85233	10 mL	MV-567642_00018	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MV-567645_00019	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642_00018	02/29/16	RESTEK, Lot A093365			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645_00019	09/30/16	RESTEK, Lot A0105755			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-Gas/Ket B_00019	10/29/15	04/29/15	P&T Methanol, Lot 85233	10 mL	MV-567642.sec_00016	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645.sec_00017	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642.sec_00016	02/28/17	RESTEK, Lot A0101295			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645.sec_00017	11/30/15	RESTEK, Lot A099261			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-Main A_00022	07/16/15	01/16/15	P&T Methanol, Lot 62345	25 mL	MV-567641_00014	500 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034_00010	1000 uL	1-Chlorohexane	40 ug/mL
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00014	02/29/16	RESTEK, Lot A093581			(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034_00010	01/31/16	RESTEK, Lot A0104827			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00009	05/28/15	11/28/14	P&T Methanol, Lot 62345	20 mL	MV-567641.sec_00010	400 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MV-567641.sec_00010	02/29/16		RESTEK, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
MV-Supp A_00011	06/30/15	02/03/15	P&T Methanol, Lot 85233	10 mL	MV-568036_00007	400 uL	cis-1,4-Dichloro-2-butene	40 ug/mL
					mv-569725_00001	160 uL	1,2,3-Trimethylbenzene	40 ug/mL
							2-Chloro-1,3-butadiene	40 ug/mL
							2-Nitropropane	80 ug/mL
							Ethyl acetate	80 ug/mL
							Methacrylonitrile	400 ug/mL
							Methyl methacrylate	80 ug/mL
							n-Butanol	1000 ug/mL
					mv-569728_00001	200 uL	Acetonitrile	500 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
.MV-568036_00007	12/31/15	RESTEK, Lot A0104018			(Purchased Reagent)		cis-1,4-Dichloro-2-butene	1000 ug/mL
.mv-569725_00001	07/31/15	Restek, Lot A0108219			(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Ethyl acetate	5000 ug/mL
							Methacrylonitrile	25000 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butanol	62500 ug/mL
.mv-569728_00001	01/31/17	RESTEK, Lot A0108216			(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL

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

www.restek.com

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641.sec – 0001D **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether)	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 60-29-7.SEC		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 76-13-1.SEC		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed
3	1,1-Dichloroethene	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 75-35-4.SEC		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/- 116.2756	µg/mL	Gravimetric
	CAS # 75-65-0.SEC		+/- 442.5291	µg/mL	Unstressed
	Purity 99%		+/- 444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/- 11.6284	µg/mL	Gravimetric
	CAS # 74-88-4.SEC		+/- 44.2540	µg/mL	Unstressed
	Purity 97%		+/- 44.4344	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/- 11.6281	µg/mL	Gravimetric
	CAS # 107-05-1.SEC		+/- 44.2527	µg/mL	Unstressed
	Purity 98%		+/- 44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 79-20-9.SEC		+/- 221.2646	µg/mL	Unstressed
	Purity 99%		+/- 222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/- 11.6281	µg/mL	Gravimetric
	CAS # 75-15-0.SEC		+/- 44.2527	µg/mL	Unstressed
	Purity 98%		+/- 44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 75-09-2.SEC		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1.SEC			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 110-54-3.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-34-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 594-20-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 156-60-5.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
17	Chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1.SEC			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9.SEC			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-82-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
23	1,1-Dichloropropene	2,010.5	µg/mL	+/-	11.6890	µg/mL	Gravimetric
	CAS # 563-58-6.SEC			+/-	44.4847	µg/mL	Unstressed
	Purity 98%			+/-	44.6661	µg/mL	Stressed
24	Carbon tetrachloride	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 56-23-5.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
25	n-Heptane (C7)	2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric
	CAS # 142-82-5.SEC			+/-	44.2553	µg/mL	Unstressed
	Purity 99%			+/-	44.4357	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 79-01-6.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1.SEC			+/-	885.0582	µg/mL	Unstressed
	Purity 99%			+/-	888.6665	µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
33	Bromodichloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric
	CAS # 75-27-4.SEC			+/-	44.2562	µg/mL	Unstressed
	Purity 97%			+/-	44.4366	µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
41	Dibromochloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric
	CAS # 124-48-1.SEC			+/-	44.2562	µg/mL	Unstressed
	Purity 97%			+/-	44.4366	µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3.SEC			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3.SEC			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	Bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 96-18-4.SEC			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 110-57-6.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-63-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)	2,000.1	µg/mL	+/-	11.6285	µg/mL	Gravimetric
	CAS # 99-87-6.SEC			+/-	44.2545	µg/mL	Unstressed
	Purity 96%			+/-	44.4349	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 96-12-8.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

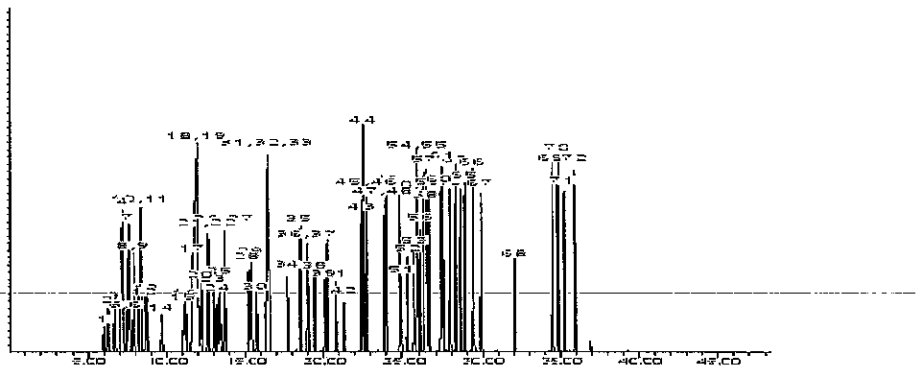
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** 1127510105

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

received 6/2/14

Catalog No. : 567641 — 00014 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether)	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 60-29-7		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,999.9 µg/mL	+/- 11.6279	µg/mL	Gravimetric
	CAS # 76-13-1		+/- 44.2519	µg/mL	Unstressed
	Purity 97%		+/- 44.4323	µg/mL	Stressed
3	1,1-dichloroethene	2,000.0 µg/mL	+/- 11.6281	µg/mL	Gravimetric
	CAS # 75-35-4		+/- 44.2527	µg/mL	Unstressed
	Purity 98%		+/- 44.4331	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/- 116.2756	µg/mL	Gravimetric
	CAS # 75-65-0		+/- 442.5291	µg/mL	Unstressed
	Purity 99%		+/- 444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 74-88-4		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/- 11.6281	µg/mL	Gravimetric
	CAS # 107-05-1		+/- 44.2527	µg/mL	Unstressed
	Purity 98%		+/- 44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 79-20-9		+/- 221.2646	µg/mL	Unstressed
	Purity 99%		+/- 222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/- 11.6281	µg/mL	Gravimetric
	CAS # 75-15-0		+/- 44.2527	µg/mL	Unstressed
	Purity 98%		+/- 44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 75-09-2		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1			+/-	885.0582	µg/mL	Unstressed
	Purity 99%			+/-	888.6665	µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

6x/mL
REC 4/20/15 GM

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567642.SEC **Lot No.:** A0101295

Description : 8260 List 1 / Std #2 Ketones

8260/624 Ketones Standard 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone		10,015.2 µg/mL	+/- 58.6412	µg/mL	Gravimetric
	CAS # 67-64-1.SEC	(Lot 0902033)		+/- 533.0320	µg/mL	Unstressed
	Purity 99%			+/- 533.6197	µg/mL	Stressed
2	2-Butanone (MEK)		10,010.0 µg/mL	+/- 58.6108	µg/mL	Gravimetric
	CAS # 78-93-3.SEC	(Lot VEGGI)		+/- 532.7553	µg/mL	Unstressed
	Purity 99%			+/- 533.3427	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		10,012.4 µg/mL	+/- 58.6248	µg/mL	Gravimetric
	CAS # 108-10-1.SEC	(Lot E29T040)		+/- 532.8830	µg/mL	Unstressed
	Purity 99%			+/- 533.4706	µg/mL	Stressed
4	2-Hexanone		10,016.4 µg/mL	+/- 58.6482	µg/mL	Gravimetric
	CAS # 591-78-6.SEC	(Lot ZSVCD-FF)		+/- 533.0959	µg/mL	Unstressed
	Purity 99%			+/- 533.6837	µg/mL	Stressed

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

6x/mL
REC 1/6/15
Gm

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,000.0	µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 67-64-1			+/-	798.6896	µg/mL	Unstressed
	Purity 99%			+/-	799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0	µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 78-93-3			+/-	798.6896	µg/mL	Unstressed
	Purity 99%			+/-	799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0	µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 108-10-1			+/-	798.6896	µg/mL	Unstressed
	Purity 99%			+/-	799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0	µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 591-78-6			+/-	798.6896	µg/mL	Unstressed
	Purity 99%			+/-	799.0807	µg/mL	Stressed

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

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

www.restek.com

2x/mL
REC 10/23/13
Gm

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567643 **Lot No.:** A093368

Description : 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

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

Tech Tips:

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

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

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567645.sec — 00017 **Lot No.:** A099261

Description : 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : November 30, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)	2,002.2 µg/mL	+/- 16.7616	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/- 21.2987	µg/mL	Unstressed
	Purity 99%		+/- 24.7536	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/- 15.8216	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 21.2729	µg/mL	Unstressed
	Purity 99%		+/- 24.7262	µg/mL	Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/- 14.6785	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 21.2759	µg/mL	Unstressed
	Purity 99%		+/- 24.7329	µg/mL	Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/- 16.7307	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 21.3051	µg/mL	Unstressed
	Purity 99%		+/- 24.7611	µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/- 16.2313	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 21.2671	µg/mL	Unstressed
	Purity 99%		+/- 24.7183	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/- 14.6721	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 21.2666	µg/mL	Unstressed
	Purity 99%		+/- 24.7221	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/- 15.1665	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 21.3071	µg/mL	Unstressed
	Purity 99%		+/- 24.7678	µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/- 16.2157	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/- 21.2894	µg/mL	Unstressed
	Purity 99%		+/- 24.7442	µg/mL	Stressed

2x/mL REC 1/6/15

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567645 **Lot No.:** A0105755

Description : 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : September 30, 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)		1,996.9 µg/mL	+/- 16.4920	µg/mL	Gravimetric
	CAS # 75-71-8	(Lot Q16A-86)		+/- 25.3820	µg/mL	Unstressed
	Purity 99%			+/- 28.4359	µg/mL	Stressed
2	Chloromethane (methyl chloride)		2,003.6 µg/mL	+/- 13.5945	µg/mL	Gravimetric
	CAS # 74-87-3	(Lot SHBC8470V)		+/- 23.6556	µg/mL	Unstressed
	Purity 99%			+/- 26.9268	µg/mL	Stressed
3	Vinyl chloride		2,001.1 µg/mL	+/- 27.3546	µg/mL	Gravimetric
	CAS # 75-01-4	(Lot 17542)		+/- 33.4976	µg/mL	Unstressed
	Purity 99%			+/- 35.8765	µg/mL	Stressed
4	1,3-Butadiene		1,999.9 µg/mL	+/- 23.4547	µg/mL	Gravimetric
	CAS # 106-99-0	(Lot SHBD5808V)		+/- 30.3891	µg/mL	Unstressed
	Purity 99%			+/- 32.9901	µg/mL	Stressed
5	Bromomethane (methyl bromide)		1,998.7 µg/mL	+/- 30.0266	µg/mL	Gravimetric
	CAS # 74-83-9	(Lot 101604)		+/- 35.7004	µg/mL	Unstressed
	Purity 99%			+/- 37.9363	µg/mL	Stressed
6	Chloroethane (ethyl chloride)		2,000.1 µg/mL	+/- 18.0935	µg/mL	Gravimetric
	CAS # 75-00-3	(Lot SHBD1717V)		+/- 26.4730	µg/mL	Unstressed
	Purity 99%			+/- 29.4228	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)		1,999.1 µg/mL	+/- 17.9677	µg/mL	Gravimetric
	CAS # 75-43-4	(Lot Q9B-58)		+/- 26.3801	µg/mL	Unstressed
	Purity 99%			+/- 29.3364	µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)		2,001.1 µg/mL	+/- 24.2299	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBD5121V)		+/- 30.9989	µg/mL	Unstressed
	Purity 99%			+/- 33.5557	µg/mL	Stressed

3x/mL REC 2/24/15
Gm

CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567648 **Lot No.:** A0108012

Description : 8260 List 2 / Std #3 Cyclohexanone

8260 List 2 / Std #3 Cyclohexanone 20,000 ug/ml, Water, 1 ml/ampul

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

Expiration Date : December 31, 2017 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Cyclohexanone		20,022.0	µg/mL	+/-	117.2332	µg/mL	Gravimetric
	CAS # 108-94-1	(Lot MKBP7869V)			+/-	1,065.6170	µg/mL	Unstressed
	Purity 99%				+/-	1,066.7919	µg/mL	Stressed

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

5 x 15mL
REC 12/29/14

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0105143

Description : 8260 Surrogate Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Dibromofluoromethane		2,512.4	µg/mL	+/-	14.6073	µg/mL	Gravimetric
	CAS # 1868-53-7	(Lot 022013)			+/-	28.3309	µg/mL	Unstressed
	Purity 99%				+/-	32.6007	µg/mL	Stressed
2	1,2-Dichloroethane-d4		2,506.0	µg/mL	+/-	14.5701	µg/mL	Gravimetric
	CAS # 17060-07-0	(Lot 14C-191)			+/-	28.2587	µg/mL	Unstressed
	Purity 99%				+/-	32.5176	µg/mL	Stressed
3	Toluene-d8		2,499.8	µg/mL	+/-	14.5341	µg/mL	Gravimetric
	CAS # 2037-26-5	(Lot 14C-176)			+/-	28.1888	µg/mL	Unstressed
	Purity 99%				+/-	32.4372	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)		2,500.4	µg/mL	+/-	14.5375	µg/mL	Gravimetric
	CAS # 460-00-4	(Lot 20401KOV)			+/-	28.1956	µg/mL	Unstressed
	Purity 99%				+/-	32.4450	µg/mL	Stressed

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

8x/mL
REC 8/1/14

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Gravimetric Certificate

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568034 **Lot No.:** A0104827

Description : Denver Main Add Ons Standard

Denver Main Add Ons Standard 1,000-30,000 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : January 31, 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1-Chlorohexane	1,000.0 µg/mL	+/- 10.0737 µg/mL	Gravimetric
	CAS # 544-10-5 (Lot 05107LK)		+/- 53.8499 µg/mL	Unstressed
	Purity 99%		+/- 53.9079 µg/mL	Stressed
2	2-Butanol (sec-butyl alcohol)	30,020.0 µg/mL	+/- 277.8107 µg/mL	Gravimetric
	CAS # 78-92-2 (Lot 50296KKV)		+/- 1,612.1523 µg/mL	Unstressed
	Purity 99%		+/- 1,613.8982 µg/mL	Stressed
3	2-Pentanone	4,004.0 µg/mL	+/- 37.2350 µg/mL	Gravimetric
	CAS # 107-87-9 (Lot 1399841)		+/- 215.0566 µg/mL	Unstressed
	Purity 99%		+/- 215.2894 µg/mL	Stressed

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

F. Joseph Tallon - Mix Technician **Date Mixed:** 22-Jul-2014 **Balance:** B251644995

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

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Gravimetric Certificate

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568036 — 0007 **Lot No.:** A0104018

Description : Denver Supp Add Ons Standard #2

Denver Supp Add Ons Standard #2 1,000 µg/ml, P&T Methanol, 1 ml/ampul

received 6/18/14

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

Expiration Date : December 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Component #	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	cis-1,4-Dichloro-2-butene **CAS #** 1476-11-5 **Purity** 97%	(Lot SHBD5650V)	1,001.0 µg/mL	+/- 10.0842 µg/mL +/- 13.9728 µg/mL +/- 15.3799 µg/mL		Gravimetric Unstressed Stressed
2	Tetrahydrothiophene **CAS #** 110-01-0 **Purity** 99%	(Lot 08905ED)	1,000.0 µg/mL	+/- 10.0737 µg/mL +/- 13.9583 µg/mL +/- 15.3639 µg/mL		Gravimetric Unstressed Stressed

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

Kendra Swope - Mix Technician **Date Mixed:** 13-Jun-2014 **Balance:** 1125113331

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

Rec 3/2/15 GM
2x 1mL

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0108734

Description : 8260 List 1/Std #5 Acrolein High

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

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

Expiration Date : May 31, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound			Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acrolein			19,890.0 µg/mL	+/-	116.4603	µg/mL	Gravimetric
	CAS #	107-02-8	(Lot 150115JLM)		+/-	637.7359	µg/mL	Unstressed
	Purity	99%			+/-	741.2982	µg/mL	Stressed

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

4x1mL
REC 2/23/15 GM

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724 **Lot No.:** A0108225

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

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

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

Expiration Date : July 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate **CAS #** 108-05-4 (Lot STBC8935V) **Purity** 99%	5,000.0 µg/mL	+/- 29.3428 µg/mL +/- 266.1189 µg/mL +/- 266.4123 µg/mL		Gravimetric Unstressed Stressed

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

Tech Tips:

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

4x1mL
REC 2/3/15 Cm

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569725 **Lot No.:** A0108219

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

8260 List 2/ Std #1 Additions (2015) 2500-62,500 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : July 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol)	25,013.0 µg/mL	+/- 146.4566 µg/mL	Gravimetric
	CAS # 67-63-0 (Lot SHBC9345V)		+/- 1,331.2495 µg/mL	Unstressed
	Purity 99%		+/- 1,332.7173 µg/mL	Stressed
2	Chloroprene (2-chloro-1,3-butadiene)	2,500.0 µg/mL	+/- 33.4403 µg/mL	Gravimetric
	CAS # 126-99-8 (Lot 140611JLM)		+/- 136.4105 µg/mL	Unstressed
	Purity 99%		+/- 136.5536 µg/mL	Stressed
3	Ethyl acetate	5,001.5 µg/mL	+/- 29.2849 µg/mL	Gravimetric
	CAS # 141-78-6 (Lot SHBF1248V)		+/- 266.1914 µg/mL	Unstressed
	Purity 99%		+/- 266.4849 µg/mL	Stressed
4	Methacrylonitrile	25,011.0 µg/mL	+/- 146.4449 µg/mL	Gravimetric
	CAS # 126-98-7 (Lot 1012014)		+/- 1,331.1430 µg/mL	Unstressed
	Purity 99%		+/- 1,332.6108 µg/mL	Stressed
5	2,2,4-Trimethylpentane (isooctane)	2,505.5 µg/mL	+/- 14.7037 µg/mL	Gravimetric
	CAS # 540-84-1 (Lot SHBB2470V)		+/- 133.3522 µg/mL	Unstressed
	Purity 99%		+/- 133.4992 µg/mL	Stressed
6	1-Butanol	62,530.5 µg/mL	+/- 366.1109 µg/mL	Gravimetric
	CAS # 71-36-3 (Lot SHBF1679V)		+/- 3,328.0152 µg/mL	Unstressed
	Purity 99%		+/- 3,331.6847 µg/mL	Stressed
7	1,4-Difluorobenzene	2,514.0 µg/mL	+/- 14.7536 µg/mL	Gravimetric
	CAS # 540-36-3 (Lot MKBN8571V)		+/- 133.8046 µg/mL	Unstressed
	Purity 99%		+/- 133.9521 µg/mL	Stressed

8	Ethyl acrylate		2,508.0	µg/mL	+/-	14.7183	µg/mL	Gravimetric
	CAS # 140-88-5	(Lot 10129902)			+/-	133.4852	µg/mL	Unstressed
	Purity 99%				+/-	133.6324	µg/mL	Stressed
9	Methyl methacrylate		5,005.5	µg/mL	+/-	29.3083	µg/mL	Gravimetric
	CAS # 80-62-6	(Lot STBD4840V)			+/-	266.4042	µg/mL	Unstressed
	Purity 99%				+/-	266.6980	µg/mL	Stressed
10	2-Nitropropane		5,008.6	µg/mL	+/-	29.3264	µg/mL	Gravimetric
	CAS # 79-46-9	(Lot BCBJ4343V)			+/-	266.5690	µg/mL	Unstressed
	Purity 97%				+/-	266.8629	µg/mL	Stressed
11	Butyl acetate		2,503.5	µg/mL	+/-	14.6919	µg/mL	Gravimetric
	CAS # 123-86-4	(Lot SHBF4442V)			+/-	133.2457	µg/mL	Unstressed
	Purity 99%				+/-	133.3926	µg/mL	Stressed
12	1-Chlorohexane		2,503.4	µg/mL	+/-	14.6914	µg/mL	Gravimetric
	CAS # 544-10-5	(Lot 05107LK)			+/-	133.2409	µg/mL	Unstressed
	Purity 98%				+/-	133.3878	µg/mL	Stressed
13	1,2,3-Trimethylbenzene		2,506.0	µg/mL	+/-	14.7066	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 877605-14)			+/-	133.3785	µg/mL	Unstressed
	Purity 97%				+/-	133.5256	µg/mL	Stressed
14	Benzyl chloride		2,501.0	µg/mL	+/-	14.6773	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot SHBB7346V)			+/-	133.1127	µg/mL	Unstressed
	Purity 99%				+/-	133.2594	µg/mL	Stressed
15	1,3,5-Trichlorobenzene		2,504.5	µg/mL	+/-	14.6978	µg/mL	Gravimetric
	CAS # 108-70-3	(Lot 11319AS)			+/-	133.2989	µg/mL	Unstressed
	Purity 99%				+/-	133.4459	µg/mL	Stressed

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

4x/mL
REC 2/3/15 Gne

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569728 **Lot No.:** A0108216

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Ethanol		100,006.7 µg/mL	+/- 585.5308 µg/mL	Gravimetric
	CAS # 64-17-5	(Lot PG0219)		+/- 3,484.8988 µg/mL	Unstressed
	Purity 99%			+/- 3,604.3075 µg/mL	Stressed
2	Acetonitrile		25,004.7 µg/mL	+/- 146.4078 µg/mL	Gravimetric
	CAS # 75-05-8	(Lot SHBB3177V)		+/- 871.3305 µg/mL	Unstressed
	Purity 99%			+/- 901.1862 µg/mL	Stressed
3	Diisopropyl ether (DIPE)		2,501.3 µg/mL	+/- 14.6792 µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBB6268V)		+/- 87.1689 µg/mL	Unstressed
	Purity 99%			+/- 90.1553 µg/mL	Stressed
4	Ethyl-tert-butyl ether (ETBE)		2,500.7 µg/mL	+/- 14.6753 µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKBR1623V)		+/- 87.1456 µg/mL	Unstressed
	Purity 99%			+/- 90.1313 µg/mL	Stressed
5	Propionitrile		25,001.3 µg/mL	+/- 146.3883 µg/mL	Gravimetric
	CAS # 107-12-0	(Lot BCBK0700V)		+/- 871.2144 µg/mL	Unstressed
	Purity 99%			+/- 901.0661 µg/mL	Stressed
6	tert-Amyl alcohol		25,006.0 µg/mL	+/- 146.4156 µg/mL	Gravimetric
	CAS # 75-85-4	(Lot STBB1898V)		+/- 871.3770 µg/mL	Unstressed
	Purity 99%			+/- 901.2343 µg/mL	Stressed
7	tert-Amyl methyl ether (TAME)		2,502.0 µg/mL	+/- 14.6831 µg/mL	Gravimetric
	CAS # 994-05-8	(Lot OS1028/4V)		+/- 87.1921 µg/mL	Unstressed
	Purity 99%			+/- 90.1793 µg/mL	Stressed

Certification Summary

Client: GSI Environmental, Inc
Project/Site: GSI - McConnell AFB (SWMU207)

TestAmerica Job ID: 280-68970-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-13-8
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 (75. ID: 0.53(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
54403-TB13-0515	280-68970-1	106	102	104	100
54400-MW46D-0515	280-68970-3	107	108	99	100
54401-MW46D-0515-DUP	280-68970-4	105	108	102	97
54402-EB15-0515	280-68970-5	104	102	101	98
54402-EB14-0515	280-68970-6	107	105	102	100
	MB 280-278072/6	107	104	105	100
	LCS 280-278072/4	104	103	108	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-119
DCA = 1,2-Dichloroethane-d4 (Surr)	81-118
TOL = Toluene-d8 (Surr)	89-112
BFB = 4-Bromofluorobenzene (Surr)	85-114

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z7714.D

Lab ID: LCS 280-278072/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.25	105	78-124	
1,1,1-Trichloroethane	5.00	4.72	94	74-131	
1,1,2,2-Tetrachloroethane	5.00	4.73	95	71-121	
1,1,2-Trichloroethane	5.00	5.11	102	80-119	
1,1-Dichloroethane	5.00	4.69	94	77-125	
1,1-Dichloroethene	5.00	4.80	96	71-131	
1,1-Dichloropropene	5.00	5.17	103	79-125	
1,2,3-Trichlorobenzene	5.00	5.24	105	69-129	
1,2,3-Trichloropropane	5.00	4.69	94	73-122	
1,2,4-Trichlorobenzene	5.00	5.06	101	69-130	
1,2,4-Trimethylbenzene	5.00	4.57	91	76-124	
1,2-Dibromo-3-Chloropropane	5.00	5.33	107	62-128	
1,2-Dibromoethane	5.00	4.93	99	77-121	
1,2-Dichlorobenzene	5.00	5.25	105	80-119	
1,2-Dichloroethane	5.00	4.63	93	73-128	
1,2-Dichloropropane	5.00	4.67	93	78-122	
1,3,5-Trimethylbenzene	5.00	4.61	92	75-124	
1,3-Dichlorobenzene	5.00	5.11	102	80-119	
1,3-Dichloropropane	5.00	4.79	96	80-119	
1,4-Dichlorobenzene	5.00	5.43	109	79-118	
2,2-Dichloropropane	5.00	5.59	112	60-139	
2-Butanone (MEK)	20.0	19.7	99	56-143	
2-Chlorotoluene	5.00	5.04	101	79-122	M
2-Hexanone	20.0	18.7	93	57-139	
4-Chlorotoluene	5.00	4.79	96	78-122	
4-Methyl-2-pentanone (MIBK)	20.0	21.9	109	67-130	
Acetone	20.0	21.8	109	39-160	
Benzene	5.00	5.00	100	79-120	
Bromobenzene	5.00	4.96	99	80-120	
Bromochloromethane	5.00	5.31	106	78-123	
Bromodichloromethane	5.00	4.81	96	79-125	
Bromoform	5.00	5.26	105	66-130	
Bromomethane	5.00	5.24	105	53-141	
Carbon disulfide	5.00	4.90	98	64-133	
Carbon tetrachloride	5.00	4.89	98	72-136	
Chlorobenzene	5.00	5.03	101	82-118	
Chlorodibromomethane	5.00	5.27	105	74-126	
Chloroethane	5.00	5.05	101	60-138	
Chloroform	5.00	4.99	100	79-124	
Chloromethane	5.00	4.63	93	50-139	M
cis-1,2-Dichloroethene	5.00	4.90	98	78-123	
cis-1,3-Dichloropropene	5.00	4.95	99	75-124	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z7714.D

Lab ID: LCS 280-278072/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	5.00	4.96	99	79-123	
Dichlorodifluoromethane	5.00	5.61	112	32-152	
Ethylbenzene	5.00	4.79	96	79-121	
Hexachlorobutadiene	5.00	5.16	103	66-134	
Isopropylbenzene	5.00	4.63	93	72-131	
Methyl tert-butyl ether	5.00	4.87 J	97	71-124	M
Methylene Chloride	5.00	5.48	110	74-124	
m-Xylene & p-Xylene	5.00	5.07	101	80-121	
Naphthalene	5.00	5.10	102	61-128	
n-Butylbenzene	5.00	4.74	95	75-128	
N-Propylbenzene	5.00	4.90	98	76-126	
o-Xylene	5.00	5.10	102	78-122	
p-Isopropyltoluene	5.00	4.71	94	77-127	
sec-Butylbenzene	5.00	5.17	103	77-126	
Styrene	5.00	5.01	100	78-123	
tert-Butyl alcohol	50.0	39.9 J	80	68-129	
tert-Butylbenzene	5.00	4.74	95	78-124	
Tetrachloroethene	5.00	5.30	106	74-129	
Toluene	5.00	5.08	102	80-121	
trans-1,2-Dichloroethene	5.00	5.00	100	75-124	
trans-1,3-Dichloropropene	5.00	5.46	109	73-127	
Trichloroethene	5.00	5.02	100	79-123	
Trichlorofluoromethane	5.00	4.96	99	65-141	
Vinyl chloride	5.00	4.93	99	58-137	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab File ID: Z7715.D Lab Sample ID: MB 280-278072/6

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

Instrument ID: VMS_Z Date Analyzed: 05/19/2015 08:01

GC Column: DB-624 (75.53) ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-278072/4	Z7714.D	05/19/2015 07:38
54403-TB13-0515	280-68970-1	Z7727.D	05/19/2015 12:34
54400-MW46D-0515	280-68970-3	Z7728.D	05/19/2015 12:57
54401-MW46D-0515-DUP	280-68970-4	Z7729.D	05/19/2015 13:20
54402-EB15-0515	280-68970-5	Z7730.D	05/19/2015 13:42
54402-EB14-0515	280-68970-6	Z7731.D	05/19/2015 14:05

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab File ID: Z6760.D BFB Injection Date: 04/27/2015

Instrument ID: VMS_Z BFB Injection Time: 06:31

Analysis Batch No.: 274661

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.3	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	65.6	
175	5.0 - 9.0 % of mass 174	5.0	(7.6)1
176	95.0 - 101.0 % of mass 174	65.3	(99.5)1
177	5.0 - 9.0 % of mass 176	4.6	(7.0)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-274661/18	Z6773.D	04/27/2015	11:28
	IC 280-274661/19	Z6774.D	04/27/2015	11:51
	IC 280-274661/20	Z6775.D	04/27/2015	12:13
	ICIS 280-274661/21	Z6776.D	04/27/2015	12:36
	IC 280-274661/22	Z6777.D	04/27/2015	12:59
	IC 280-274661/23	Z6778.D	04/27/2015	13:21
	ICV 280-274661/24	Z6780.D	04/27/2015	14:12

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab File ID: Z7568.D BFB Injection Date: 05/14/2015

Instrument ID: VMS_Z BFB Injection Time: 07:49

Analysis Batch No.: 277378

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.0	
75	30.0 - 60.0 % of mass 95	44.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	74.2	
175	5.0 - 9.0 % of mass 174	5.5	(7.5)1
176	95.0 - 101.0 % of mass 174	73.3	(98.8)1
177	5.0 - 9.0 % of mass 176	5.0	(6.8)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-277378/9	Z7570.D	05/14/2015	08:19
	IC 280-277378/10	Z7571.D	05/14/2015	08:42
	IC 280-277378/11	Z7572.D	05/14/2015	09:05
	IC 280-277378/12	Z7573.D	05/14/2015	09:28
	IC 280-277378/13	Z7574.D	05/14/2015	09:50
	IC 280-277378/14	Z7575.D	05/14/2015	10:13
	IC 280-277378/15	Z7576.D	05/14/2015	10:35
	ICV 280-277378/16	Z7578.D	05/14/2015	11:21

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab File ID: Z7647.D BFB Injection Date: 05/18/2015

Instrument ID: VMS_Z BFB Injection Time: 07:01

Analysis Batch No.: 277857

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.5	
75	30.0 - 60.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	80.1	
175	5.0 - 9.0 % of mass 174	6.0	(7.4)1
176	95.0 - 101.0 % of mass 174	78.9	(98.5)1
177	5.0 - 9.0 % of mass 176	6.4	(8.2)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-277857/11	Z7657.D	05/18/2015	10:39
	IC 280-277857/12	Z7658.D	05/18/2015	11:02
	IC 280-277857/13	Z7659.D	05/18/2015	11:25
	IC 280-277857/14	Z7660.D	05/18/2015	11:47
	IC 280-277857/15	Z7661.D	05/18/2015	12:10
	ICV 280-277857/16	Z7662.D	05/18/2015	12:32

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab File ID: Z7711.D BFB Injection Date: 05/19/2015

Instrument ID: VMS_Z BFB Injection Time: 06:46

Analysis Batch No.: 278072

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	45.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.2	(7.5)1
176	95.0 - 101.0 % of mass 174	82.5	(99.7)1
177	5.0 - 9.0 % of mass 176	6.7	(8.1)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-278072/2	Z7712.D	05/19/2015	06:53
	CCV 280-278072/3	Z7713.D	05/19/2015	07:15
	LCS 280-278072/4	Z7714.D	05/19/2015	07:38
	MB 280-278072/6	Z7715.D	05/19/2015	08:01
54403-TB13-0515	280-68970-1	Z7727.D	05/19/2015	12:34
54400-MW46D-0515	280-68970-3	Z7728.D	05/19/2015	12:57
54401-MW46D-0515-DUP	280-68970-4	Z7729.D	05/19/2015	13:20
54402-EB15-0515	280-68970-5	Z7730.D	05/19/2015	13:42
54402-EB14-0515	280-68970-6	Z7731.D	05/19/2015	14:05
	CCVC 280-278072/26	Z7732.D	05/19/2015	14:28

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Sample No.: ICIS 280-274661/21 Date Analyzed: 04/27/2015 12:36

Instrument ID: VMS_Z GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): Z6776.D Heated Purge: (Y/N) N

Calibration ID: 22133

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		129478	3.49	718308	6.38	168188	11.01
UPPER LIMIT		258956	3.99	1436616	6.88	336376	11.51
LOWER LIMIT		64739	2.99	359154	5.88	84094	10.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-274661/24		125414	3.47	744177	6.38	174677	11.01
ICV 280-277378/16		120219	3.49	729435	6.38	172126	11.02
ICV 280-277857/16		115458	3.48	623681	6.37	162243	11.00
CCV 280-278072/2		114189	3.49	601427	6.40	152466	11.04
CCV 280-278072/3		110103	3.49	599449	6.40	157451	11.04
LCS 280-278072/4		109567	3.50	599119	6.39	150696	11.02
MB 280-278072/6		115321	3.50	607166	6.39	159634	11.02
280-68970-1	54403-TB13-0515	98952	3.49	573646	6.38	150632	11.03
280-68970-3	54400-MW46D-0515	97147	3.49	522251	6.37	137958	11.02
280-68970-4	54401-MW46D-0515-DUP	84727	3.49	507984	6.37	132720	11.02
280-68970-5	54402-EB15-0515	89916	3.49	547114	6.38	145095	11.02
280-68970-6	54402-EB14-0515	97774	3.51	550463	6.38	146588	11.02
CCVC 280-278072/26		101123	3.50	563285	6.39	143698	11.02

TBA = TBA-d9 (IS)
FB = Fluorobenzene
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260B

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Sample No.: ICIS 280-274661/21 Date Analyzed: 04/27/2015 12:36

Instrument ID: VMS_Z GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): Z6776.D Heated Purge: (Y/N) N

Calibration ID: 22133

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		301653	15.11				
UPPER LIMIT		603306	15.61				
LOWER LIMIT		150827	14.61				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-274661/24		309431	15.11				
ICV 280-277378/16		307598	15.11				
ICV 280-277857/16		277648	15.11				
CCV 280-278072/2		284612	15.15				
CCV 280-278072/3		270027	15.15				
LCS 280-278072/4		275328	15.13				
MB 280-278072/6		280762	15.13				
280-68970-1	54403-TB13-0515	262748	15.13				
280-68970-3	54400-MW46D-0515	243746	15.13				
280-68970-4	54401-MW46D-0515-DUP	236765	15.13				
280-68970-5	54402-EB15-0515	252003	15.13				
280-68970-6	54402-EB14-0515	255084	15.13				
CCVC 280-278072/26		272493	15.13				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54403-TB13-0515 | Lab Sample ID: 280-68970-1
Matrix: Water | Lab File ID: Z7727.D
Analysis Method: 8260B | Date Collected: 05/07/2015 00:00
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 12:34
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54403-TB13-0515 | Lab Sample ID: 280-68970-1
Matrix: Water | Lab File ID: Z7727.D
Analysis Method: 8260B | Date Collected: 05/07/2015 00:00
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 12:34
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.34	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1

SDG No.:

Client Sample ID: 54403-TB13-0515 | Lab Sample ID: 280-68970-1

Matrix: Water | Lab File ID: Z7727.D

Analysis Method: 8260B | Date Collected: 05/07/2015 00:00

Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 12:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

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

Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	106		80-119
2037-26-5	Toluene-d8 (Surr)	104		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7727.D
Lims ID: 280-68970-A-1 Lab Sample ID: 280-68970-1
Client ID: 54403-TB13-0515
Sample Type: Client
Inject. Date: 19-May-2015 12:34:30 ALS Bottle#: 16 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-68970-A-1 ph<2
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:48:32 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: moanm Date: 19-May-2015 13:08:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.492	3.503	-0.011	92	98952	250.0	
* 2 Fluorobenzene	96	6.380	6.392	-0.012	98	573646	12.5	
* 3 1,4-Dioxane-d8	96	7.390	7.292	0.098	27	3697	0	
* 4 Chlorobenzene-d5	119	11.026	11.020	0.006	85	150632	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.133	15.127	0.006	94	262748	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.476	5.469	0.007	95	307684	11.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.911	5.904	0.007	95	112932	10.7	
$ 10 Toluene-d8 (Surr)	98	8.712	8.706	0.006	92	553269	10.9	
$ 11 4-Bromofluorobenzene (Surr	95	13.062	13.056	0.006	90	303405	10.5	
27 Dichlorodifluoromethane	85		1.920				ND	
30 Chloromethane	50		1.989				ND	
32 Vinyl chloride	62		2.111				ND	
35 Bromomethane	94		2.337				ND	
36 Chloroethane	64		2.389				ND	
38 Trichlorofluoromethane	101		2.598				ND	
45 1,1-Dichloroethene	96		3.033				ND	
48 Acetone	43		3.051				ND	
50 Carbon disulfide	76		3.277				ND	
54 Methylene Chloride	84	3.457	3.468	-0.011	86	4424	0.3428	
55 2-Methyl-2-propanol	59		3.573				ND	
57 trans-1,2-Dichloroethene	96		3.764				ND	
56 Methyl tert-butyl ether	73		3.781				ND	
62 1,1-Dichloroethane	63		4.199				ND	
65 cis-1,2-Dichloroethene	96		4.878				ND	
67 2-Butanone (MEK)	43		4.878				ND	
66 2,2-Dichloropropane	77		4.913				ND	
71 Chlorobromomethane	128		5.174				ND	
74 Chloroform	83		5.261				ND	
75 1,1,1-Trichloroethane	97		5.556				ND	
78 1,1-Dichloropropene	75		5.748				ND	
77 Carbon tetrachloride	117		5.783				ND	
82 1,2-Dichloroethane	62		6.009				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.026				ND	
85 Trichloroethene	95		6.914				ND	
90 1,2-Dichloropropane	63		7.209				ND	
92 Dibromomethane	93		7.366				ND	
94 Dichlorobromomethane	83		7.610				ND	
97 cis-1,3-Dichloropropene	75		8.271				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.532				ND	
99 Toluene	91		8.810				ND	
100 trans-1,3-Dichloropropene	75		9.123				ND	
102 1,1,2-Trichloroethane	97		9.419				ND	
104 1,3-Dichloropropane	76		9.680				ND	
103 Tetrachloroethene	164		9.698				ND	
105 2-Hexanone	43		9.854				ND	
107 Chlorodibromomethane	129		10.063				ND	
109 Ethylene Dibromide	107		10.237				ND	
111 Chlorobenzene	112		11.072				ND	
113 1,1,1,2-Tetrachloroethane	131		11.212				ND	
112 Ethylbenzene	106		11.281				ND	
114 m-Xylene & p-Xylene	106		11.490				ND	
115 o-Xylene	106		12.151				ND	
116 Styrene	104		12.169				ND	
117 Bromoform	173		12.464				ND	
118 Isopropylbenzene	105		12.812				ND	
121 Bromobenzene	156		13.300				ND	
122 1,1,2,2-Tetrachloroethane	83		13.317				ND	
124 1,2,3-Trichloropropane	110		13.369				ND	
123 N-Propylbenzene	120		13.543				ND	
126 2-Chlorotoluene	126		13.665				ND	
128 4-Chlorotoluene	126		13.856				ND	
127 1,3,5-Trimethylbenzene	105		13.874				ND	
129 tert-Butylbenzene	119		14.448				ND	
130 1,2,4-Trimethylbenzene	105		14.535				ND	
131 sec-Butylbenzene	134		14.848				ND	
132 1,3-Dichlorobenzene	146		15.005				ND	
133 4-Isopropyltoluene	119		15.127				ND	
134 1,4-Dichlorobenzene	146		15.162				ND	
138 1,2-Dichlorobenzene	146		15.805				ND	
137 n-Butylbenzene	91		15.858				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.936				ND	
141 1,2,4-Trichlorobenzene	180		17.876				ND	
142 Hexachlorobutadiene	225		18.067				ND	
143 Naphthalene	128		18.102				ND	
144 1,2,3-Trichlorobenzene	180		18.346				ND	

Reagents:

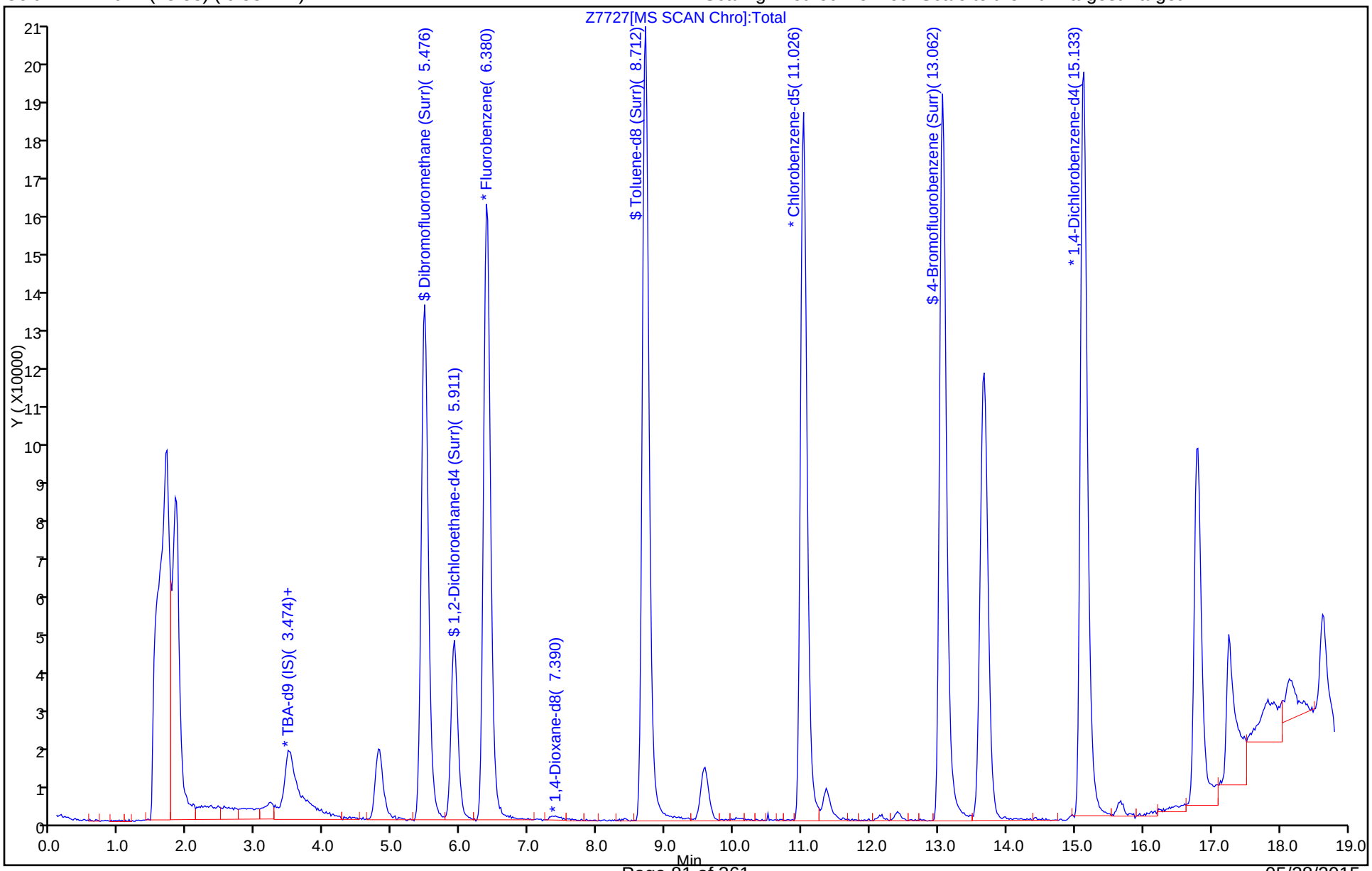
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7727.D				
Injection Date:	19-May-2015 12:34:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	280-68970-A-1	Lab Sample ID:	280-68970-1	Worklist Smp#:	21
Client ID:	54403-TB13-0515				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

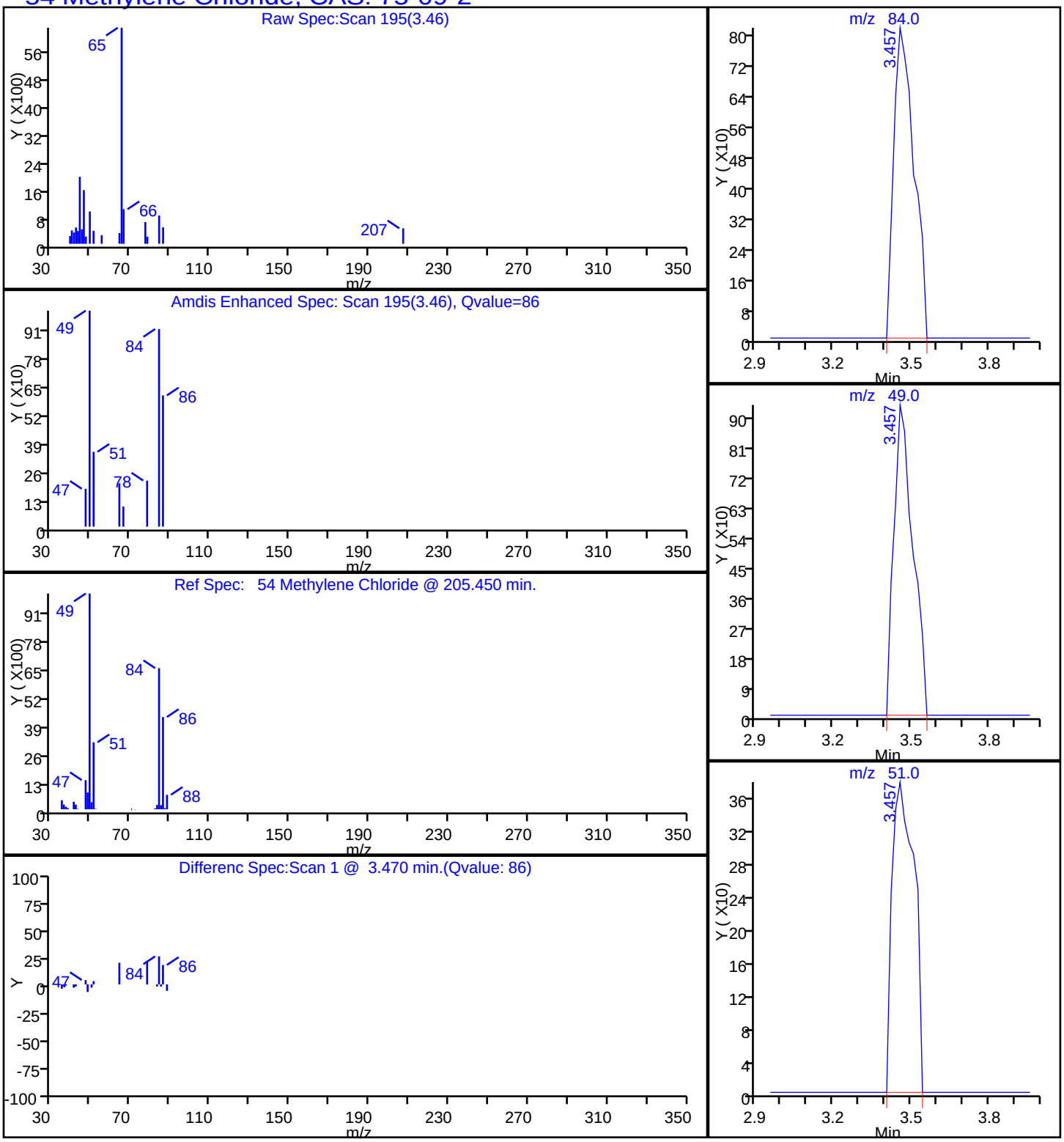


Report Date: 20-May-2015 06:56:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7727.D				
Injection Date:	19-May-2015 12:34:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-A-1	Lab Sample ID:	280-68970-1		
Client ID:	54403-TB13-0515				
Operator ID:	moanm	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

54 Methylene Chloride, CAS: 75-09-2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54400-MW46D-0515 | Lab Sample ID: 280-68970-3
Matrix: Water | Lab File ID: Z7728.D
Analysis Method: 8260B | Date Collected: 05/08/2015 08:40
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 12:57
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.21	J	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	26		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.78	J	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	2.6		2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54400-MW46D-0515 | Lab Sample ID: 280-68970-3
Matrix: Water | Lab File ID: Z7728.D
Analysis Method: 8260B | Date Collected: 05/08/2015 08:40
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 12:57
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	1.0		1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	1.8		1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.36	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	13		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1

SDG No.:

Client Sample ID: 54400-MW46D-0515 | Lab Sample ID: 280-68970-3

Matrix: Water | Lab File ID: Z7728.D

Analysis Method: 8260B | Date Collected: 05/08/2015 08:40

Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 12:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

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

Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	107		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D
Lims ID: 280-68970-C-3 Lab Sample ID: 280-68970-3
Client ID: 54400-MW46D-0515
Sample Type: Client
Inject. Date: 19-May-2015 12:57:30 ALS Bottle#: 17 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-68970-C-3 ph<2
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:48:32 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: moanm Date: 19-May-2015 13:23:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.486	3.503	-0.017	85	97147	250.0	
* 2 Fluorobenzene	96	6.374	6.392	-0.018	99	522251	12.5	
* 3 1,4-Dioxane-d8	96	7.349	7.292	0.057	27	2409	0	
* 4 Chlorobenzene-d5	119	11.020	11.020	0.000	85	137958	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.127	0.000	94	243746	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.470	5.469	0.001	94	282885	11.2	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.905	5.904	0.001	95	108663	11.3	
$ 10 Toluene-d8 (Surr)	98	8.706	8.706	0.000	94	482987	10.4	
$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.056	0.000	91	280569	10.5	
27 Dichlorodifluoromethane	85		1.920				ND	
30 Chloromethane	50		1.989				ND	
32 Vinyl chloride	62		2.111				ND	
35 Bromomethane	94		2.337				ND	
36 Chloroethane	64		2.389				ND	
38 Trichlorofluoromethane	101		2.598				ND	
45 1,1-Dichloroethene	96	3.033	3.033	0.000	99	360088	26.2	
48 Acetone	43		3.051				ND	
50 Carbon disulfide	76		3.277				ND	
54 Methylene Chloride	84	3.468	3.468	0.000	38	4206	0.3580	
55 2-Methyl-2-propanol	59		3.573				ND	
57 trans-1,2-Dichloroethene	96		3.764				ND	
56 Methyl tert-butyl ether	73		3.781				ND	
62 1,1-Dichloroethane	63	4.199	4.199	0.000	88	5439	0.2061	
65 cis-1,2-Dichloroethene	96		4.878				ND	
67 2-Butanone (MEK)	43		4.878				ND	
66 2,2-Dichloropropane	77		4.913				ND	
71 Chlorobromomethane	128		5.174				ND	
74 Chloroform	83	5.261	5.261	0.000	93	47824	1.83	
75 1,1,1-Trichloroethane	97		5.556				ND	
78 1,1-Dichloropropene	75		5.748				ND	
77 Carbon tetrachloride	117	5.783	5.783	0.000	97	66406	2.58	
82 1,2-Dichloroethane	62		6.009				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.026				ND	
85 Trichloroethene	95	6.914	6.914	0.000	94	230796	12.9	
90 1,2-Dichloropropane	63		7.209				ND	
92 Dibromomethane	93		7.366				ND	
94 Dichlorobromomethane	83	7.610	7.610	0.000	98	17429	0.7809	
97 cis-1,3-Dichloropropene	75		8.271				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.532				ND	
99 Toluene	91		8.810				ND	
100 trans-1,3-Dichloropropene	75		9.123				ND	
102 1,1,2-Trichloroethane	97		9.419				ND	
104 1,3-Dichloropropane	76		9.680				ND	
103 Tetrachloroethene	164		9.698				ND	
105 2-Hexanone	43		9.854				ND	
107 Chlorodibromomethane	129	10.063	10.063	0.000	88	17176	1.01	
109 Ethylene Dibromide	107		10.237				ND	
111 Chlorobenzene	112		11.072				ND	
113 1,1,1,2-Tetrachloroethane	131		11.212				ND	
112 Ethylbenzene	106		11.281				ND	
114 m-Xylene & p-Xylene	106		11.490				ND	
115 o-Xylene	106		12.151				ND	
116 Styrene	104		12.169				ND	
117 Bromoform	173		12.464				ND	
118 Isopropylbenzene	105		12.812				ND	
121 Bromobenzene	156		13.300				ND	
122 1,1,2,2-Tetrachloroethane	83		13.317				ND	
124 1,2,3-Trichloropropane	110		13.369				ND	
123 N-Propylbenzene	120		13.543				ND	
126 2-Chlorotoluene	126		13.665				ND	
128 4-Chlorotoluene	126		13.856				ND	
127 1,3,5-Trimethylbenzene	105		13.874				ND	
129 tert-Butylbenzene	119		14.448				ND	
130 1,2,4-Trimethylbenzene	105		14.535				ND	
131 sec-Butylbenzene	134		14.848				ND	
132 1,3-Dichlorobenzene	146		15.005				ND	
133 4-Isopropyltoluene	119		15.127				ND	
134 1,4-Dichlorobenzene	146		15.162				ND	
138 1,2-Dichlorobenzene	146		15.805				ND	
137 n-Butylbenzene	91		15.858				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.936				ND	
141 1,2,4-Trichlorobenzene	180		17.876				ND	
142 Hexachlorobutadiene	225		18.067				ND	
143 Naphthalene	128		18.102				ND	
144 1,2,3-Trichlorobenzene	180		18.346				ND	

Reagents:

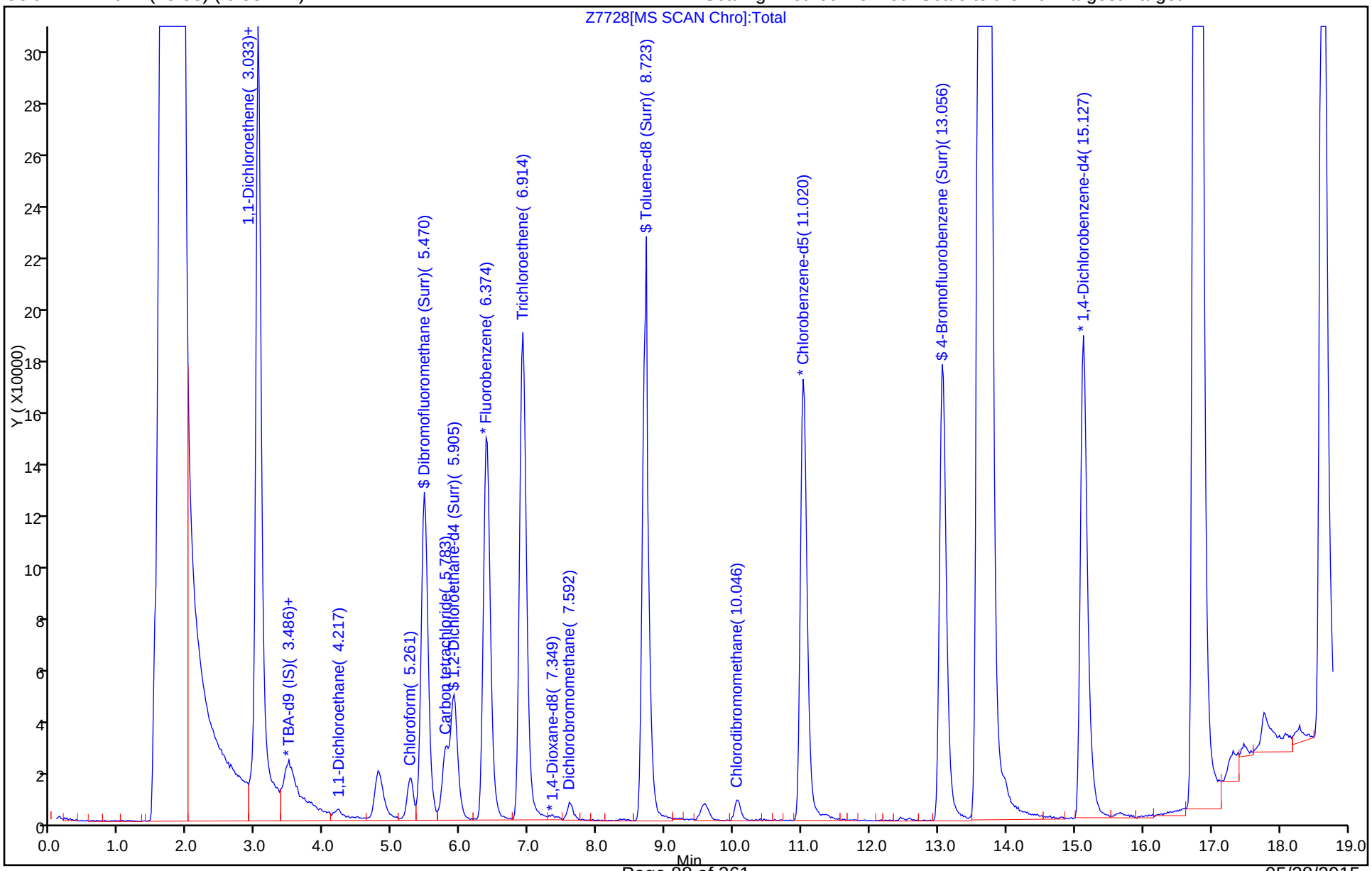
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3	Worklist Smp#:	22
Client ID:	54400-MW46D-0515				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

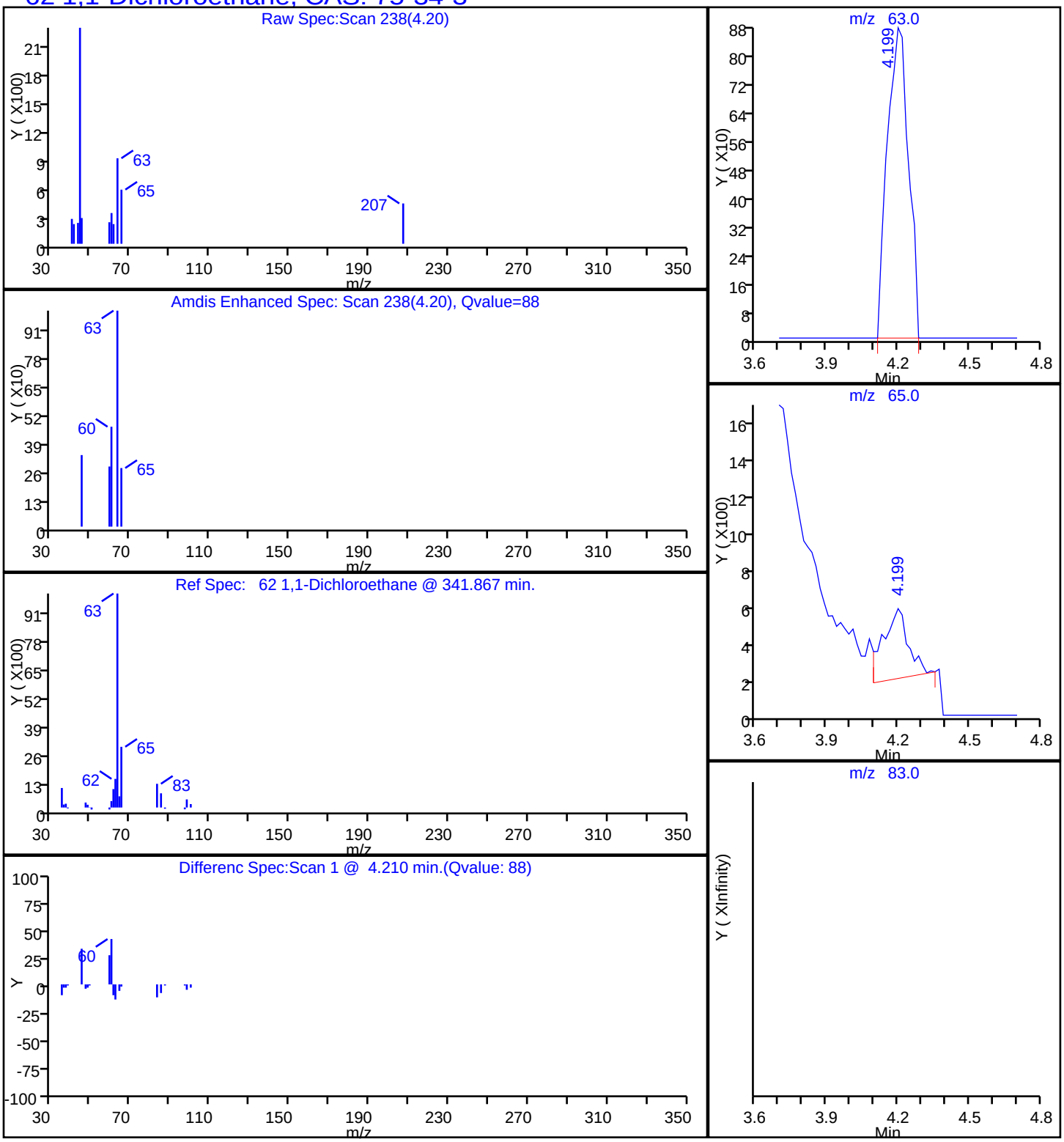


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

62 1,1-Dichloroethane, CAS: 75-34-3

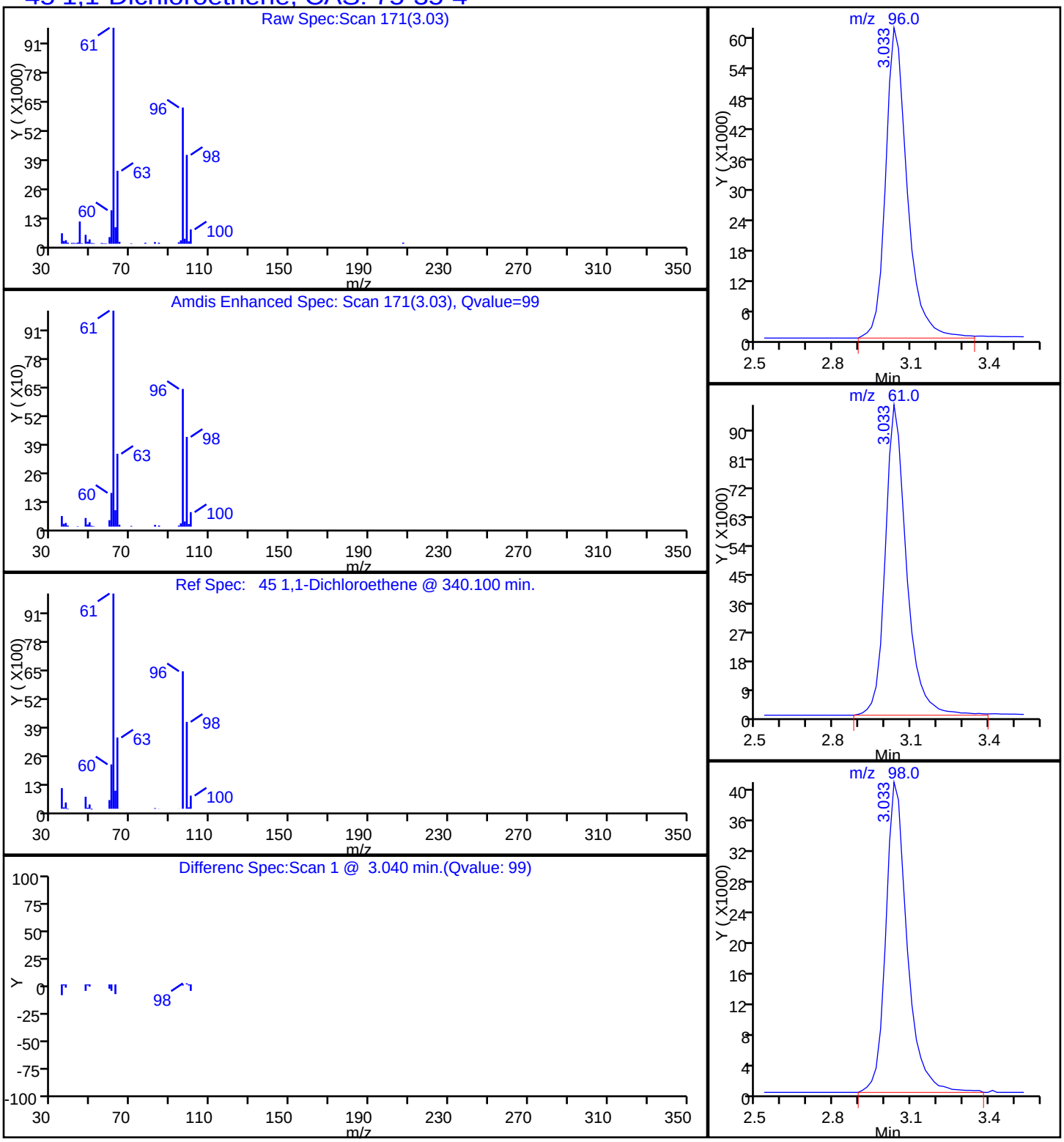


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

45 1,1-Dichloroethene, CAS: 75-35-4

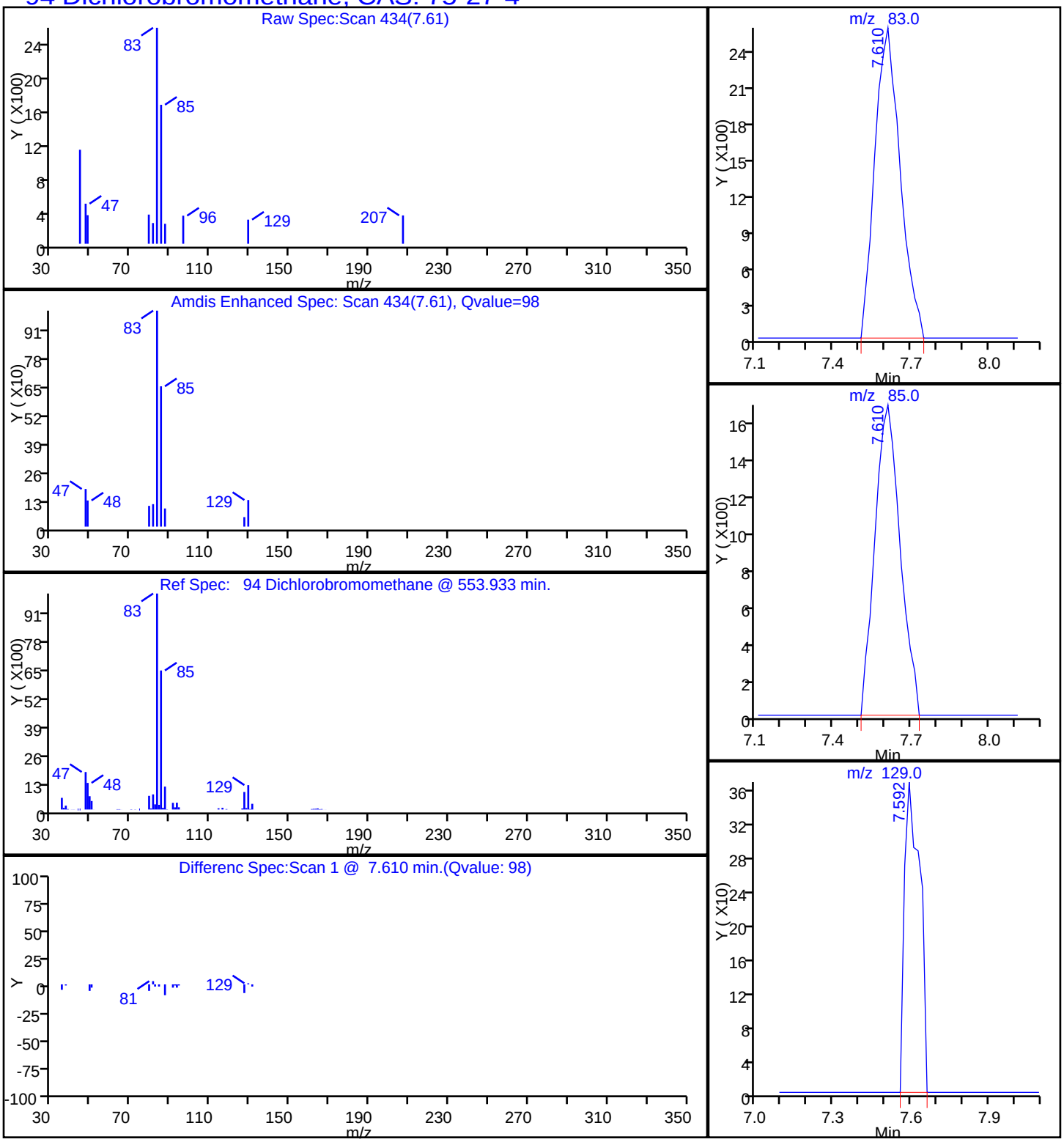


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

94 Dichlorobromomethane, CAS: 75-27-4

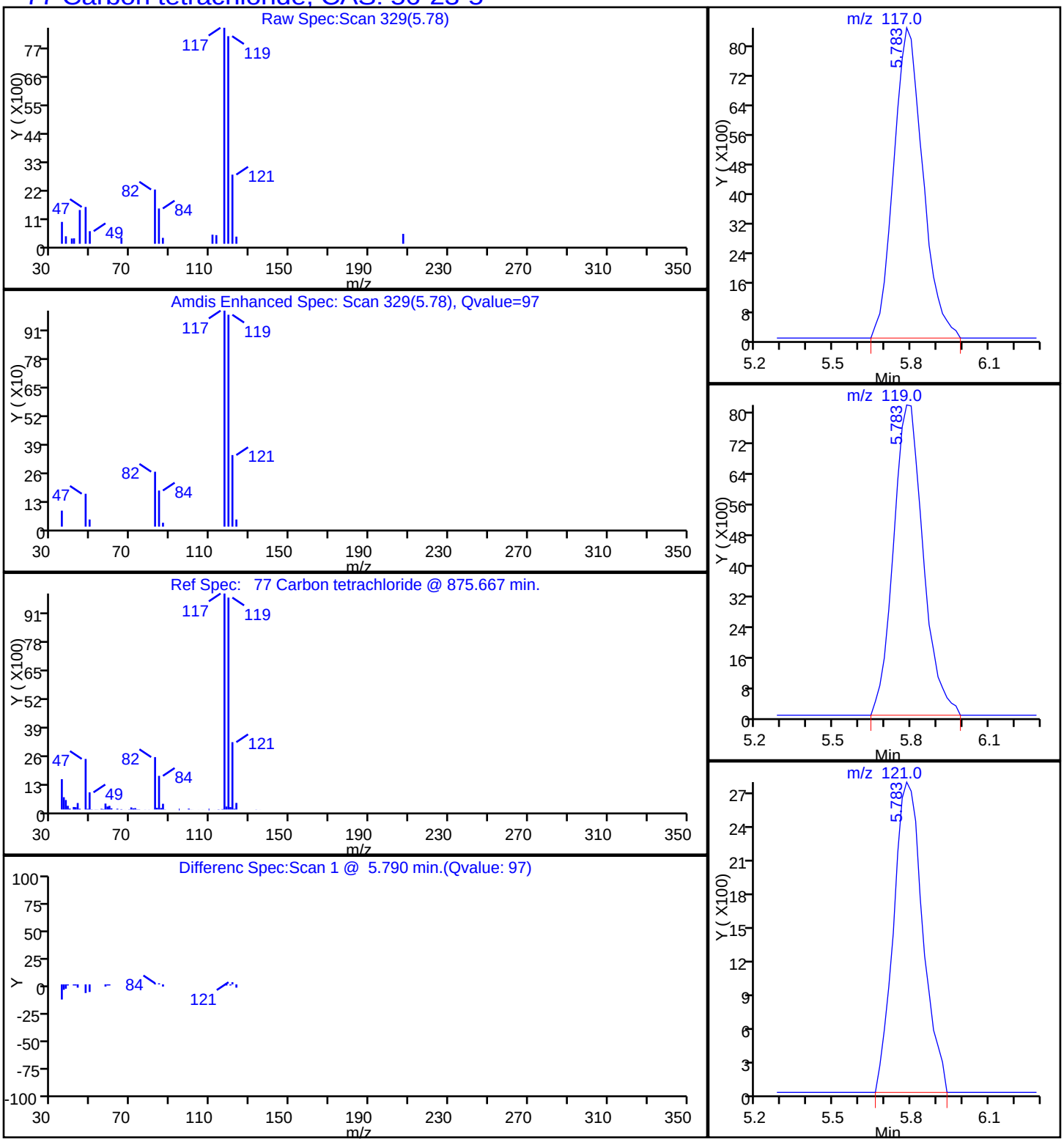


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

77 Carbon tetrachloride, CAS: 56-23-5

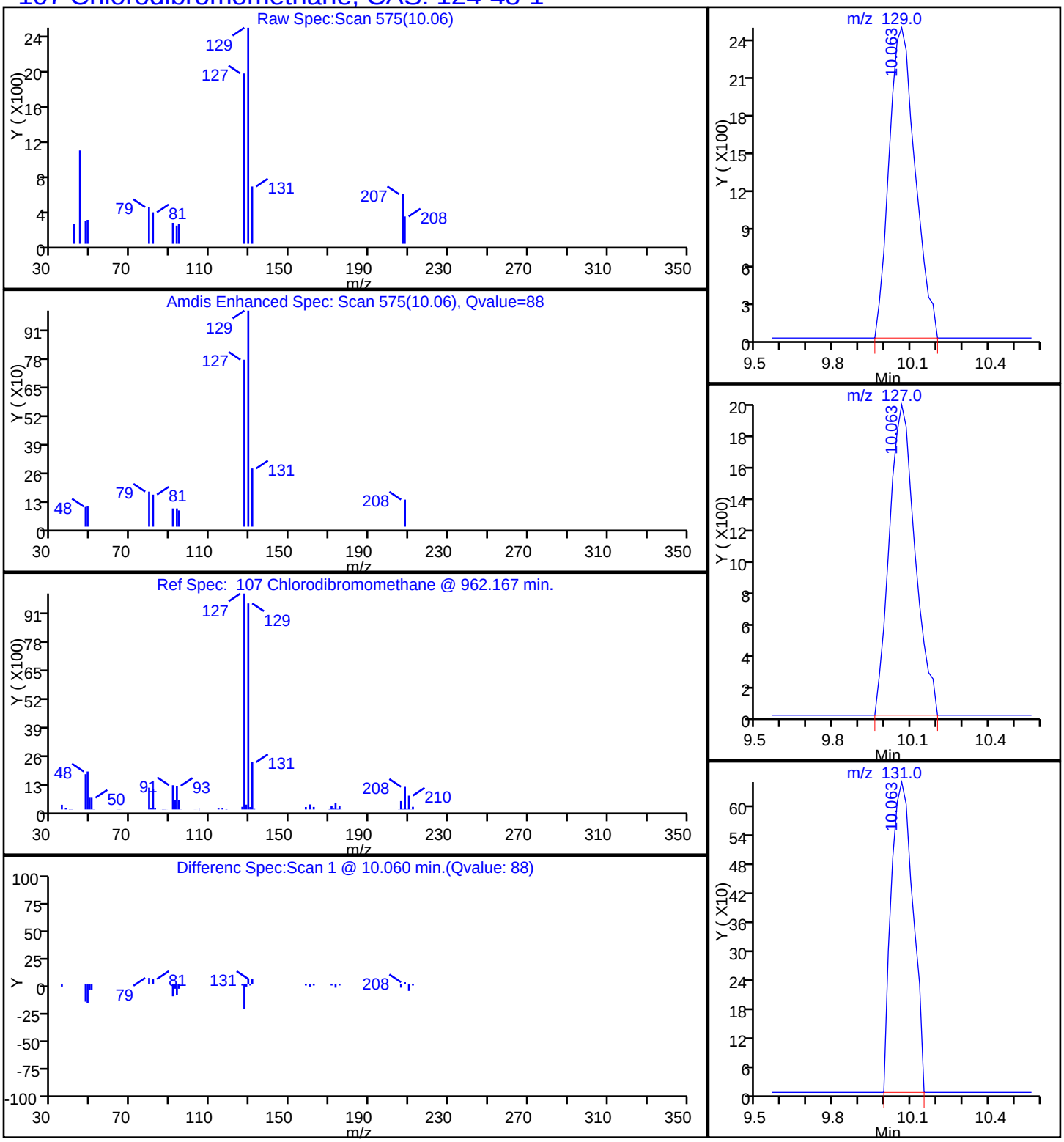


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

107 Chlorodibromomethane, CAS: 124-48-1

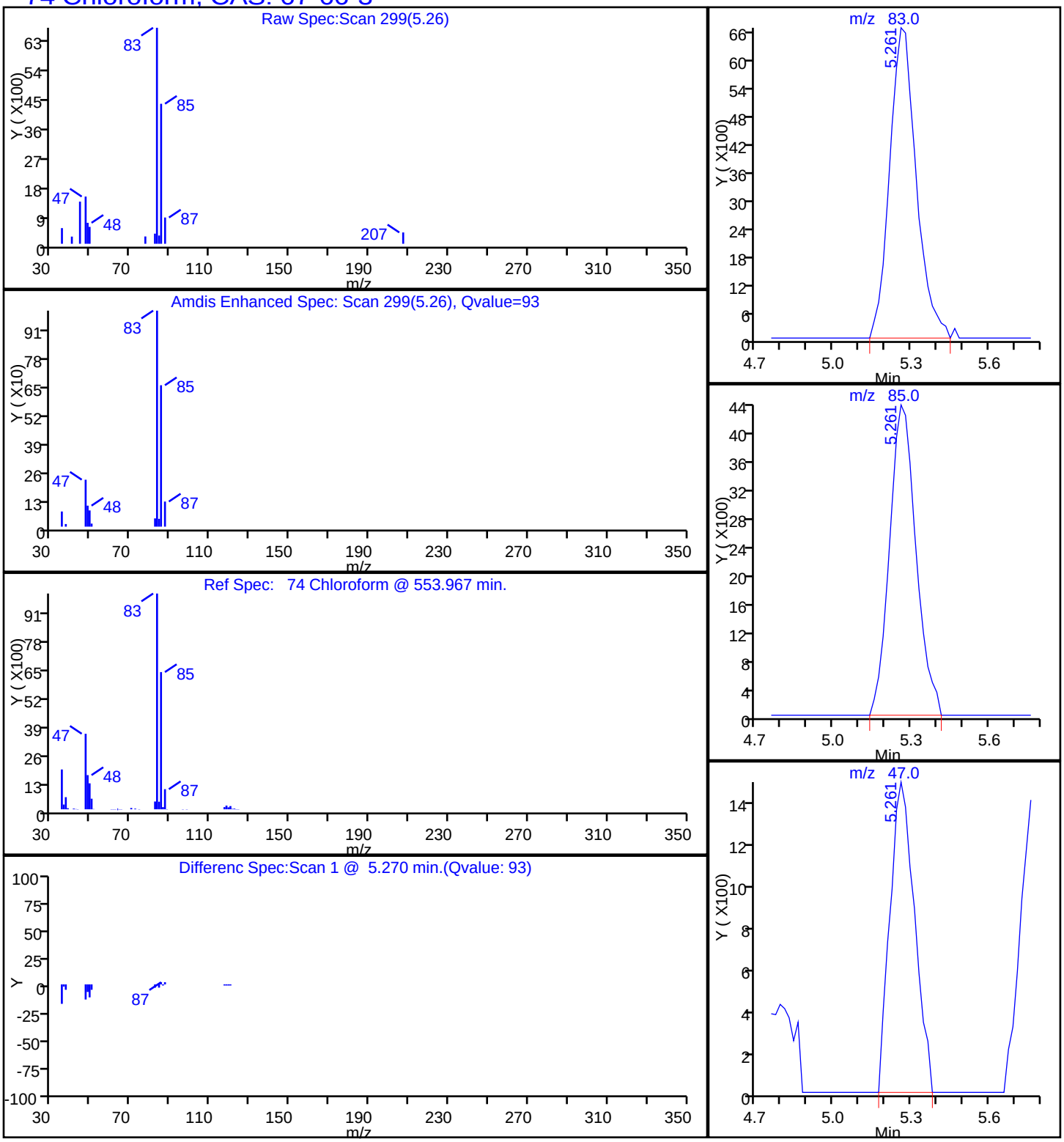


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

74 Chloroform, CAS: 67-66-3

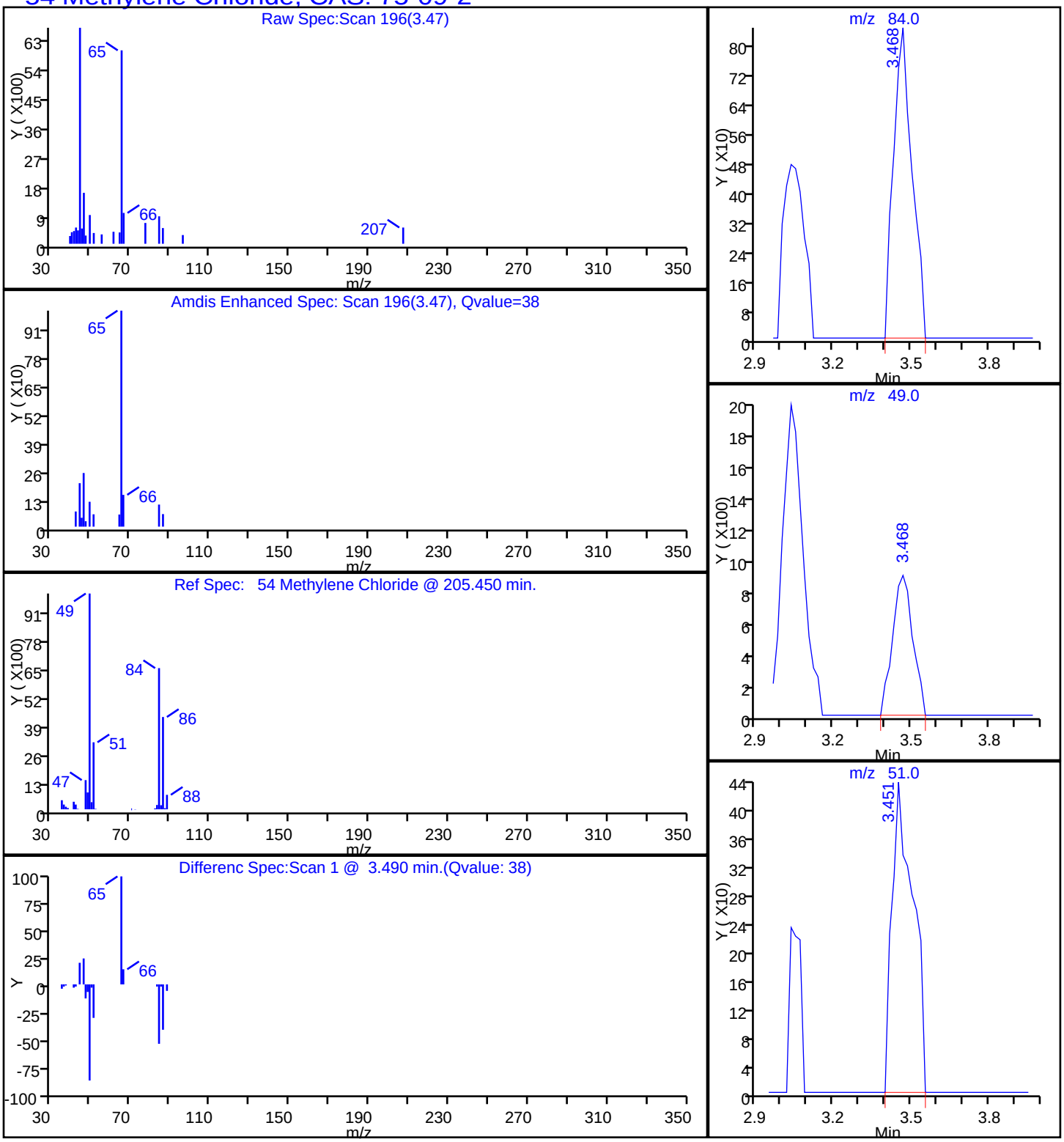


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

54 Methylene Chloride, CAS: 75-09-2

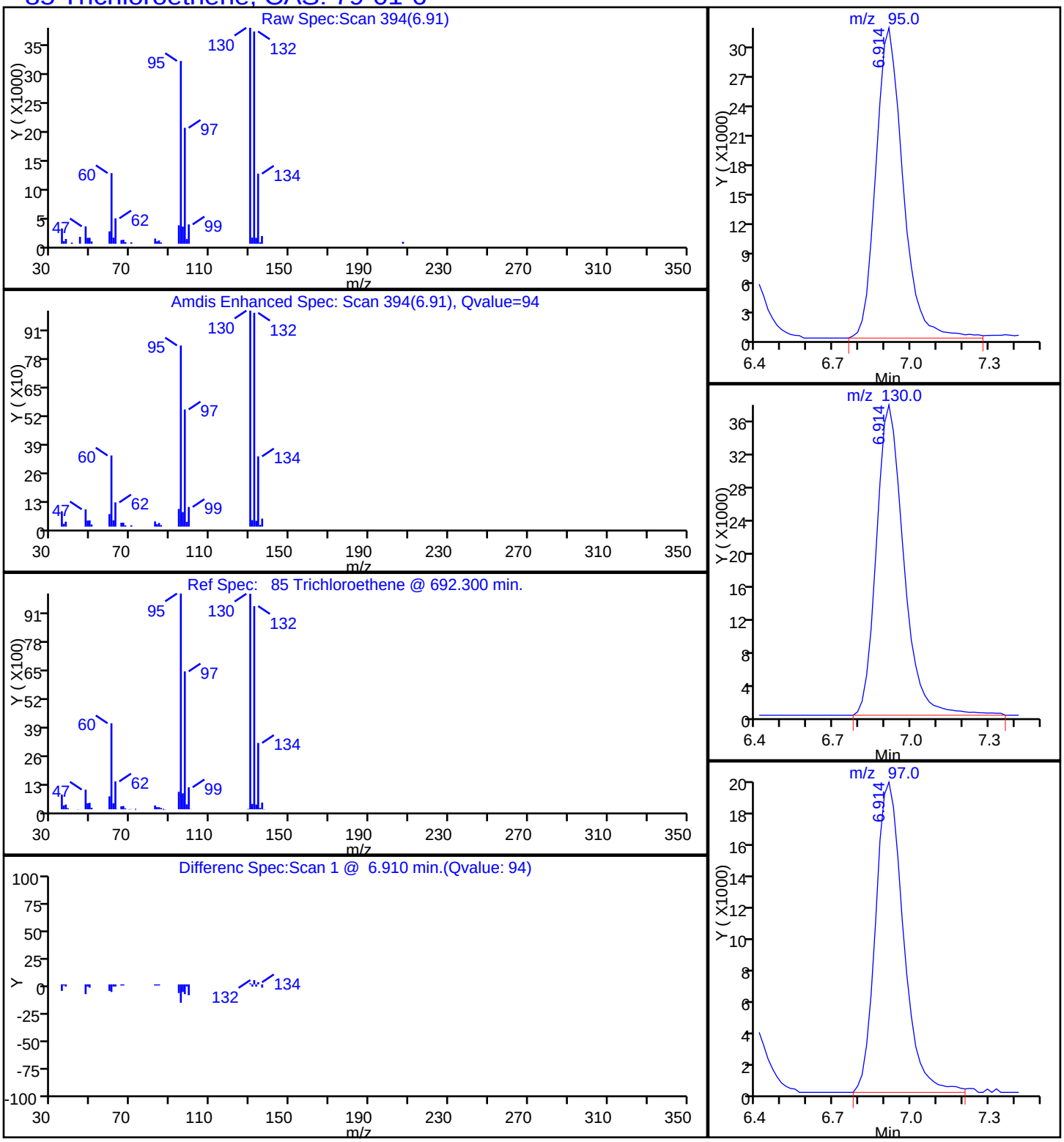


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7728.D				
Injection Date:	19-May-2015 12:57:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-3	Lab Sample ID:	280-68970-3		
Client ID:	54400-MW46D-0515				
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

85 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54401-MW46D-0515-DUP | Lab Sample ID: 280-68970-4
Matrix: Water | Lab File ID: Z7729.D
Analysis Method: 8260B | Date Collected: 05/08/2015 08:40
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 13:20
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.20	J	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	24		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.79	J	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	2.5		2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54401-MW46D-0515-DUP | Lab Sample ID: 280-68970-4
Matrix: Water | Lab File ID: Z7729.D
Analysis Method: 8260B | Date Collected: 05/08/2015 08:40
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 13:20
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	1.0		1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	1.8		1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.34	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	12		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1

SDG No.:

Client Sample ID: 54401-MW46D-0515-DUP | Lab Sample ID: 280-68970-4

Matrix: Water | Lab File ID: Z7729.D

Analysis Method: 8260B | Date Collected: 05/08/2015 08:40

Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 13:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

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

Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		81-118
460-00-4	4-Bromofluorobenzene (Surr)	97		85-114
1868-53-7	Dibromofluoromethane (Surr)	105		80-119
2037-26-5	Toluene-d8 (Surr)	102		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D
Lims ID: 280-68970-B-4 Lab Sample ID: 280-68970-4
Client ID: 54401-MW46D-0515-DUP
Sample Type: Client
Inject. Date: 19-May-2015 13:20:30 ALS Bottle#: 18 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-68970-B-4 ph<2
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:48:32 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: moanm Date: 19-May-2015 13:48:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.485	3.503	-0.018	91	84727	250.0	
* 2 Fluorobenzene	96	6.373	6.392	-0.019	98	507984	12.5	
* 3 1,4-Dioxane-d8	96	7.383	7.292	0.091	30	3775	0	
* 4 Chlorobenzene-d5	119	11.019	11.020	-0.001	85	132720	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.126	15.127	-0.001	94	236765	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.468	5.469	-0.001	94	269063	11.0	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.903	5.904	-0.001	95	105948	11.3	
$ 10 Toluene-d8 (Surr)	98	8.705	8.706	-0.001	92	481285	10.7	
$ 11 4-Bromofluorobenzene (Surr	95	13.055	13.056	-0.001	91	265261	10.2	
27 Dichlorodifluoromethane	85		1.920				ND	
30 Chloromethane	50		1.989				ND	
32 Vinyl chloride	62		2.111				ND	
35 Bromomethane	94		2.337				ND	
36 Chloroethane	64		2.389				ND	
38 Trichlorofluoromethane	101		2.598				ND	
45 1,1-Dichloroethene	96	3.032	3.033	-0.001	98	320756	24.0	
48 Acetone	43		3.051				ND	
50 Carbon disulfide	76		3.277				ND	
54 Methylene Chloride	84	3.450	3.468	-0.018	83	3929	0.3438	
55 2-Methyl-2-propanol	59		3.573				ND	
57 trans-1,2-Dichloroethene	96		3.764				ND	
56 Methyl tert-butyl ether	73		3.781				ND	
62 1,1-Dichloroethane	63	4.181	4.199	-0.018	88	5212	0.2030	
65 cis-1,2-Dichloroethene	96		4.878				ND	
67 2-Butanone (MEK)	43		4.878				ND	
66 2,2-Dichloropropane	77		4.913				ND	
71 Chlorobromomethane	128		5.174				ND	
74 Chloroform	83	5.260	5.261	-0.001	93	46601	1.84	
75 1,1,1-Trichloroethane	97		5.556				ND	
78 1,1-Dichloropropene	75		5.748				ND	
77 Carbon tetrachloride	117	5.782	5.783	-0.001	96	62606	2.51	
82 1,2-Dichloroethane	62		6.009				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.026				ND	
85 Trichloroethene	95	6.913	6.914	-0.001	94	213708	12.3	
90 1,2-Dichloropropane	63		7.209				ND	
92 Dibromomethane	93		7.366				ND	
94 Dichlorobromomethane	83	7.609	7.610	-0.001	98	17227	0.7936	
97 cis-1,3-Dichloropropene	75		8.271				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.532				ND	
99 Toluene	91		8.810				ND	
100 trans-1,3-Dichloropropene	75		9.123				ND	
102 1,1,2-Trichloroethane	97		9.419				ND	
104 1,3-Dichloropropane	76		9.680				ND	
103 Tetrachloroethene	164		9.698				ND	
105 2-Hexanone	43		9.854				ND	
107 Chlorodibromomethane	129	10.062	10.063	-0.001	88	16517	1.01	
109 Ethylene Dibromide	107		10.237				ND	
111 Chlorobenzene	112		11.072				ND	
113 1,1,1,2-Tetrachloroethane	131		11.212				ND	
112 Ethylbenzene	106		11.281				ND	
114 m-Xylene & p-Xylene	106		11.490				ND	
115 o-Xylene	106		12.151				ND	
116 Styrene	104		12.169				ND	
117 Bromoform	173		12.464				ND	
118 Isopropylbenzene	105		12.812				ND	
121 Bromobenzene	156		13.300				ND	
122 1,1,2,2-Tetrachloroethane	83		13.317				ND	
124 1,2,3-Trichloropropane	110		13.369				ND	
123 N-Propylbenzene	120		13.543				ND	
126 2-Chlorotoluene	126		13.665				ND	
128 4-Chlorotoluene	126		13.856				ND	
127 1,3,5-Trimethylbenzene	105		13.874				ND	
129 tert-Butylbenzene	119		14.448				ND	
130 1,2,4-Trimethylbenzene	105		14.535				ND	
131 sec-Butylbenzene	134		14.848				ND	
132 1,3-Dichlorobenzene	146		15.005				ND	
133 4-Isopropyltoluene	119		15.127				ND	
134 1,4-Dichlorobenzene	146		15.162				ND	
138 1,2-Dichlorobenzene	146		15.805				ND	
137 n-Butylbenzene	91		15.858				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.936				ND	
141 1,2,4-Trichlorobenzene	180		17.876				ND	
142 Hexachlorobutadiene	225		18.067				ND	
143 Naphthalene	128		18.102				ND	
144 1,2,3-Trichlorobenzene	180		18.346				ND	

Reagents:

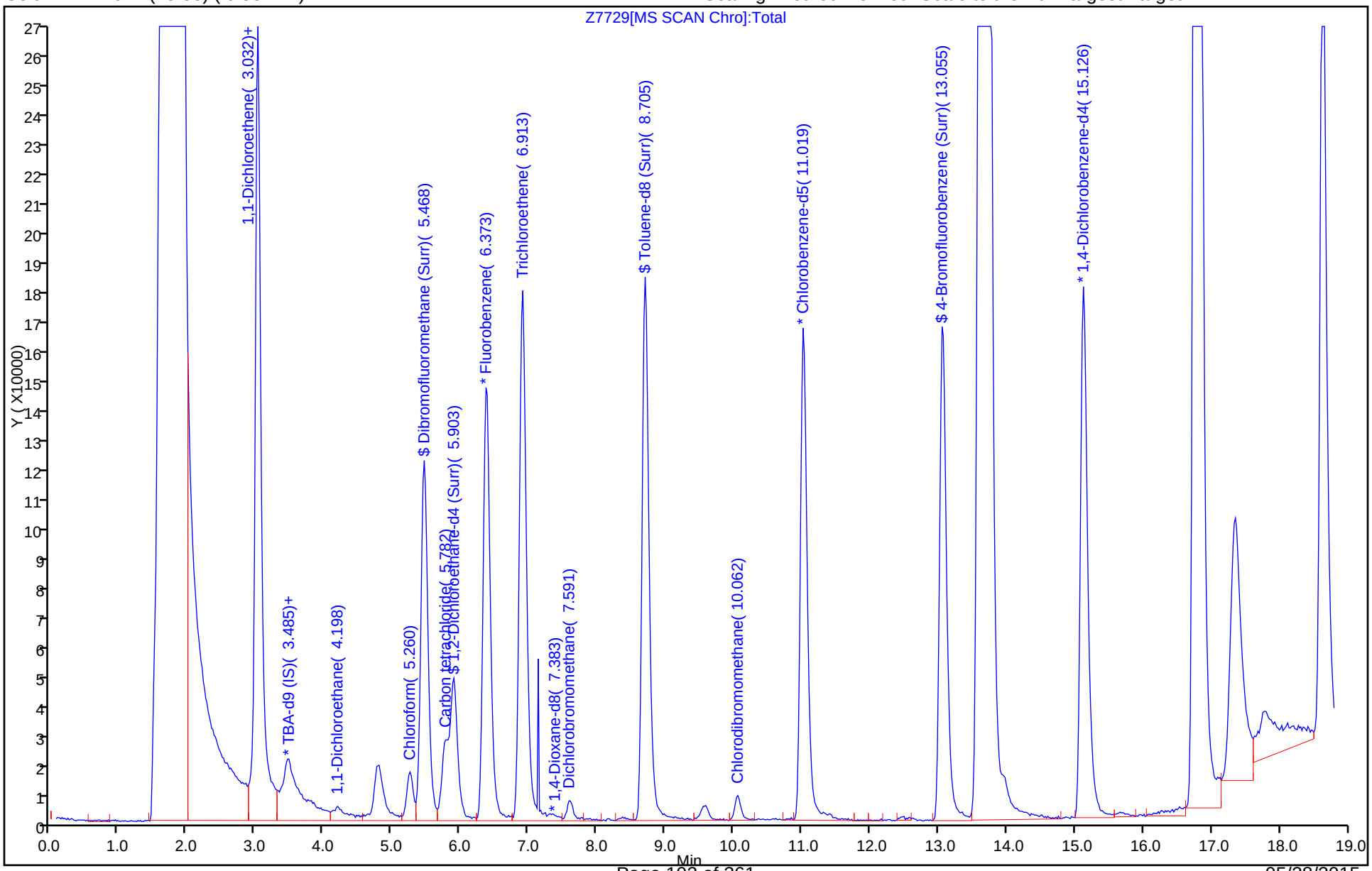
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4	Worklist Smp#:	23
Client ID:	54401-MW46D-0515-DUP				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

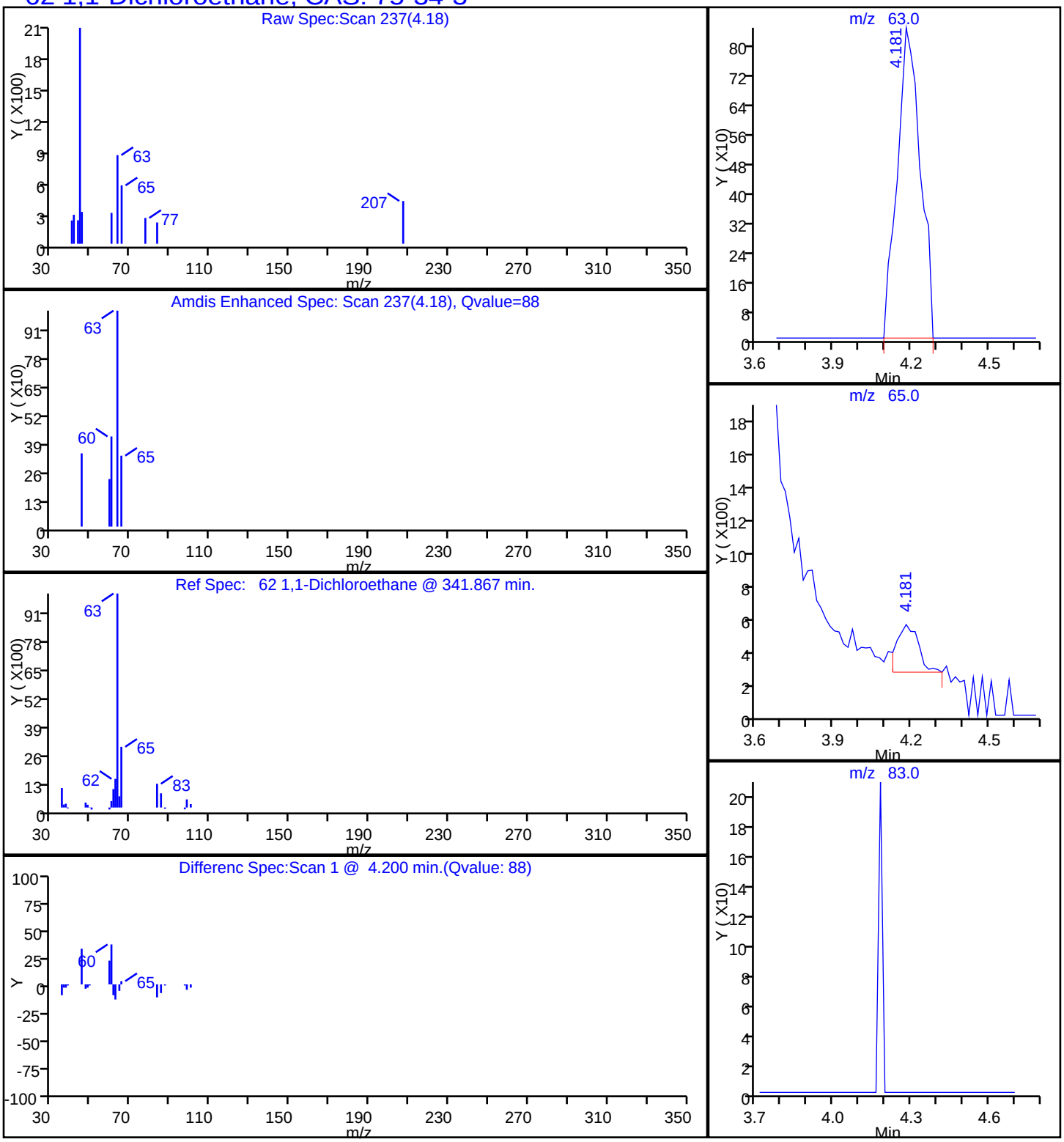


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

62 1,1-Dichloroethane, CAS: 75-34-3

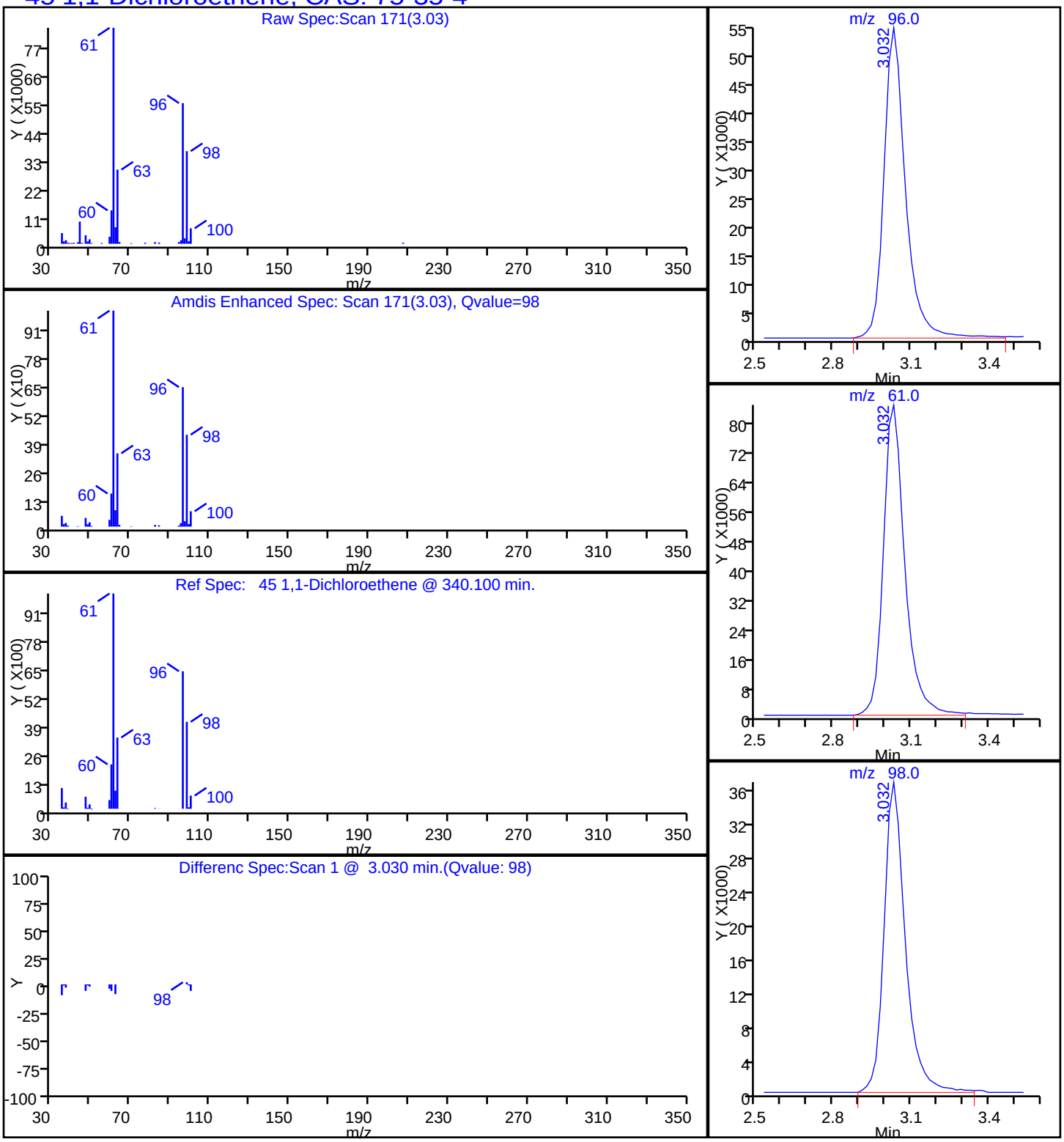


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

45 1,1-Dichloroethene, CAS: 75-35-4

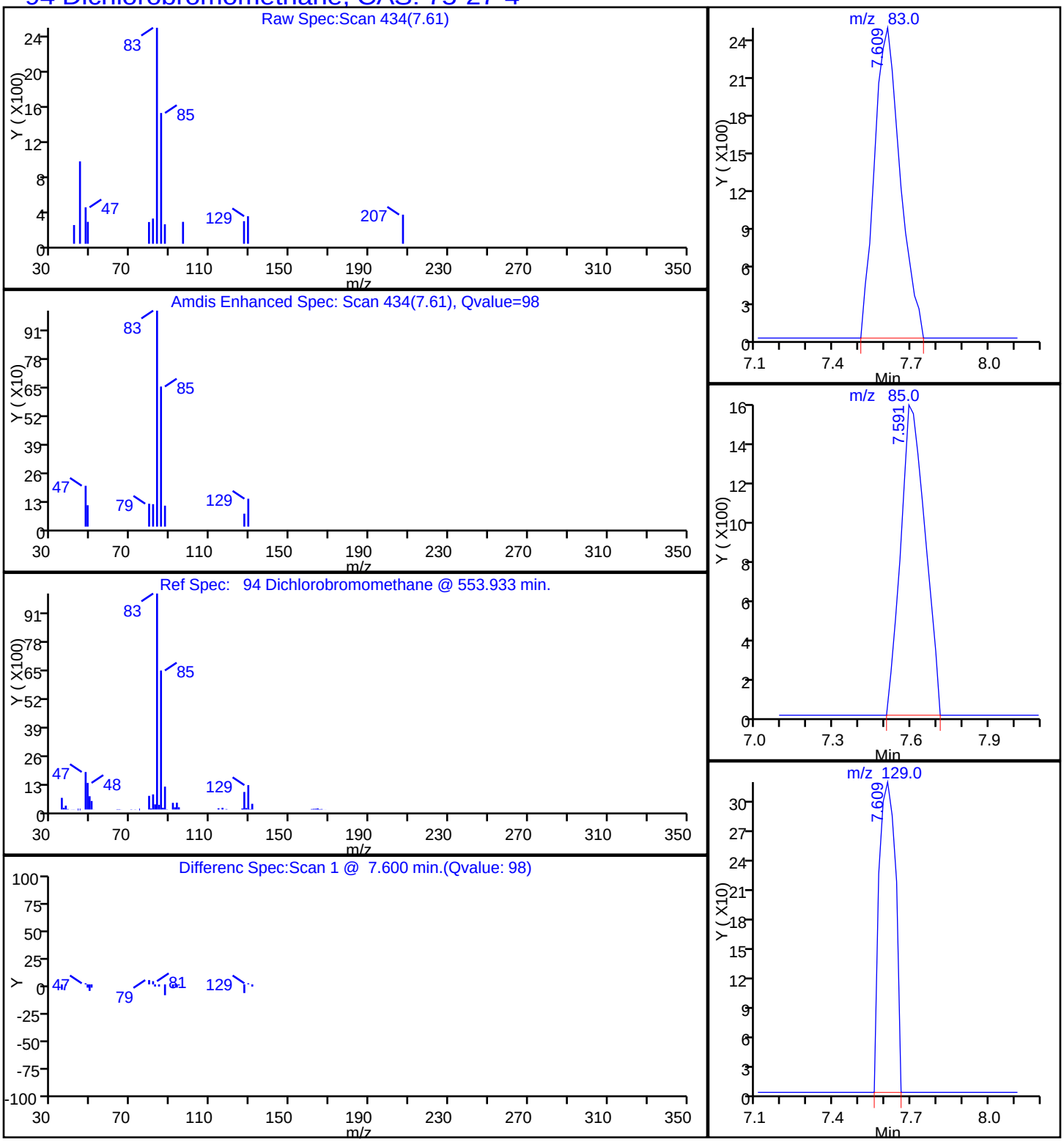


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

94 Dichlorobromomethane, CAS: 75-27-4

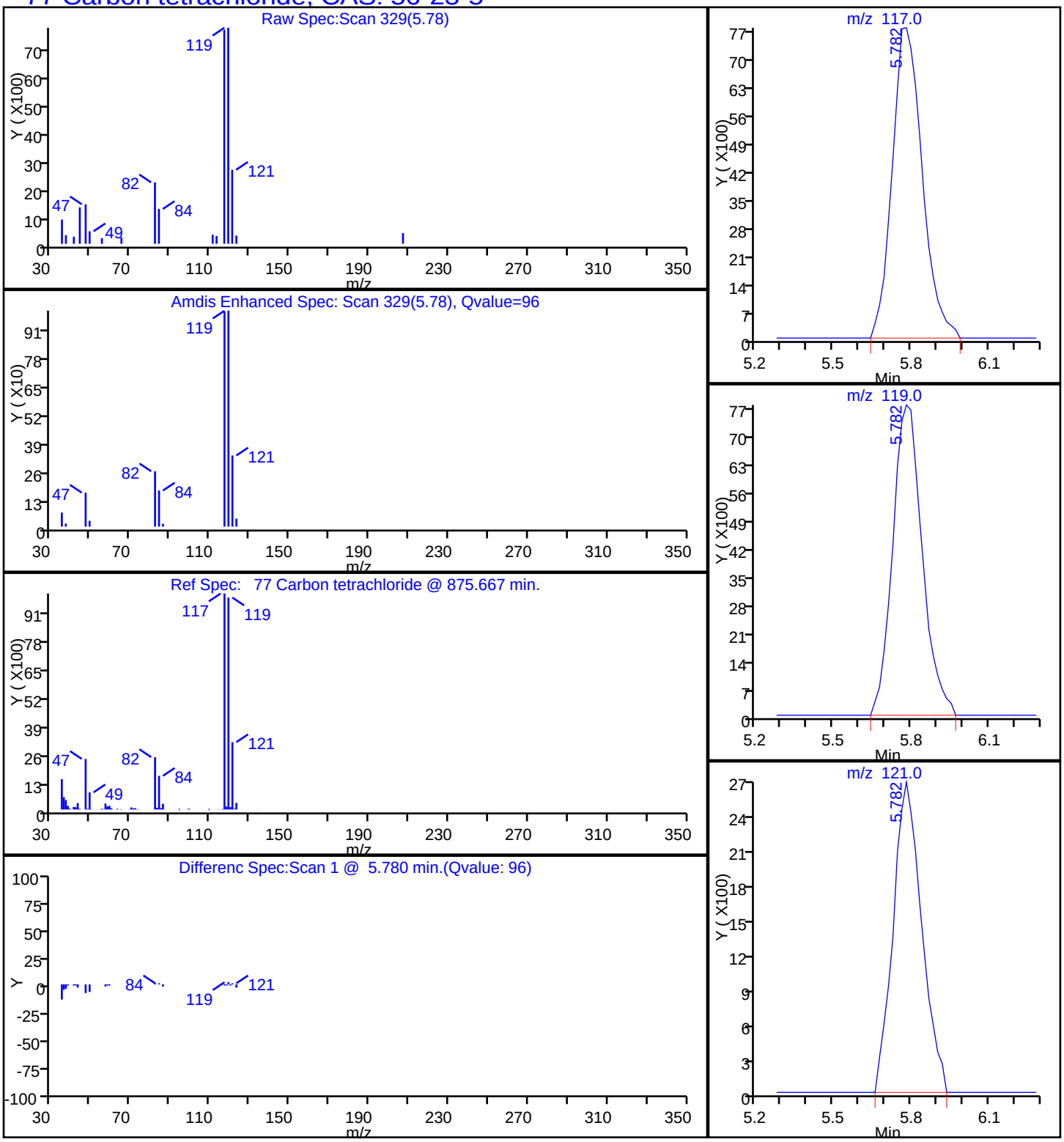


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

77 Carbon tetrachloride, CAS: 56-23-5

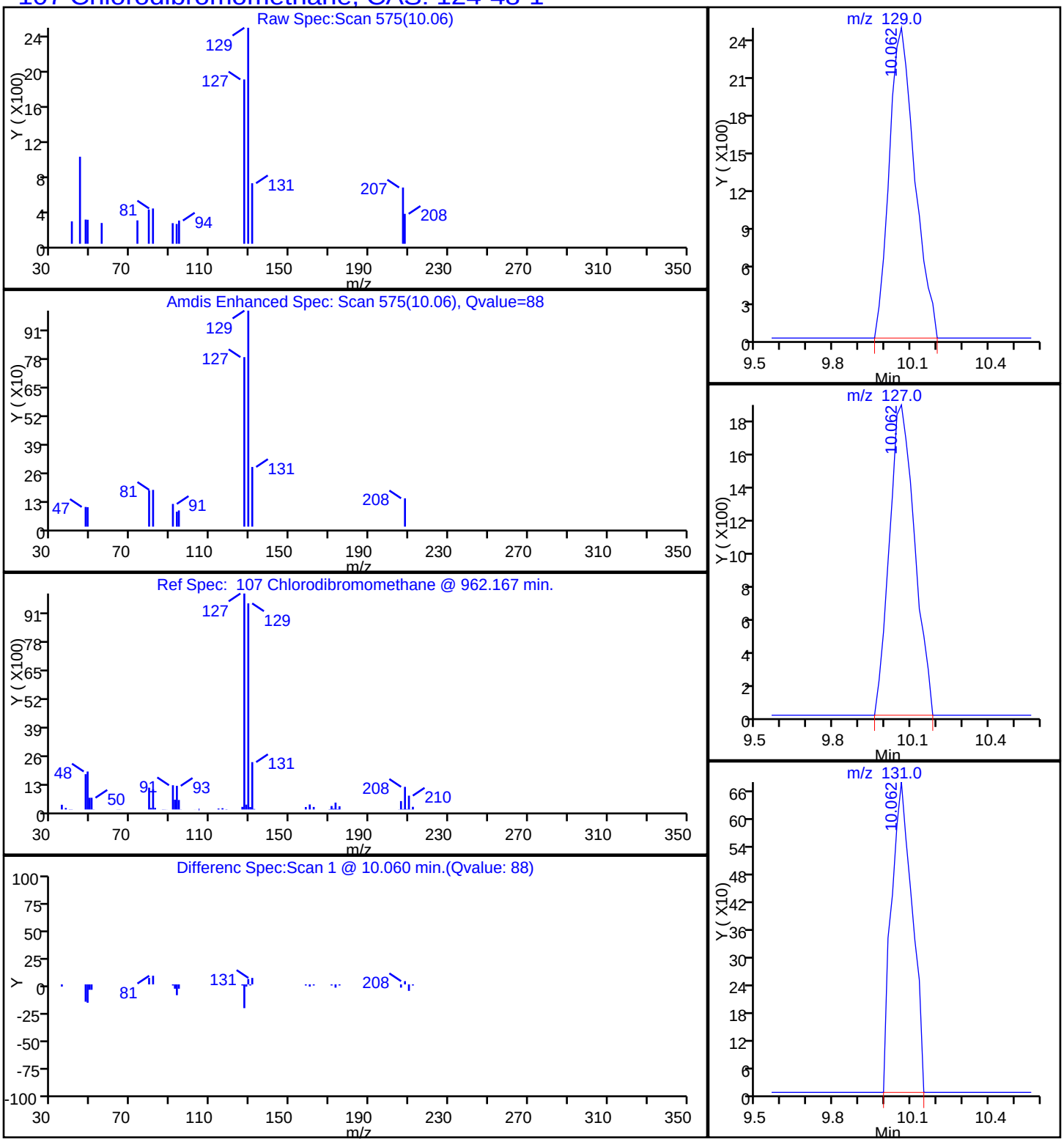


Report Date: 20-May-2015 06:56:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

107 Chlorodibromomethane, CAS: 124-48-1

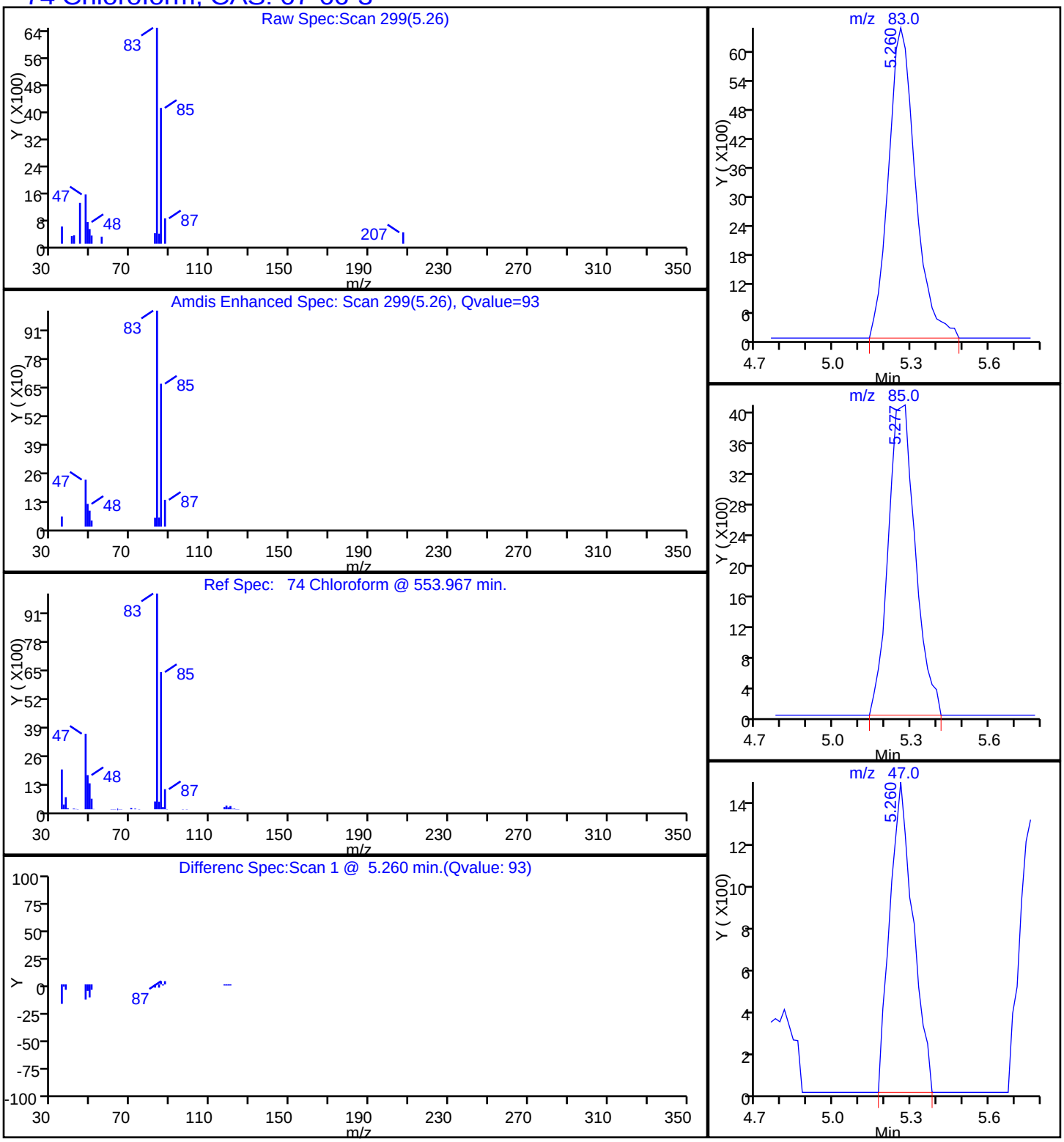


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

74 Chloroform, CAS: 67-66-3

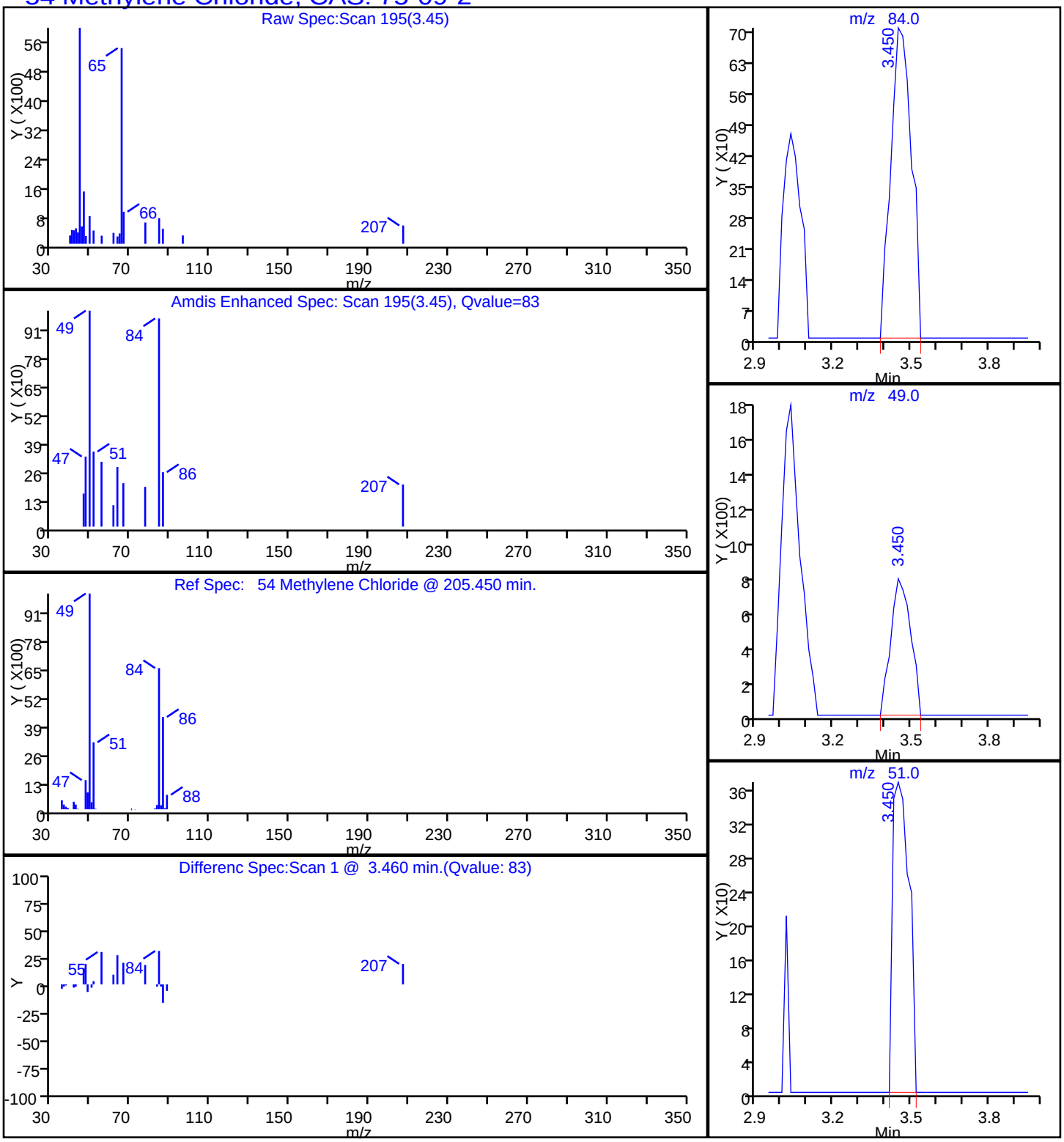


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

54 Methylene Chloride, CAS: 75-09-2

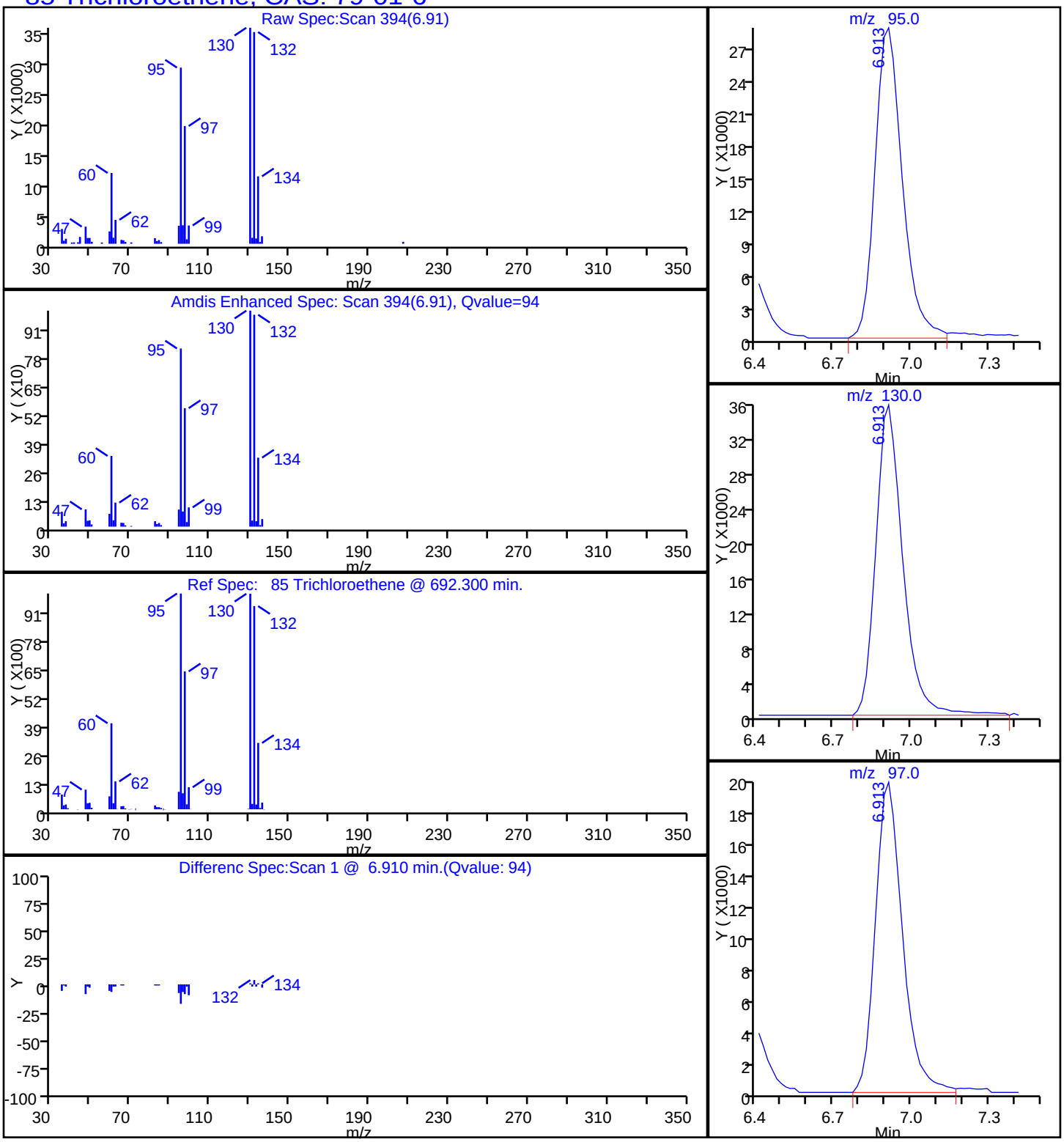


Report Date: 20-May-2015 06:56:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7729.D				
Injection Date:	19-May-2015 13:20:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-B-4	Lab Sample ID:	280-68970-4		
Client ID:	54401-MW46D-0515-DUP				
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

85 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54402-EB15-0515 | Lab Sample ID: 280-68970-5
Matrix: Water | Lab File ID: Z7730.D
Analysis Method: 8260B | Date Collected: 05/08/2015 10:00
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 13:42
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	18		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	12		10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54402-EB15-0515
Lab Sample ID: 280-68970-5
Matrix: Water
Lab File ID: Z7730.D
Analysis Method: 8260B
Date Collected: 05/08/2015 10:00
Sample wt/vol: 20(mL)
Date Analyzed: 05/19/2015 13:42
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 278072
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54402-EB15-0515
Lab Sample ID: 280-68970-5
Matrix: Water
Lab File ID: Z7730.D
Analysis Method: 8260B
Date Collected: 05/08/2015 10:00
Sample wt/vol: 20(mL)
Date Analyzed: 05/19/2015 13:42
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 278072
Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		81-118
460-00-4	4-Bromofluorobenzene (Surr)	98		85-114
1868-53-7	Dibromofluoromethane (Surr)	104		80-119
2037-26-5	Toluene-d8 (Surr)	101		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7730.D
Lims ID: 280-68970-C-5 Lab Sample ID: 280-68970-5
Client ID: 54402-EB15-0515
Sample Type: Client
Inject. Date: 19-May-2015 13:42:30 ALS Bottle#: 19 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-68970-C-5 ph<2
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:48:32 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: moanm Date: 20-May-2015 06:47:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.486	3.503	-0.017	85	89916	250.0	
* 2 Fluorobenzene	96	6.375	6.392	-0.017	98	547114	12.5	
* 3 1,4-Dioxane-d8	96	7.366	7.292	0.074	41	7141	0	
* 4 Chlorobenzene-d5	119	11.021	11.020	0.001	85	145095	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.127	0.000	94	252003	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.470	5.469	0.001	94	288907	11.0	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.905	5.904	0.001	96	108048	10.7	
$ 10 Toluene-d8 (Surr)	98	8.706	8.706	0.000	92	519061	10.6	
$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.056	0.000	91	285837	10.3	
27 Dichlorodifluoromethane	85		1.920				ND	
30 Chloromethane	50		1.989				ND	
32 Vinyl chloride	62		2.111				ND	
35 Bromomethane	94		2.337				ND	
36 Chloroethane	64		2.389				ND	
38 Trichlorofluoromethane	101		2.598				ND	
45 1,1-Dichloroethene	96		3.033				ND	
48 Acetone	43	3.034	3.051	-0.017	97	7601	11.5	
50 Carbon disulfide	76		3.277				ND	
54 Methylene Chloride	84	3.469	3.468	0.001	37	3416	0.2775	
55 2-Methyl-2-propanol	59		3.573				ND	
57 trans-1,2-Dichloroethene	96		3.764				ND	
56 Methyl tert-butyl ether	73		3.781				ND	
62 1,1-Dichloroethane	63		4.199				ND	
65 cis-1,2-Dichloroethene	96		4.878				ND	
67 2-Butanone (MEK)	43	4.878	4.878	0.000	100	28331	17.6	
66 2,2-Dichloropropane	77		4.913				ND	
71 Chlorobromomethane	128		5.174				ND	
74 Chloroform	83		5.261				ND	
75 1,1,1-Trichloroethane	97		5.556				ND	
78 1,1-Dichloropropene	75		5.748				ND	
77 Carbon tetrachloride	117		5.783				ND	
82 1,2-Dichloroethane	62		6.009				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.026				ND	
85 Trichloroethene	95		6.914				ND	
90 1,2-Dichloropropane	63		7.209				ND	
92 Dibromomethane	93		7.366				ND	
94 Dichlorobromomethane	83		7.610				ND	
97 cis-1,3-Dichloropropene	75		8.271				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.532				ND	
99 Toluene	91		8.810				ND	
100 trans-1,3-Dichloropropene	75		9.123				ND	
102 1,1,2-Trichloroethane	97		9.419				ND	
104 1,3-Dichloropropane	76		9.680				ND	
103 Tetrachloroethene	164		9.698				ND	
105 2-Hexanone	43		9.854				ND	
107 Chlorodibromomethane	129		10.063				ND	
109 Ethylene Dibromide	107		10.237				ND	
111 Chlorobenzene	112		11.072				ND	
113 1,1,1,2-Tetrachloroethane	131		11.212				ND	
112 Ethylbenzene	106		11.281				ND	
114 m-Xylene & p-Xylene	106		11.490				ND	
115 o-Xylene	106		12.151				ND	
116 Styrene	104		12.169				ND	
117 Bromoform	173		12.464				ND	
118 Isopropylbenzene	105		12.812				ND	
121 Bromobenzene	156		13.300				ND	
122 1,1,2,2-Tetrachloroethane	83		13.317				ND	
124 1,2,3-Trichloropropane	110		13.369				ND	
123 N-Propylbenzene	120		13.543				ND	
126 2-Chlorotoluene	126		13.665				ND	
128 4-Chlorotoluene	126		13.856				ND	
127 1,3,5-Trimethylbenzene	105		13.874				ND	
129 tert-Butylbenzene	119		14.448				ND	
130 1,2,4-Trimethylbenzene	105		14.535				ND	
131 sec-Butylbenzene	134		14.848				ND	
132 1,3-Dichlorobenzene	146		15.005				ND	
133 4-Isopropyltoluene	119		15.127				ND	
134 1,4-Dichlorobenzene	146		15.162				ND	
138 1,2-Dichlorobenzene	146		15.805				ND	
137 n-Butylbenzene	91		15.858				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.936				ND	
141 1,2,4-Trichlorobenzene	180		17.876				ND	
142 Hexachlorobutadiene	225		18.067				ND	
143 Naphthalene	128		18.102				ND	
144 1,2,3-Trichlorobenzene	180		18.346				ND	

Reagents:

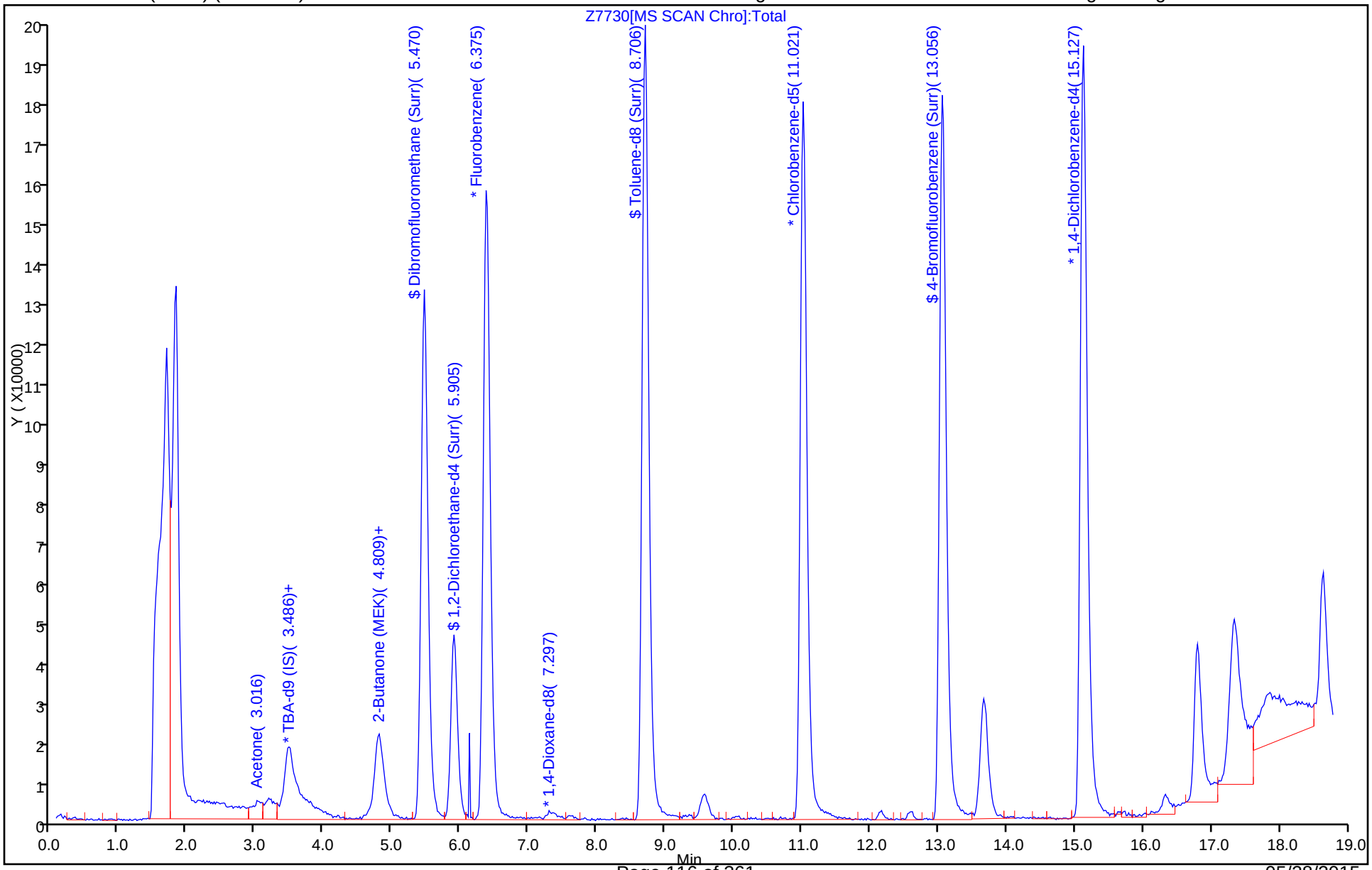
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7730.D				
Injection Date:	19-May-2015 13:42:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	280-68970-C-5	Lab Sample ID:	280-68970-5	Worklist Smp#:	24
Client ID:	54402-EB15-0515				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

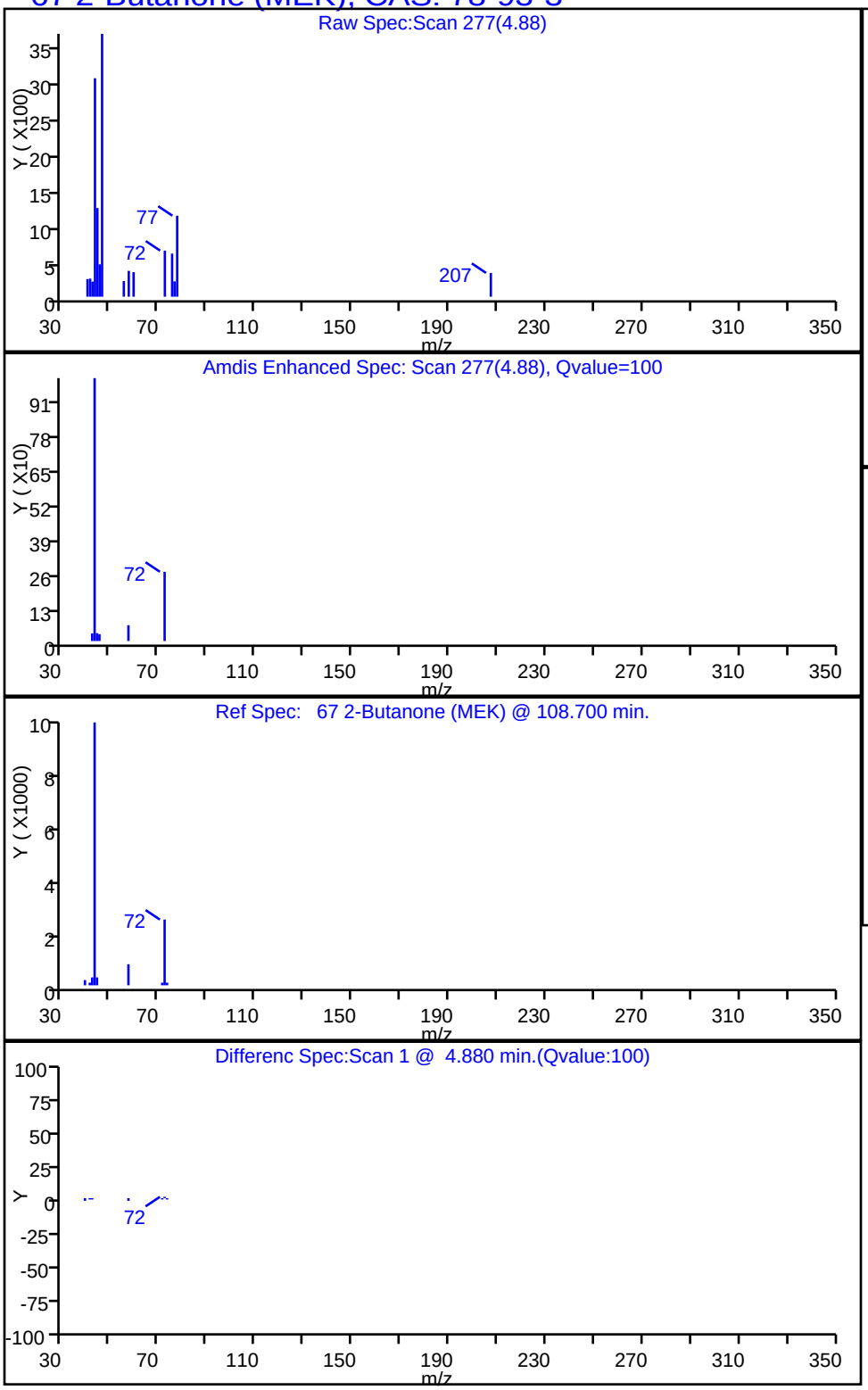


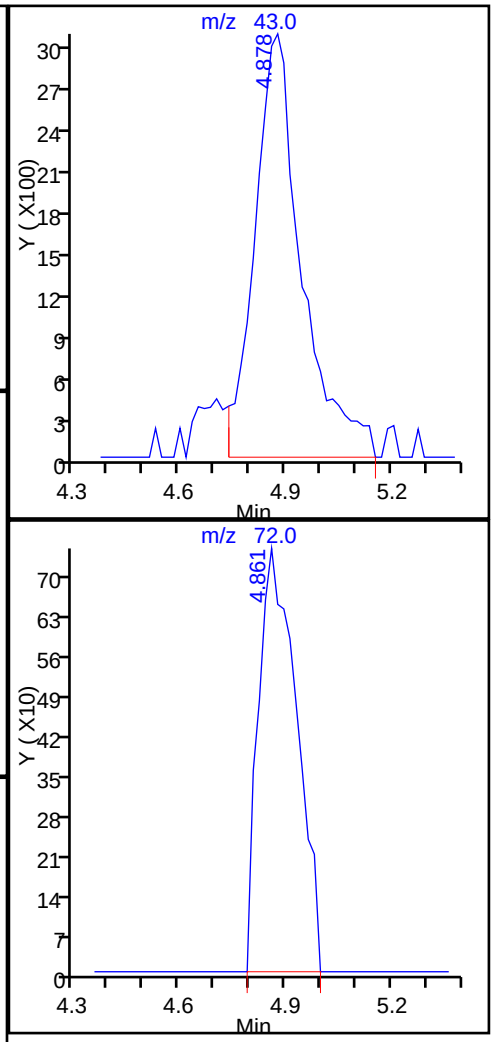
Report Date: 20-May-2015 06:56:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7730.D				
Injection Date:	19-May-2015 13:42:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-5	Lab Sample ID:	280-68970-5		
Client ID:	54402-EB15-0515				
Operator ID:	moanm	ALS Bottle#:	19	Worklist Smp#:	24
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

67 2-Butanone (MEK), CAS: 78-93-3



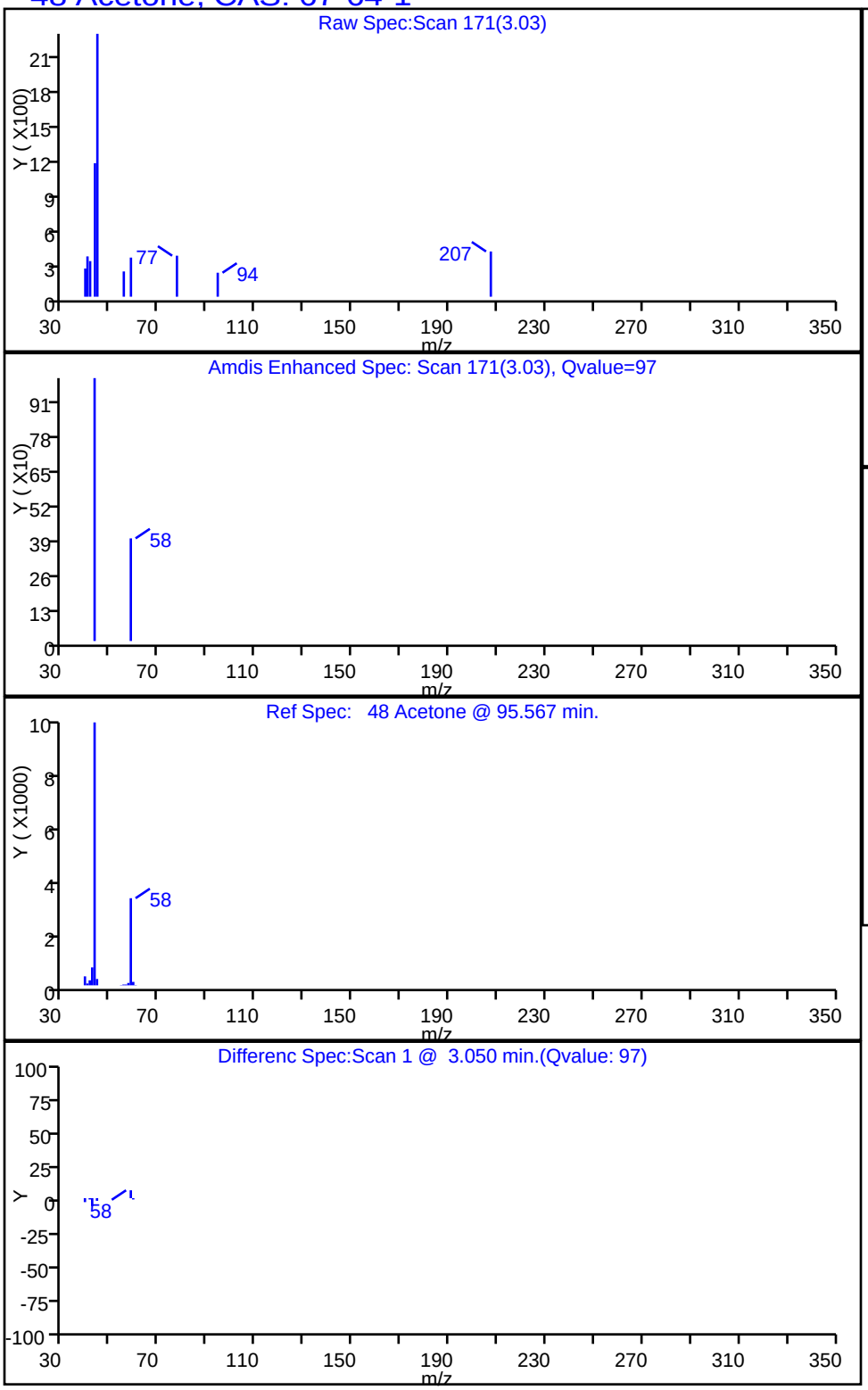


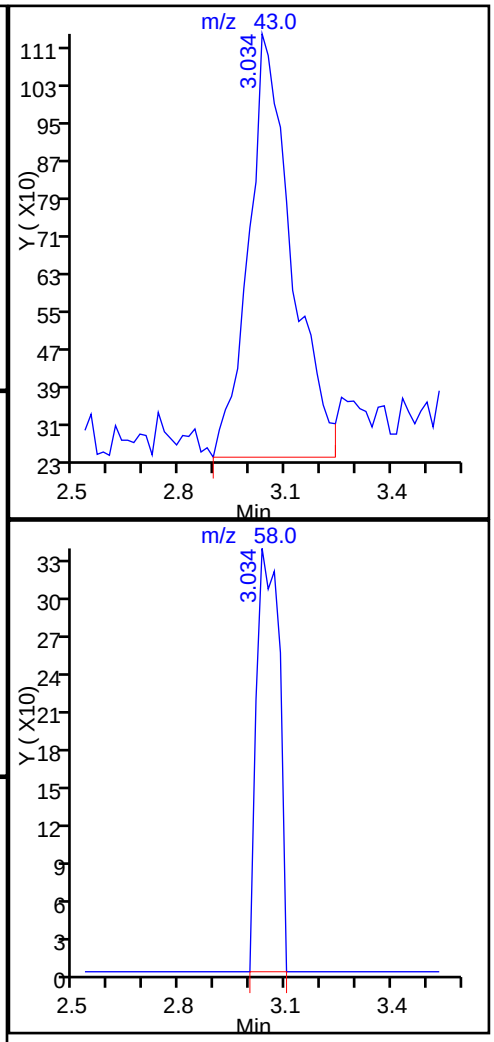
Report Date: 20-May-2015 06:56:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7730.D				
Injection Date:	19-May-2015 13:42:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-C-5	Lab Sample ID:	280-68970-5		
Client ID:	54402-EB15-0515				
Operator ID:	moanm	ALS Bottle#:	19	Worklist Smp#:	24
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

48 Acetone, CAS: 67-64-1





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54402-EB14-0515 | Lab Sample ID: 280-68970-6
Matrix: Water | Lab File ID: Z7731.D
Analysis Method: 8260B | Date Collected: 05/07/2015 17:40
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 14:05
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	17		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	10		10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: 54402-EB14-0515 | Lab Sample ID: 280-68970-6
Matrix: Water | Lab File ID: Z7731.D
Analysis Method: 8260B | Date Collected: 05/07/2015 17:40
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 14:05
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1

SDG No.:

Client Sample ID: 54402-EB14-0515 | Lab Sample ID: 280-68970-6

Matrix: Water | Lab File ID: Z7731.D

Analysis Method: 8260B | Date Collected: 05/07/2015 17:40

Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 14:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

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

Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	107		80-119
2037-26-5	Toluene-d8 (Surr)	102		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7731.D
Lims ID: 280-68970-A-6 Lab Sample ID: 280-68970-6
Client ID: 54402-EB14-0515
Sample Type: Client
Inject. Date: 19-May-2015 14:05:30 ALS Bottle#: 20 Worklist Smp#: 25
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-68970-A-6 ph<2
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:48:32 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: moanm Date: 20-May-2015 06:47:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.507	3.503	0.004	84	97774	250.0	
* 2 Fluorobenzene	96	6.378	6.392	-0.014	98	550463	12.5	
* 3 1,4-Dioxane-d8	96	7.370	7.292	0.078	44	5878	0	
* 4 Chlorobenzene-d5	119	11.024	11.020	0.004	85	146588	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.130	15.127	0.003	94	255084	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.473	5.469	0.004	94	297350	11.2	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.908	5.904	0.004	95	111253	11.0	
$ 10 Toluene-d8 (Surr)	98	8.710	8.706	0.004	92	530993	10.7	
$ 11 4-Bromofluorobenzene (Surr	95	13.060	13.056	0.004	91	295484	10.5	
27 Dichlorodifluoromethane	85		1.920				ND	
30 Chloromethane	50		1.989				ND	
32 Vinyl chloride	62		2.111				ND	
35 Bromomethane	94		2.337				ND	
36 Chloroethane	64		2.389				ND	
38 Trichlorofluoromethane	101		2.598				ND	
45 1,1-Dichloroethene	96		3.033				ND	
48 Acetone	43	3.054	3.051	0.003	95	6789	10.2	
50 Carbon disulfide	76		3.277				ND	
54 Methylene Chloride	84	3.472	3.468	0.004	34	3890	0.3141	
55 2-Methyl-2-propanol	59		3.573				ND	
57 trans-1,2-Dichloroethene	96		3.764				ND	
56 Methyl tert-butyl ether	73		3.781				ND	
62 1,1-Dichloroethane	63		4.199				ND	
65 cis-1,2-Dichloroethene	96		4.878				ND	
67 2-Butanone (MEK)	43	4.881	4.878	0.003	97	27309	16.9	
66 2,2-Dichloropropane	77		4.913				ND	
71 Chlorobromomethane	128		5.174				ND	
74 Chloroform	83		5.261				ND	
75 1,1,1-Trichloroethane	97		5.556				ND	
78 1,1-Dichloropropene	75		5.748				ND	
77 Carbon tetrachloride	117		5.783				ND	
82 1,2-Dichloroethane	62		6.009				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.026				ND	
85 Trichloroethene	95		6.914				ND	
90 1,2-Dichloropropane	63		7.209				ND	
92 Dibromomethane	93		7.366				ND	
94 Dichlorobromomethane	83		7.610				ND	
97 cis-1,3-Dichloropropene	75		8.271				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.532				ND	
99 Toluene	91		8.810				ND	
100 trans-1,3-Dichloropropene	75		9.123				ND	
102 1,1,2-Trichloroethane	97		9.419				ND	
104 1,3-Dichloropropane	76		9.680				ND	
103 Tetrachloroethene	164		9.698				ND	
105 2-Hexanone	43		9.854				ND	
107 Chlorodibromomethane	129		10.063				ND	
109 Ethylene Dibromide	107		10.237				ND	
111 Chlorobenzene	112		11.072				ND	
113 1,1,1,2-Tetrachloroethane	131		11.212				ND	
112 Ethylbenzene	106		11.281				ND	
114 m-Xylene & p-Xylene	106		11.490				ND	
115 o-Xylene	106		12.151				ND	
116 Styrene	104		12.169				ND	
117 Bromoform	173		12.464				ND	
118 Isopropylbenzene	105		12.812				ND	
121 Bromobenzene	156		13.300				ND	
122 1,1,2,2-Tetrachloroethane	83		13.317				ND	
124 1,2,3-Trichloropropane	110		13.369				ND	
123 N-Propylbenzene	120		13.543				ND	
126 2-Chlorotoluene	126		13.665				ND	
128 4-Chlorotoluene	126		13.856				ND	
127 1,3,5-Trimethylbenzene	105		13.874				ND	
129 tert-Butylbenzene	119		14.448				ND	
130 1,2,4-Trimethylbenzene	105		14.535				ND	
131 sec-Butylbenzene	134		14.848				ND	
132 1,3-Dichlorobenzene	146		15.005				ND	
133 4-Isopropyltoluene	119		15.127				ND	
134 1,4-Dichlorobenzene	146		15.162				ND	
138 1,2-Dichlorobenzene	146		15.805				ND	
137 n-Butylbenzene	91		15.858				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.936				ND	
141 1,2,4-Trichlorobenzene	180		17.876				ND	
142 Hexachlorobutadiene	225		18.067				ND	
143 Naphthalene	128		18.102				ND	
144 1,2,3-Trichlorobenzene	180		18.346				ND	

Reagents:

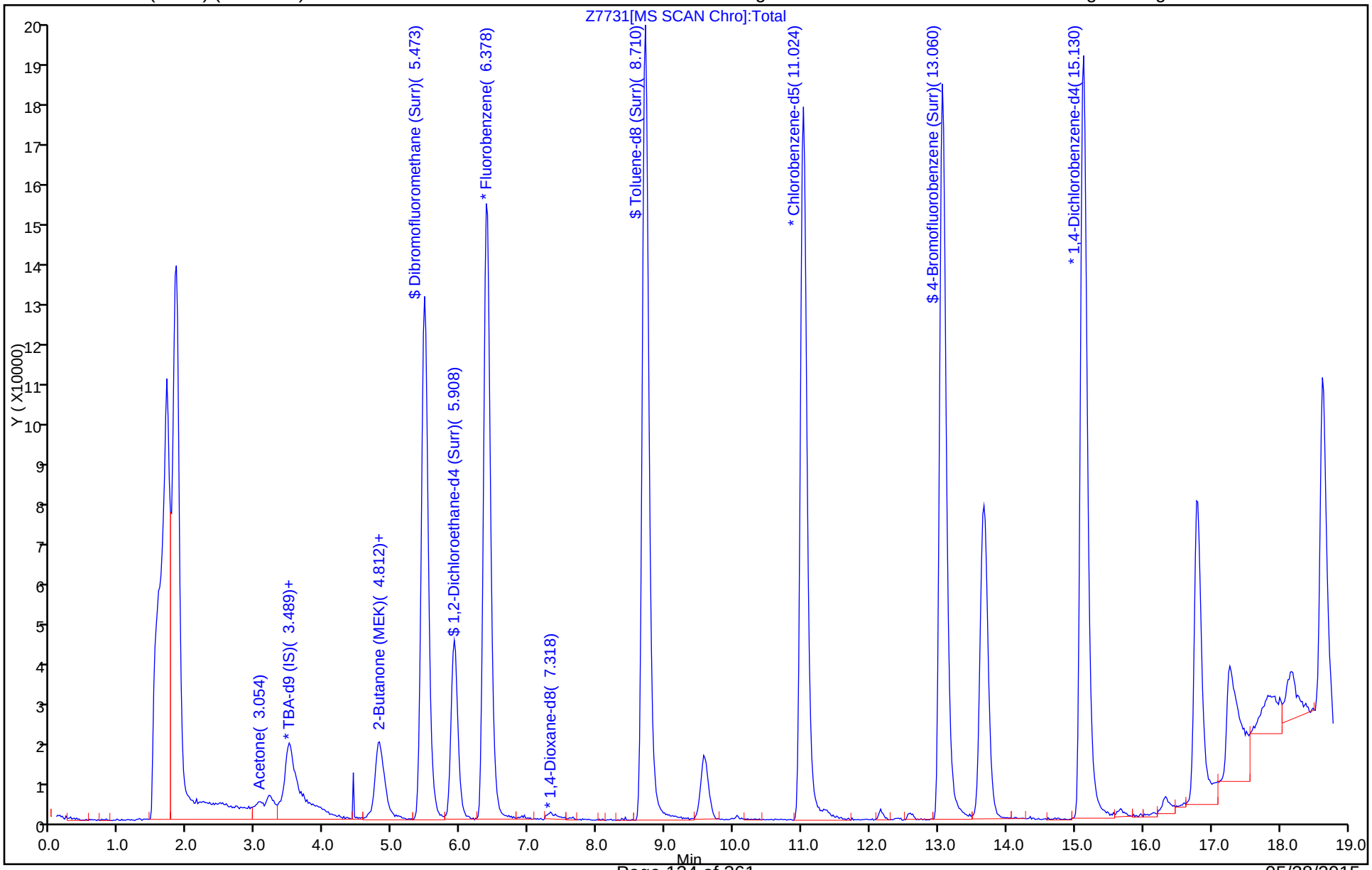
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7731.D				
Injection Date:	19-May-2015 14:05:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	280-68970-A-6	Lab Sample ID:	280-68970-6	Worklist Smp#:	25
Client ID:	54402-EB14-0515				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

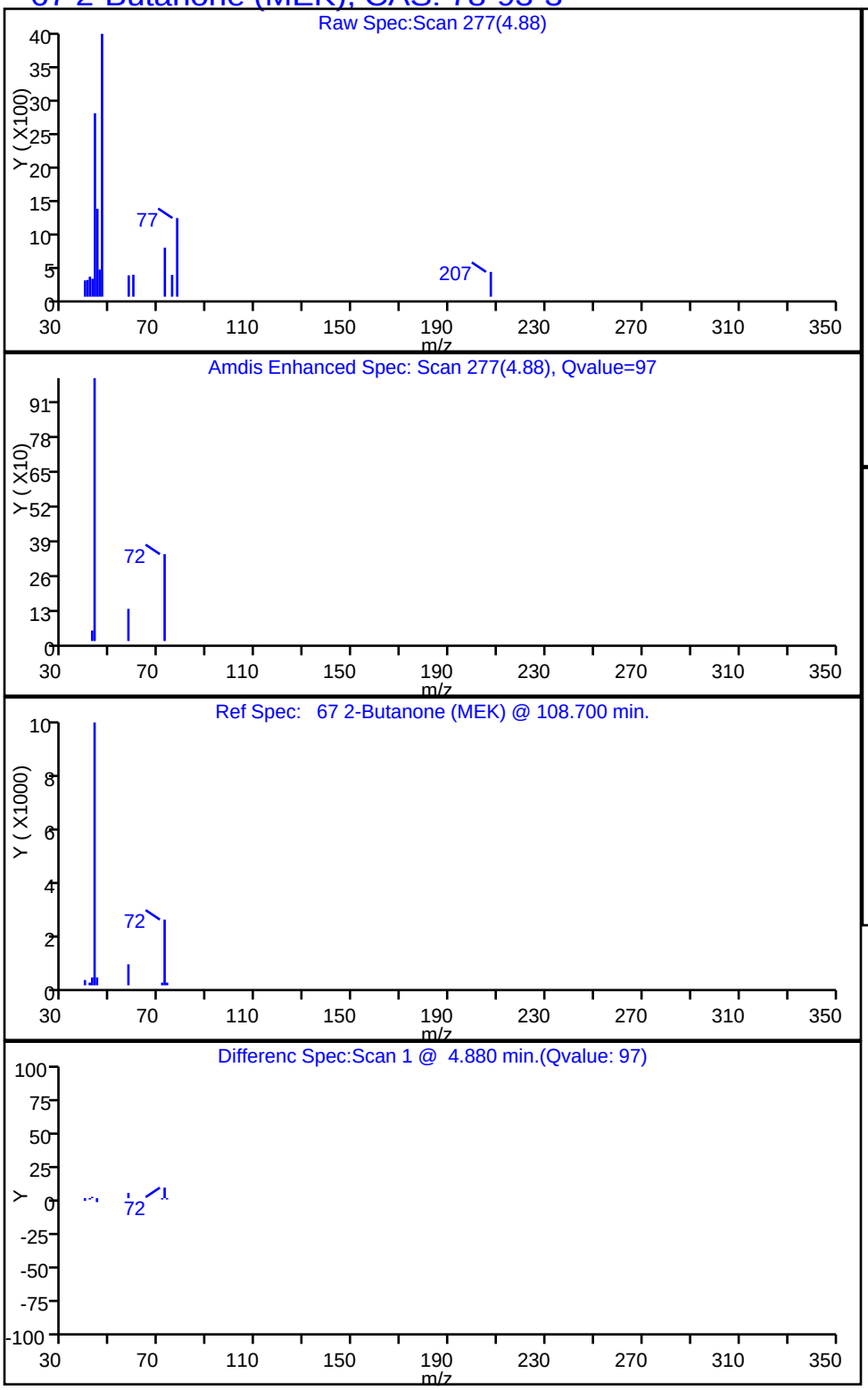


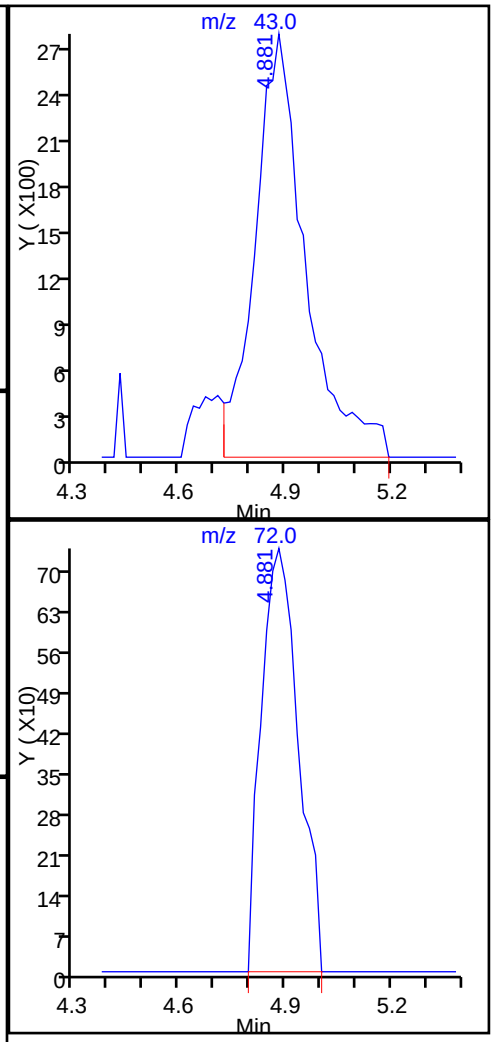
Report Date: 20-May-2015 06:56:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7731.D				
Injection Date:	19-May-2015 14:05:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-A-6	Lab Sample ID:	280-68970-6		
Client ID:	54402-EB14-0515				
Operator ID:	moanm	ALS Bottle#:	20	Worklist Smp#:	25
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

67 2-Butanone (MEK), CAS: 78-93-3



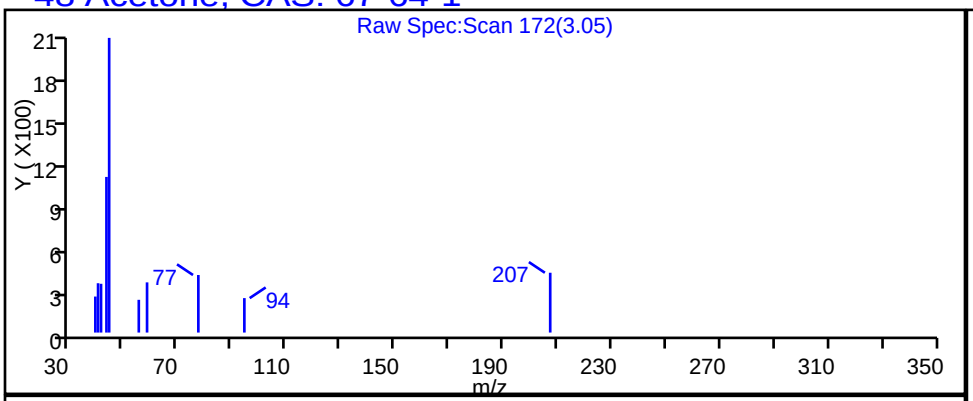


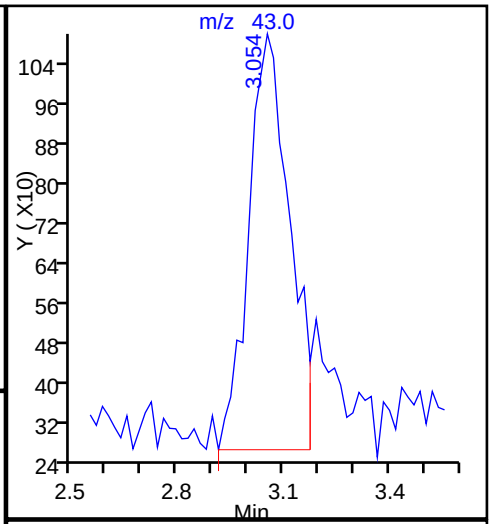
Report Date: 20-May-2015 06:56:33 Chrom Revision: 2.2 05-May-2015 11:39:10

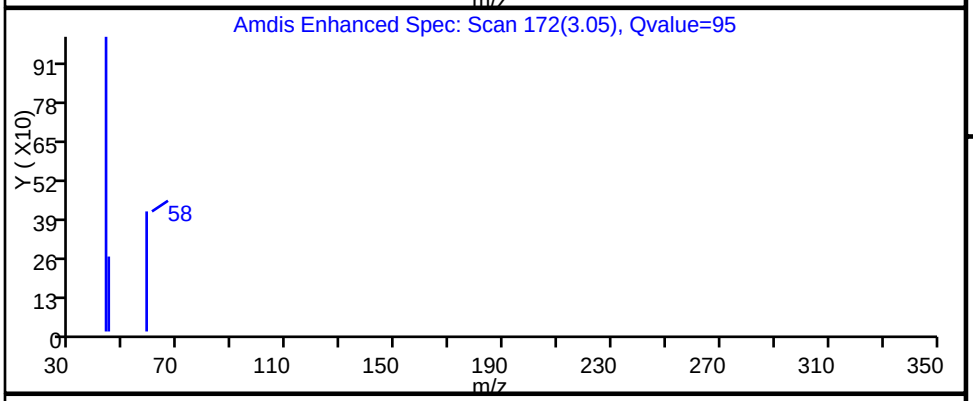
TestAmerica Denver

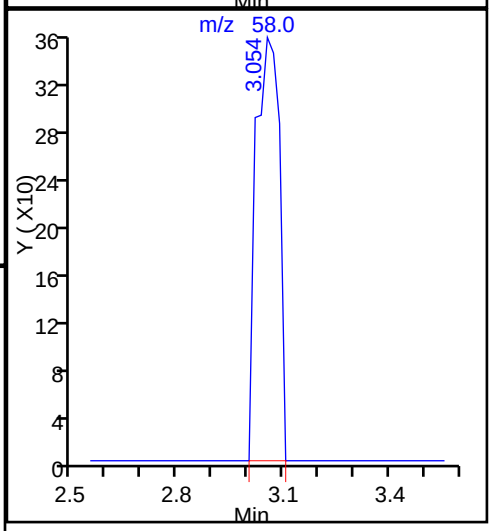
Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7731.D				
Injection Date:	19-May-2015 14:05:30	Instrument ID:	VMS_Z		
Lims ID:	280-68970-A-6	Lab Sample ID:	280-68970-6		
Client ID:	54402-EB14-0515				
Operator ID:	moanm	ALS Bottle#:	20	Worklist Smp#:	25
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

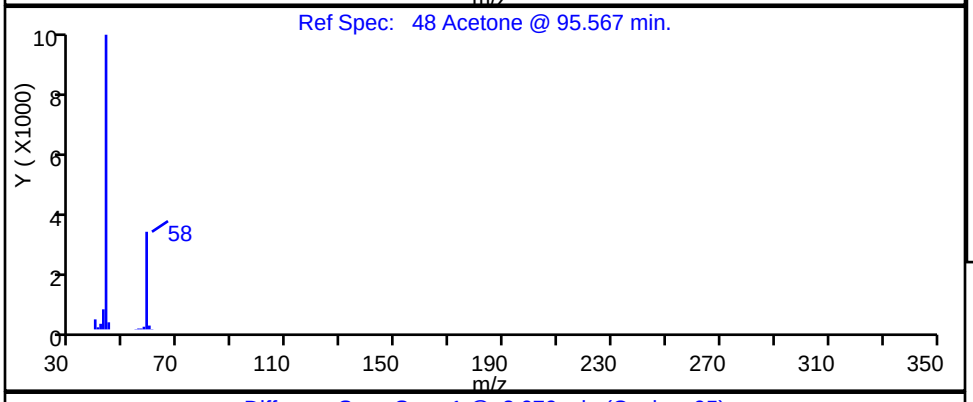
48 Acetone, CAS: 67-64-1

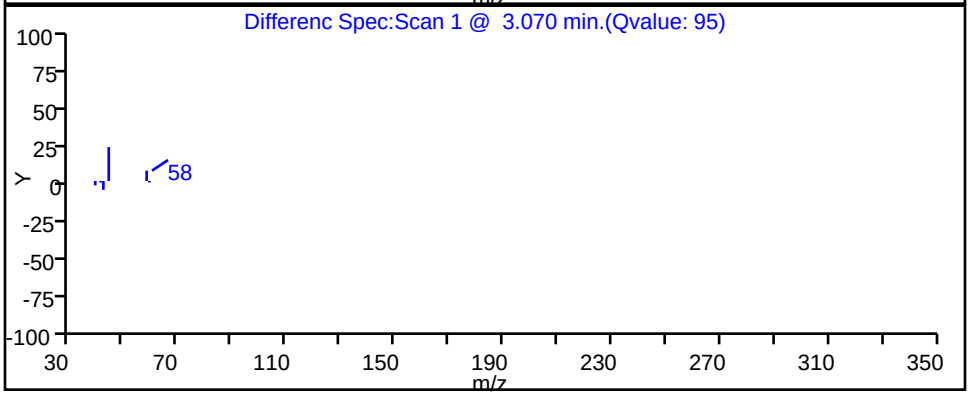












FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 274661

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2015 11:28 Calibration End Date: 04/27/2015 13:21 Calibration ID: 22133

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-274661/18	Z6773.D
Level 2	IC 280-274661/19	Z6774.D
Level 3	IC 280-274661/20	Z6775.D
Level 4	ICIS 280-274661/21	Z6776.D
Level 5	IC 280-274661/22	Z6777.D
Level 6	IC 280-274661/23	Z6778.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								
Acetonitrile	+++++ 0.0049	0.0045	0.0060	0.0047	0.0049	Ave		0.0050				11.8		15.0			
Isopropyl ether	0.2232 0.2455	0.2282	0.2608	0.2459	0.2399	Ave		0.2406				5.6		15.0			
2-Chloro-1,3-butadiene	0.4796 0.4637	0.4433	0.4974	0.4799	0.4464	Ave		0.4684				4.5		15.0			
Tert-butyl ethyl ether	0.8498 0.7717	0.7763	0.8444	0.7658	0.7595	Ave		0.7946				5.2		15.0			
Propionitrile	+++++ 0.0074	0.0083	0.0091	0.0082	0.0074	Ave		0.0081				8.6		15.0			
Ethyl acetate	+++++ 0.0892	0.0786	0.0941	0.0878	0.0894	Ave		0.0878				6.5		15.0			
Methacrylonitrile	0.0475 0.0528	0.0485	0.0555	0.0520	0.0537	Ave		0.0517				6.0		15.0			
Tert-amyl methyl ether	0.6939 0.6681	0.6748	0.7251	0.6646	0.6668	Ave		0.6822				3.5		15.0			
n-Butanol	+++++ 0.0021	0.0017	0.0021	0.0019	0.0021	Ave		0.0020				9.0		15.0			
Methyl methacrylate	0.0352 0.0423	0.0385	0.0444	0.0422	0.0421	Ave		0.0408				8.2		15.0			
2-Nitropropane	+++++ 0.0211	0.0217	0.0241	0.0221	0.0206	Ave		0.0219				6.2		15.0			
cis-1,4-Dichloro-2-butene	0.1174 0.1004	0.1031	0.1167	0.1046	0.1020	Ave		0.1074				7.1		15.0			
1,2,3-Trimethylbenzene	1.9659 2.2087	1.9697	2.2410	2.1617	2.1310	Ave		2.1130				5.6		15.0			
Dibromofluoromethane (Surr)	+++++ 0.5375	0.6438	0.5798	0.5428	0.5219	Ave		0.5651				8.6		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2056	0.2837	0.2329	0.2171	0.2015	Ave		0.2282				14.6		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 274661

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2015 11:28 Calibration End Date: 04/27/2015 13:21 Calibration ID: 22133

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								
Toluene-d8 (Surr)	+++++ 4.2145	5.1360	4.5670	4.4332	4.1966	Ave		4.5095				8.5		15.0			
4-Bromofluorobenzene (Surr)	+++++ 1.3022	1.6502	1.4927	1.3282	1.2560	Ave		1.4058				11.6		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 274661

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2015 11:28 Calibration End Date: 04/27/2015 13:21 Calibration ID: 22133

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-274661/18	Z6773.D
Level 2	IC 280-274661/19	Z6774.D
Level 3	IC 280-274661/20	Z6775.D
Level 4	ICIS 280-274661/21	Z6776.D
Level 5	IC 280-274661/22	Z6777.D
Level 6	IC 280-274661/23	Z6778.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
Acetonitrile	FB	Ave	+++++ 214863	6548	21913	33702	110004	+++++ 750	25.0	62.5	125	375
Isopropyl ether	FB	Ave	16599 1066526	33394	95054	176635	534134	1.25 75.0	2.50	6.25	12.5	37.5
2-Chloro-1,3-butadiene	FB	Ave	28533 1611823	51887	145034	275796	795276	1.00 60.0	2.00	5.00	10.0	30.0
Tert-butyl ethyl ether	FB	Ave	63198 3352492	113576	307762	550067	1691172	1.25 75.0	2.50	6.25	12.5	37.5
Propionitrile	FB	Ave	+++++ 323457	12197	33105	58619	164969	+++++ 750	25.0	62.5	125	375
Ethyl acetate	FB	Ave	+++++ 620096	18393	54849	100933	318541	+++++ 120	4.00	10.0	20.0	60.0
Methacrylonitrile	FB	Ave	28272 1836209	56812	161789	299078	957300	10.0 600	20.0	50.0	100	300
Tert-amyl methyl ether	FB	Ave	51602 2902753	98727	264266	477411	1484831	1.25 75.0	2.50	6.25	12.5	37.5
n-Butanol	FB	Ave	+++++ 182597	4950	15031	27767	94716	+++++ 1500	50.0	125	250	750
Methyl methacrylate	FB	Ave	4186 293982	9004	25904	48531	150167	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Ave	+++++ 146763	5072	14063	25442	73412	+++++ 120	4.00	10.0	20.0	60.0
cis-1,4-Dichloro-2-butene	DCB	Ave	2883 145256	5073	14429	25239	77471	1.00 60.0	2.00	5.00	10.0	30.0
1,2,3-Trimethylbenzene	DCB	Ave	48257 3196937	96882	277104	521657	1618889	1.00 60.0	2.00	5.00	10.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 934013	75347	169047	311918	619752	+++++ 30.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 357211	33203	67920	124779	239256	+++++ 30.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	+++++ 1733116	142477	319697	596484	1168221	+++++ 30.0	2.00	5.00	10.0	20.0

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 274661

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2015 11:28 Calibration End Date: 04/27/2015 13:21 Calibration ID: 22133

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
4-Bromofluorobenzene (Surr)	DCB	Ave	+++++ 942404	81163	184575	320514	636132	+++++ 30.0	2.00	5.00	10.0	20.0

Curve Type Legend:
Ave = Average ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6773.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Apr-2015 11:28:30 ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:16 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 13:07:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.457	3.487	-0.030	96	129754	250.0	250.0	
* 2 Fluorobenzene	96	6.364	6.377	-0.013	98	743646	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.012	11.007	0.005	87	173309	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.103	15.115	-0.012	98	306843	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.442	5.469	-0.027	93	41734	1.00	1.24	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.877	5.905	-0.028	93	18542	1.00	1.37	
$ 10 Toluene-d8 (Surr)	98	8.697	8.690	0.007	93	81624	1.00	1.31	
$ 11 4-Bromofluorobenzene (Surr	95	13.049	13.042	0.007	88	45272	1.00	1.31	
34 Ethylene oxide	43	2.274	2.301	-0.027	99	58609	200.0	212.2	
39 Ethanol	45		2.684				ND	ND	
42 Propene oxide	58	2.848	2.876	-0.028	96	52488	50.0	46.2	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41		3.276				ND	ND	
60 Isopropyl ether	87	4.275	4.303	-0.028	97	16599	1.25	1.16	
63 2-Chloro-1,3-butadiene	53	4.293	4.303	-0.010	89	28533	1.00	1.02	
64 Tert-butyl ethyl ether	59	4.711	4.738	-0.027	98	63198	1.25	1.34	
69 Propionitrile	54		4.912				ND	ND	
68 Ethyl acetate	43		4.947				ND	ND	
73 Methacrylonitrile	41	5.094	5.121	-0.027	93	28272	10.0	9.19	
83 Tert-amyl methyl ether	73	6.190	6.183	0.007	85	51602	1.25	1.27	M
86 n-Butanol	56		6.792				ND	ND	
88 Ethyl acrylate	55	6.817	6.792	0.025	26	201	NC	NC	
91 Methyl methacrylate	100	7.391	7.384	0.007	90	4186	2.00	1.73	
95 2-Nitropropane	41		7.889				ND	ND	
106 Tetrahydrothiophene	60	10.020	10.030	-0.010	84	6755	1.00	0.9391	
120 cis-1,4-Dichloro-2-butene	53	12.892	12.885	0.007	0	2883	1.00	1.09	
135 1,2,3-Trimethylbenzene	105	15.259	15.270	-0.011	95	48257	1.00	0.9304	
140 1,3,5-Trichlorobenzene	180	17.209	17.202	0.007	95	28221	1.00	0.9628	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MV-ARCH SS A_00042	Amount Added:	0.08	Units: uL
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Supp A_00011	Amount Added:	0.50	Units: uL

Report Date: 27-Apr-2015 20:56:17 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6773.D

Injection Date: 27-Apr-2015 11:28:30 Instrument ID: VMS_Z Operator ID: moanm

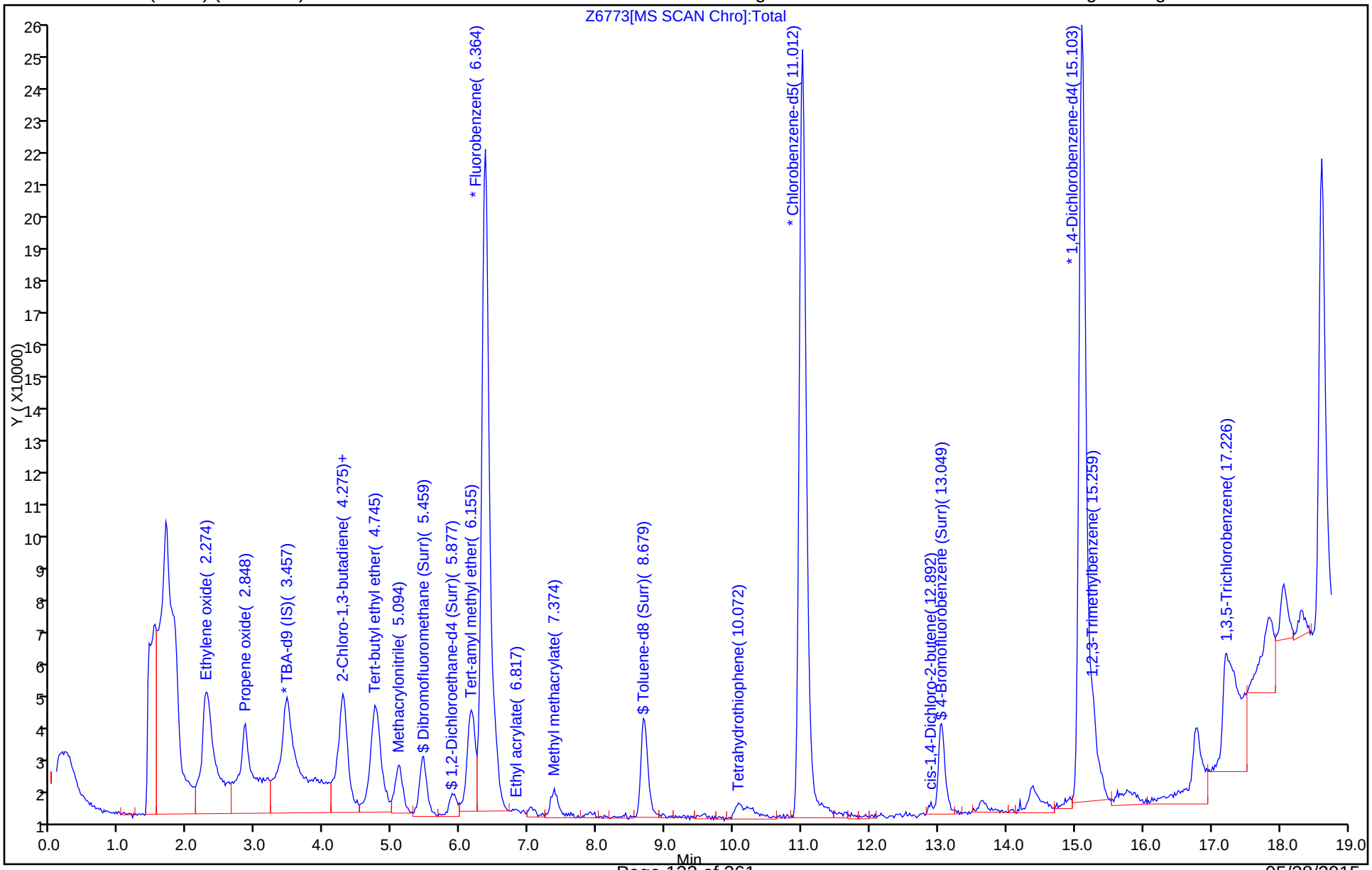
Lims ID: ic Worklist Smp#: 18

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 13

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

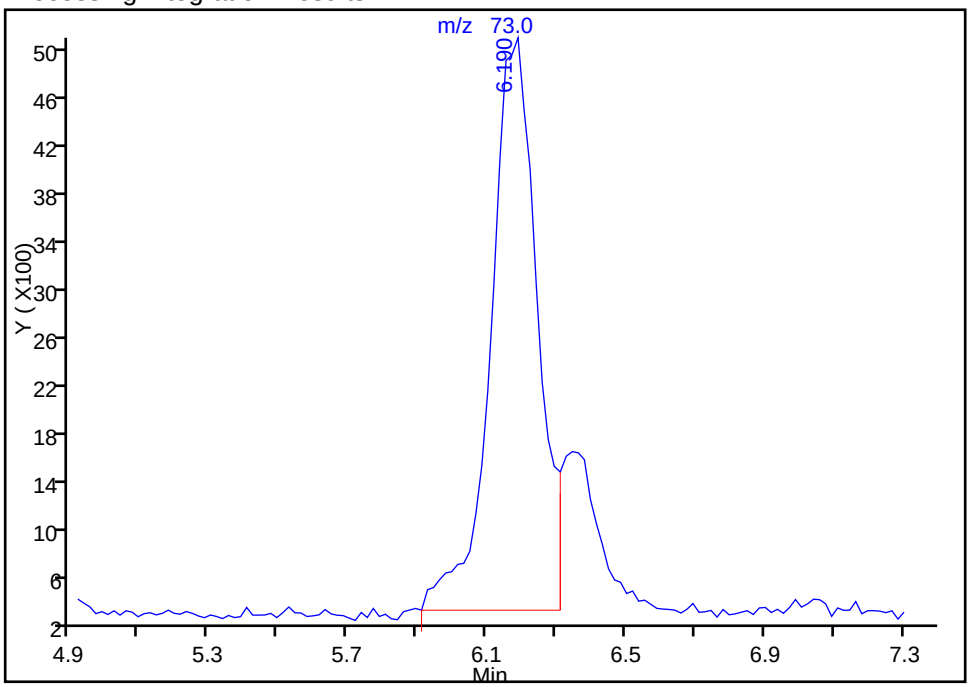
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6773.D				
Injection Date:	27-Apr-2015 11:28:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

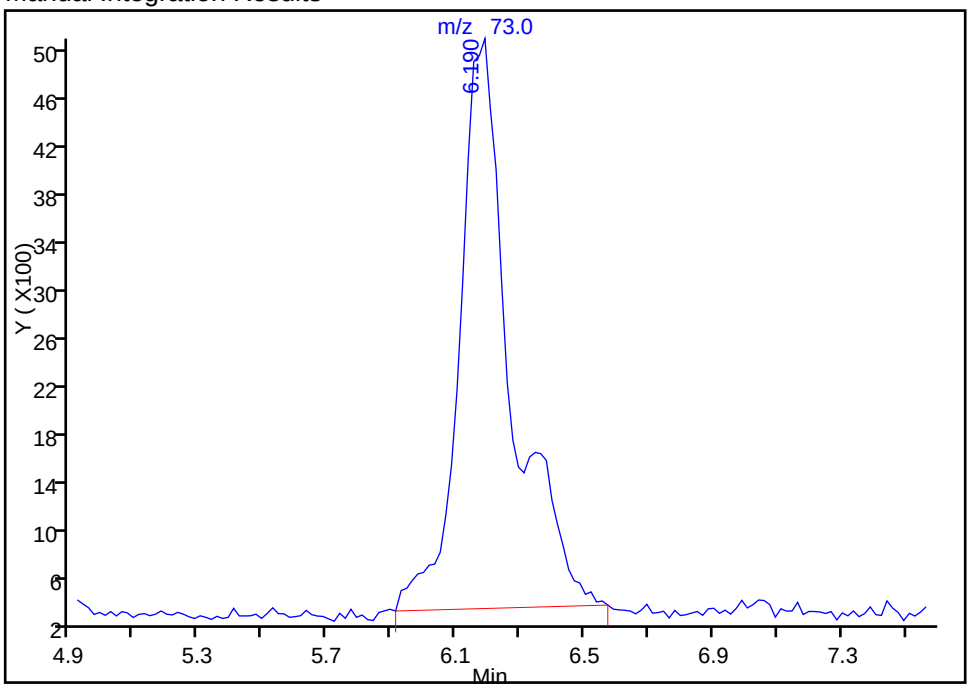
Processing Integration Results

RT: 6.19
Area: 43749
Amount: 1.152088
Amount Units: ug/l



Manual Integration Results

RT: 6.19
Area: 51602
Amount: 1.271390
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:40:02
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6774.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Apr-2015 11:51:30 ALS Bottle#: 14 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 21:01:01 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 13:07:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.485	0.006	94	139671	250.0	250.0	
* 2 Fluorobenzene	96	6.381	6.375	0.006	98	731523	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.011	11.005	0.006	87	173380	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.102	15.113	-0.011	95	307406	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.476	5.469	0.007	94	75347	2.00	2.28	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.911	5.905	0.006	93	33203	2.00	2.49	
$ 10 Toluene-d8 (Surr)	98	8.696	8.690	0.006	93	142477	2.00	2.28	
$ 11 4-Bromofluorobenzene (Surr	95	13.048	13.042	0.006	89	81163	2.00	2.35	
34 Ethylene oxide	43	2.290	2.301	-0.011	99	99298	400.0	365.5	
39 Ethanol	45		2.684				ND	ND	
42 Propene oxide	58	2.864	2.876	-0.012	96	106309	100.0	95.2	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.300	3.276	0.024	91	6548	25.0	22.3	M
60 Isopropyl ether	87	4.292	4.303	-0.011	98	33394	2.50	2.37	
63 2-Chloro-1,3-butadiene	53	4.309	4.303	0.006	89	51887	2.00	1.89	
64 Tert-butyl ethyl ether	59	4.727	4.738	-0.011	98	113576	2.50	2.44	
69 Propionitrile	54	4.918	4.912	0.006	57	12197	25.0	25.8	
68 Ethyl acetate	43	4.936	4.947	-0.011	99	18393	4.00	3.58	
73 Methacrylonitrile	41	5.110	5.121	-0.011	93	56812	20.0	18.8	
83 Tert-amyl methyl ether	73	6.189	6.183	0.006	96	98727	2.50	2.47	M
86 n-Butanol	56	6.798	6.792	0.006	89	4950	50.0	42.7	
88 Ethyl acrylate	55	6.798	6.792	0.006	28	1215	NC	NC	
91 Methyl methacrylate	100	7.390	7.384	0.006	92	9004	4.00	3.77	
95 2-Nitropropane	41	7.895	7.889	0.006	94	5072	4.00	3.95	
106 Tetrahydrothiophene	60	10.019	10.030	-0.011	90	12971	2.00	2.24	
120 cis-1,4-Dichloro-2-butene	53	12.891	12.885	0.006	0	5073	2.00	1.92	
135 1,2,3-Trimethylbenzene	105	15.276	15.270	0.006	96	96882	2.00	1.86	
140 1,3,5-Trichlorobenzene	180	17.208	17.202	0.006	94	54830	2.00	1.87	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

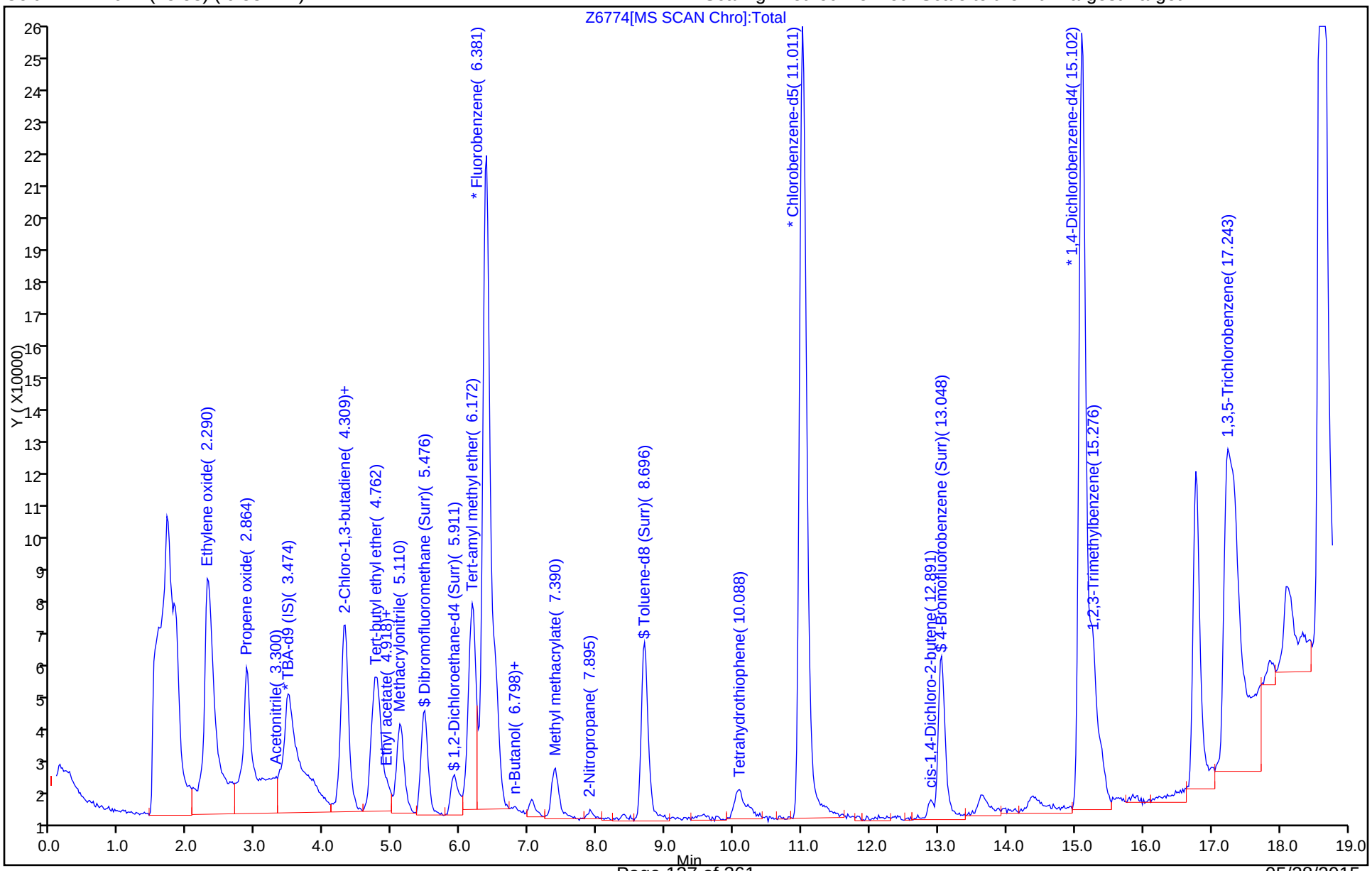
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.16	Units: uL
MV-Supp A_00011	Amount Added:	1.00	Units: uL

Report Date: 27-Apr-2015 21:01:01 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6774.D				
Injection Date:	27-Apr-2015 11:51:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	19
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

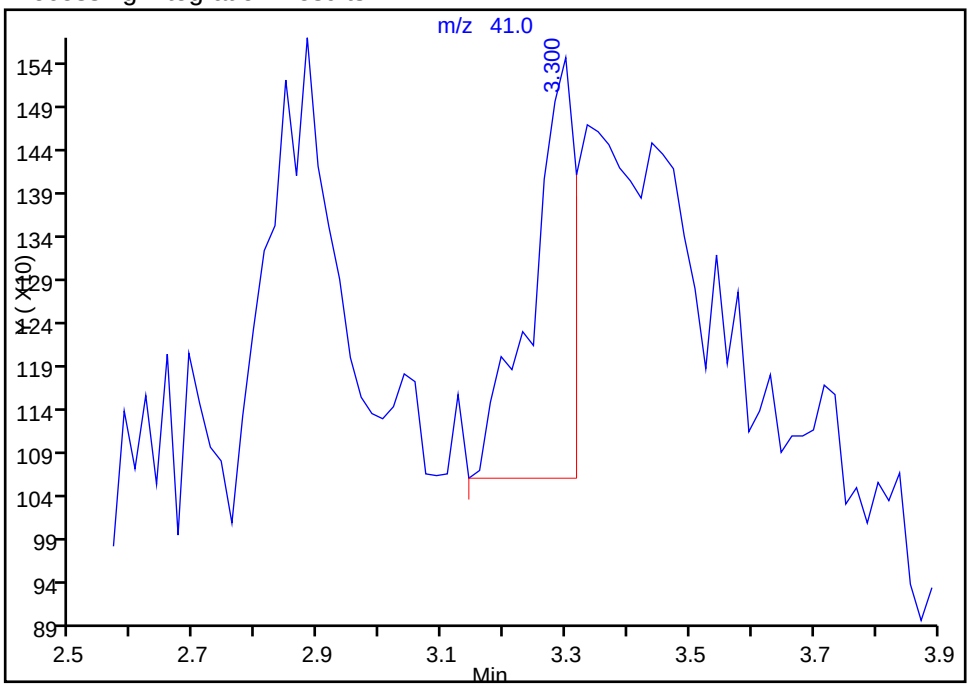
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6774.D				
Injection Date:	27-Apr-2015 11:51:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

53 Acetonitrile, CAS: 75-05-8

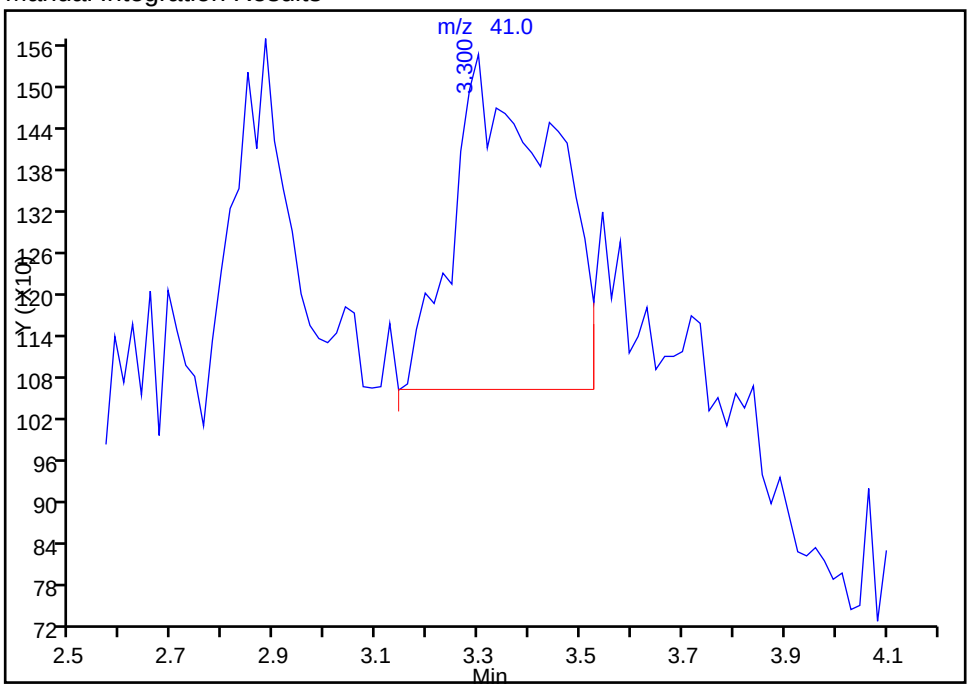
Processing Integration Results

RT: 3.30
Area: 2415
Amount: 17.304155
Amount Units: ug/l



Manual Integration Results

RT: 3.30
Area: 6548
Amount: 22.319387
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:43:47
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

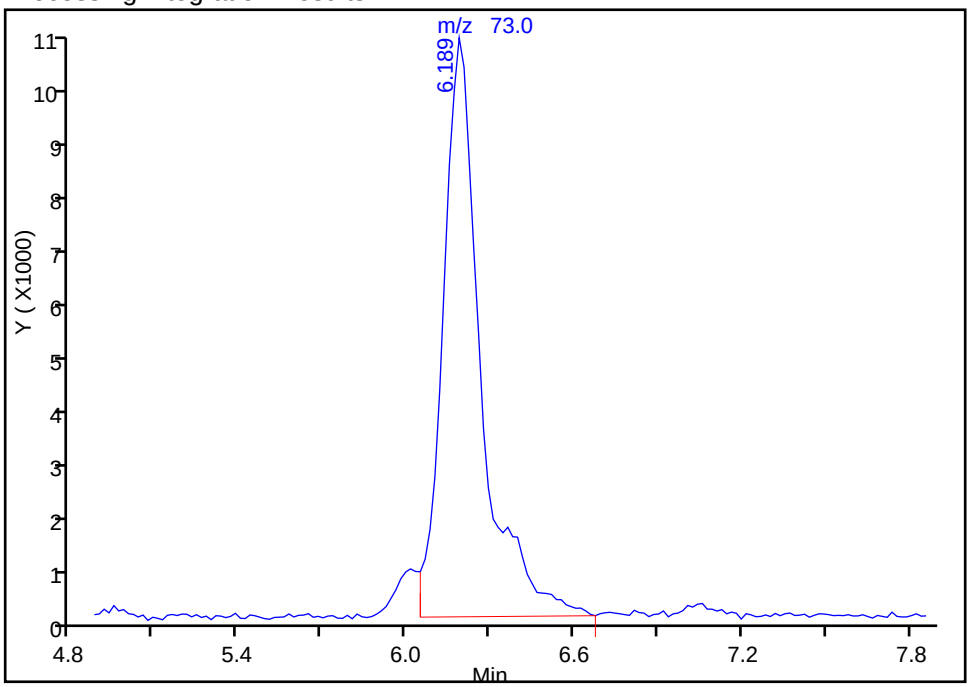
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6774.D				
Injection Date:	27-Apr-2015 11:51:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

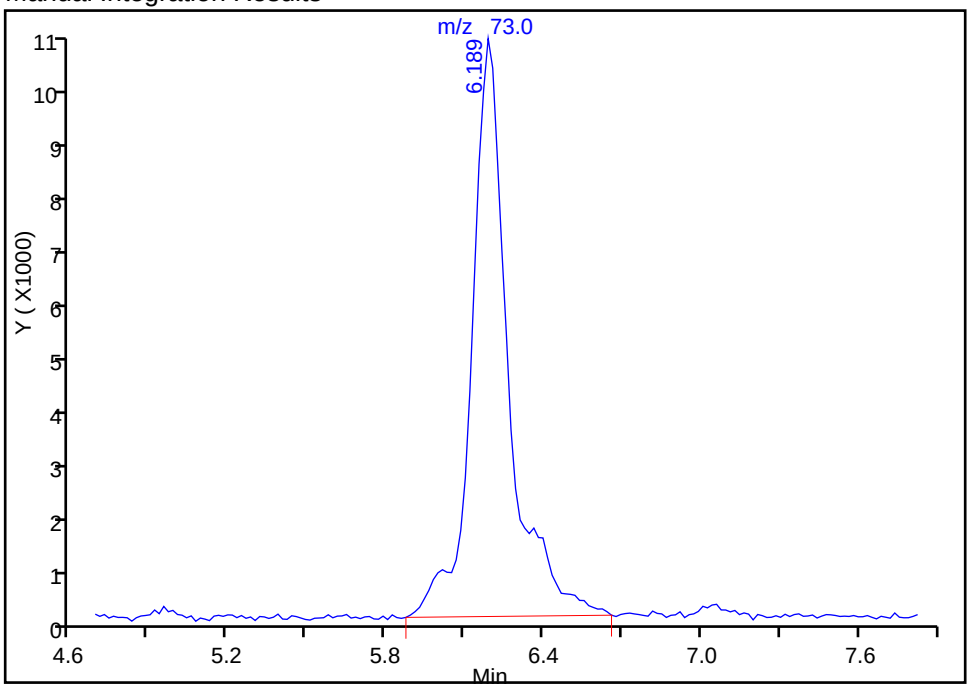
Processing Integration Results

RT: 6.19
Area: 95236
Amount: 2.481099
Amount Units: ug/l



Manual Integration Results

RT: 6.19
Area: 98727
Amount: 2.472785
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:40:13
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6775.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Apr-2015 12:13:30 ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:18 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 13:10:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.474	3.487	-0.013	95	139018	250.0	250.0	
* 2 Fluorobenzene	96	6.381	6.377	0.004	99	728927	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.011	11.007	0.004	87	175003	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.102	15.115	-0.013	95	309132	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.458	5.469	-0.011	94	169047	5.00	5.13	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.893	5.905	-0.012	93	67920	5.00	5.10	
$ 10 Toluene-d8 (Surr)	98	8.696	8.690	0.006	93	319697	5.00	5.06	
$ 11 4-Bromofluorobenzene (Surr	95	13.030	13.042	-0.012	85	184575	5.00	5.31	
34 Ethylene oxide	43	2.308	2.301	0.007	99	280205	1000.0	1035.2	
39 Ethanol	45		2.684				ND	ND	
42 Propene oxide	58	2.865	2.876	-0.011	96	302131	250.0	271.5	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.300	3.276	0.024	98	21913	62.5	75.0	
60 Isopropyl ether	87	4.292	4.303	-0.011	97	95054	6.25	6.78	
63 2-Chloro-1,3-butadiene	53	4.309	4.303	0.006	89	145034	5.00	5.31	
64 Tert-butyl ethyl ether	59	4.727	4.738	-0.011	98	307762	6.25	6.64	
69 Propionitrile	54	4.936	4.912	0.024	50	33105	62.5	70.2	
68 Ethyl acetate	43	4.953	4.947	0.006	96	54849	10.0	10.7	
73 Methacrylonitrile	41	5.110	5.121	-0.011	93	161789	50.0	53.7	
83 Tert-amyl methyl ether	73	6.189	6.183	0.006	97	264266	6.25	6.64	M
86 n-Butanol	56	6.799	6.792	0.007	86	15031	125.0	130.0	
88 Ethyl acrylate	55	6.799	6.792	0.007	26	3048	NC	NC	
91 Methyl methacrylate	100	7.390	7.384	0.006	94	25904	10.0	10.9	
95 2-Nitropropane	41	7.895	7.889	0.006	94	14063	10.0	11.0	
106 Tetrahydrothiophene	60	10.019	10.030	-0.011	91	27007	5.00	5.12	
120 cis-1,4-Dichloro-2-butene	53	12.891	12.885	0.006	0	14429	5.00	5.43	
135 1,2,3-Trimethylbenzene	105	15.258	15.270	-0.012	97	277104	5.00	5.30	
140 1,3,5-Trichlorobenzene	180	17.208	17.202	0.006	95	159324	5.00	5.40	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

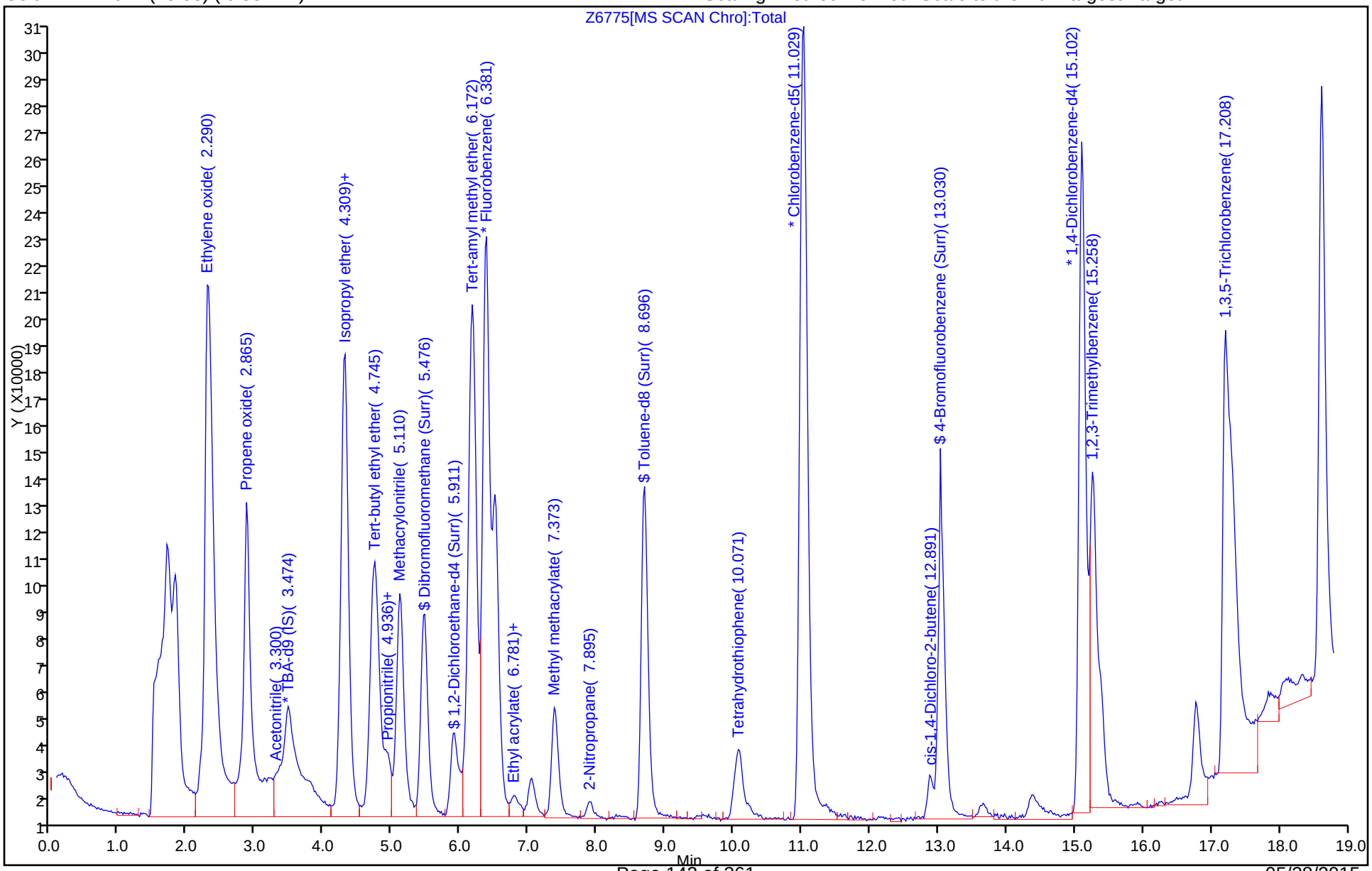
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.40	Units: uL
MV-Supp A_00011	Amount Added:	2.50	Units: uL

Report Date: 27-Apr-2015 20:56:19 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6775.D				
Injection Date:	27-Apr-2015 12:13:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	20
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



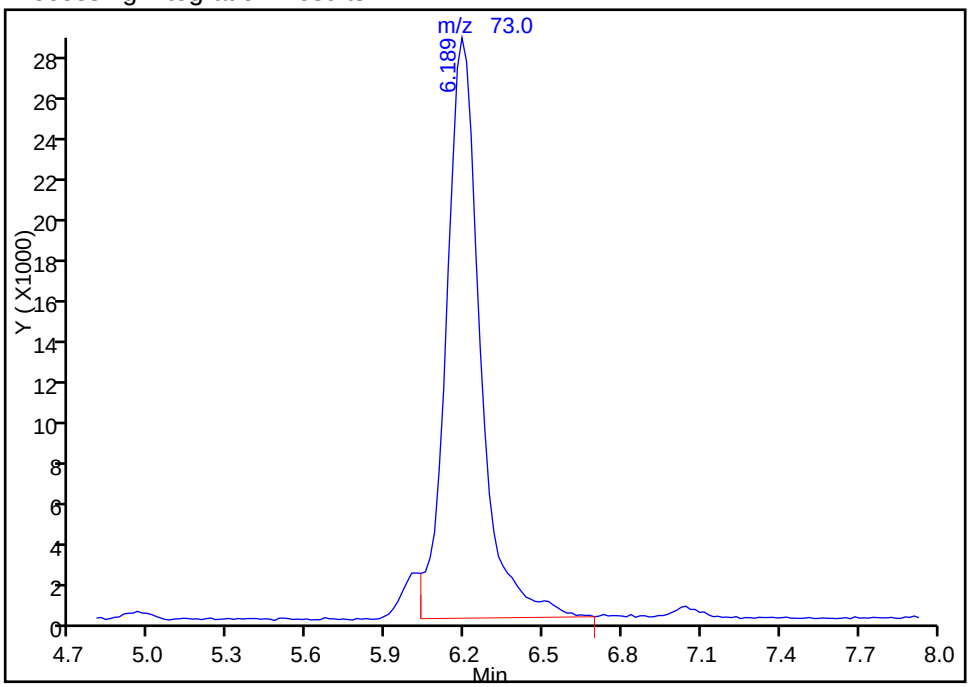
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6775.D				
Injection Date:	27-Apr-2015 12:13:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

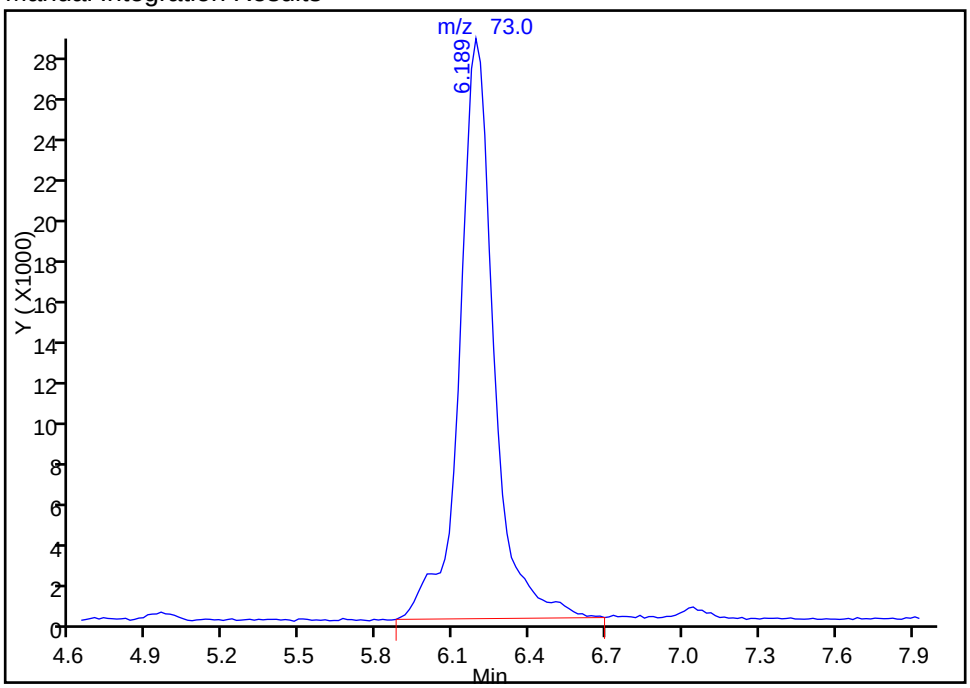
Processing Integration Results

RT: 6.19
Area: 255200
Amount: 6.631965
Amount Units: ug/l



Manual Integration Results

RT: 6.19
Area: 264266
Amount: 6.642563
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:40:23
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6776.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 27-Apr-2015 12:36:30 ALS Bottle#: 16 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icis
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:20 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 13:09:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.485	3.485	0.000	94	129478	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	99	718308	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.005	11.005	0.000	87	168188	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	94	301653	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.469	5.469	0.000	94	311918	10.0	9.60	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.905	5.905	0.000	93	124779	10.0	9.52	
$ 10 Toluene-d8 (Surr)	98	8.690	8.690	0.000	93	596484	10.0	9.83	
$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	89	320514	10.0	9.45	
34 Ethylene oxide	43	2.301	2.301	0.000	99	525989	2000.0	1971.9	
39 Ethanol	45		2.684				ND	ND	
42 Propene oxide	58	2.876	2.876	0.000	96	550597	500.0	502.0	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.276	3.276	0.000	100	33702	125.0	117.0	
60 Isopropyl ether	87	4.303	4.303	0.000	98	176635	12.5	12.8	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	88	275796	10.0	10.2	
64 Tert-butyl ethyl ether	59	4.738	4.738	0.000	98	550067	12.5	12.0	
69 Propionitrile	54	4.912	4.912	0.000	98	58619	125.0	126.1	
68 Ethyl acetate	43	4.947	4.947	0.000	99	100933	20.0	20.0	
73 Methacrylonitrile	41	5.121	5.121	0.000	93	299078	100.0	100.7	
83 Tert-amyl methyl ether	73	6.183	6.183	0.000	98	477411	12.5	12.2	M
86 n-Butanol	56	6.792	6.792	0.000	86	27767	250.0	243.7	
88 Ethyl acrylate	55	6.792	6.792	0.000	27	6529	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	93	48531	20.0	20.7	
95 2-Nitropropane	41	7.889	7.889	0.000	97	25442	20.0	20.2	
106 Tetrahydrothiophene	60	10.030	10.030	0.000	92	47477	10.0	9.76	
120 cis-1,4-Dichloro-2-butene	53	12.885	12.885	0.000	0	25239	10.0	9.74	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	97	521657	10.0	10.2	
140 1,3,5-Trichlorobenzene	180	17.202	17.202	0.000	97	291918	10.0	10.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

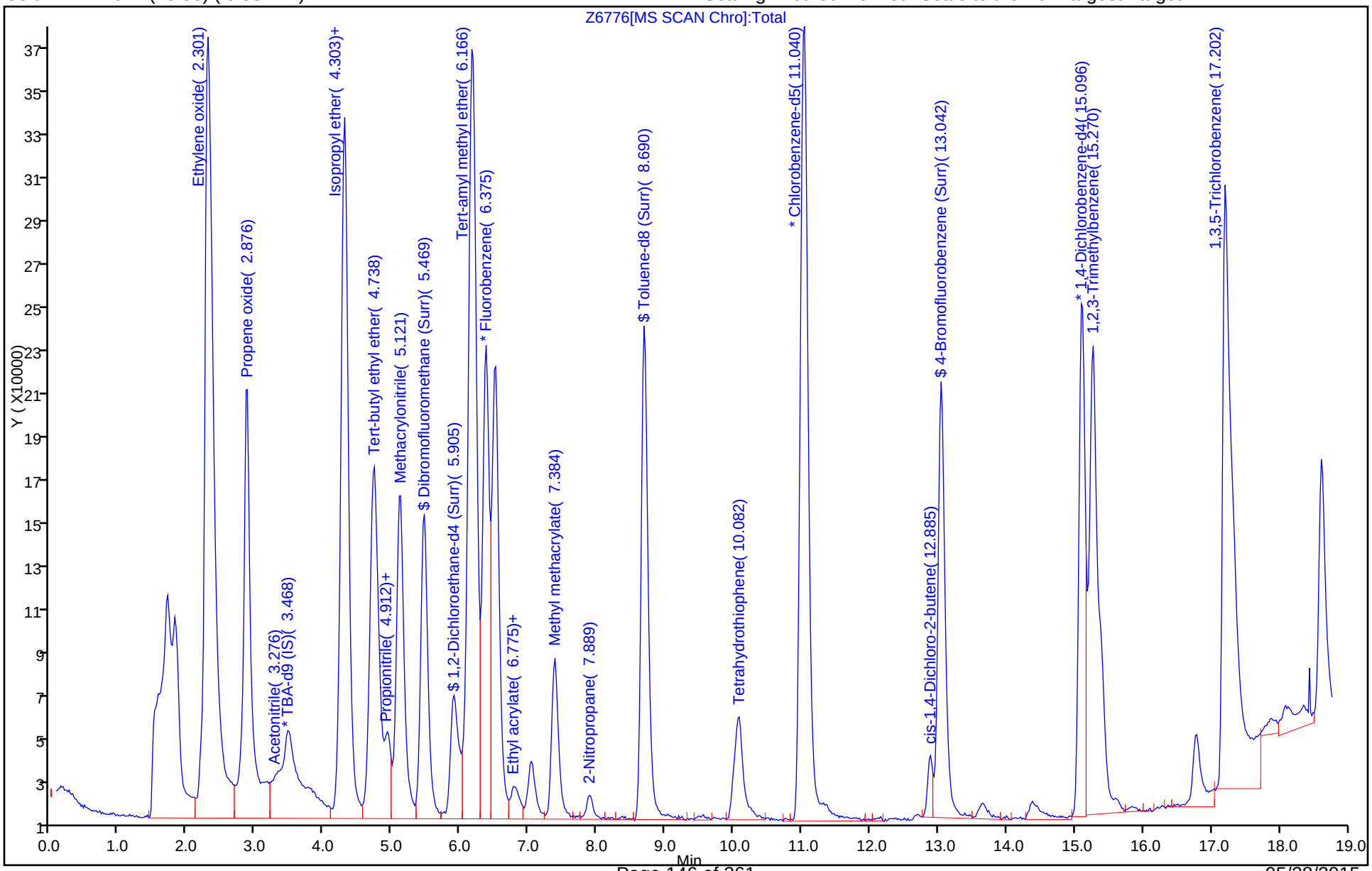
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL
MV-Supp A_00011	Amount Added:	5.00	Units: uL

Report Date: 27-Apr-2015 20:56:21 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6776.D				
Injection Date:	27-Apr-2015 12:36:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icis			Worklist Smp#:	21
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



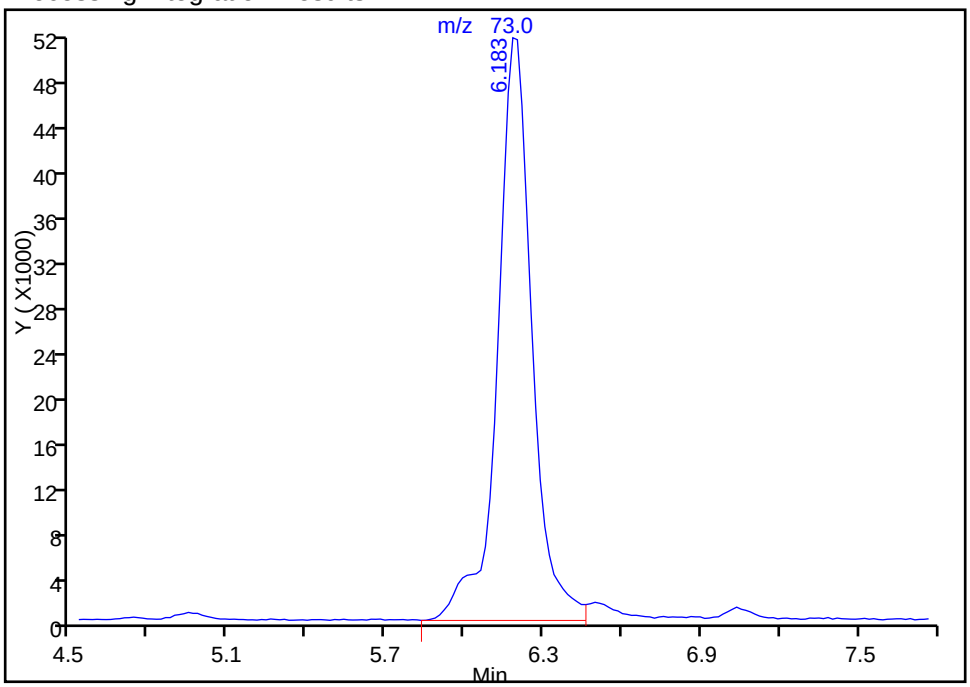
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6776.D				
Injection Date:	27-Apr-2015 12:36:30	Instrument ID:	VMS_Z		
Lims ID:	icis				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

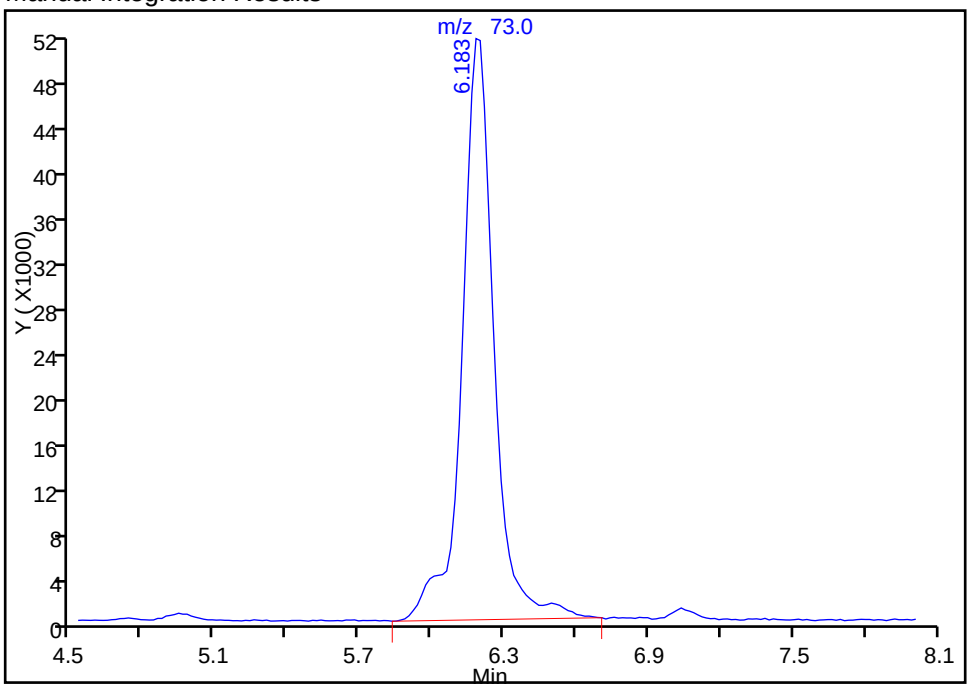
Processing Integration Results

RT: 6.18
Area: 473191
Amount: 12.400848
Amount Units: ug/l



Manual Integration Results

RT: 6.18
Area: 477411
Amount: 12.177557
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:40:36
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6777.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Apr-2015 12:59:30 ALS Bottle#: 17 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:22 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 13:31:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.486	3.485	0.001	94	128205	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	98	742235	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.006	11.005	0.001	88	173985	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.114	15.113	0.001	95	316536	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.453	5.469	-0.016	94	619752	20.0	18.5	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.888	5.905	-0.017	93	239256	20.0	17.7	
$ 10 Toluene-d8 (Surr)	98	8.691	8.690	0.001	93	1168221	20.0	18.6	
$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	89	636132	20.0	17.9	
34 Ethylene oxide	43	2.285	2.301	-0.016	99	1638145	6000.0	5943.3	
39 Ethanol	45		2.684				ND	ND	
42 Propene oxide	58	2.859	2.876	-0.017	96	1720052	1500.0	1517.7	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.277	3.276	0.001	99	110004	375.0	369.5	
60 Isopropyl ether	87	4.287	4.303	-0.016	97	534134	37.5	37.4	
63 2-Chloro-1,3-butadiene	53	4.304	4.303	0.001	89	795276	30.0	28.6	
64 Tert-butyl ethyl ether	59	4.722	4.738	-0.016	98	1691172	37.5	35.8	
69 Propionitrile	54	4.913	4.912	0.001	97	164969	375.0	343.6	
68 Ethyl acetate	43	4.931	4.947	-0.016	98	318541	60.0	61.1	
73 Methacrylonitrile	41	5.105	5.121	-0.016	93	957300	300.0	311.9	
83 Tert-amyl methyl ether	73	6.184	6.183	0.001	98	1484831	37.5	36.7	M
86 n-Butanol	56	6.793	6.792	0.001	87	94716	750.0	804.4	
88 Ethyl acrylate	55	6.776	6.792	-0.016	26	14573	NC	NC	
91 Methyl methacrylate	100	7.385	7.384	0.001	93	150167	60.0	62.0	
95 2-Nitropropane	41	7.890	7.889	0.001	97	73412	60.0	56.4	
106 Tetrahydrothiophene	60	10.013	10.030	-0.017	93	142927	30.0	29.3	
120 cis-1,4-Dichloro-2-butene	53	12.886	12.885	0.001	0	77471	30.0	28.5	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	97	1618889	30.0	30.3	
140 1,3,5-Trichlorobenzene	180	17.203	17.202	0.001	98	892838	30.0	29.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

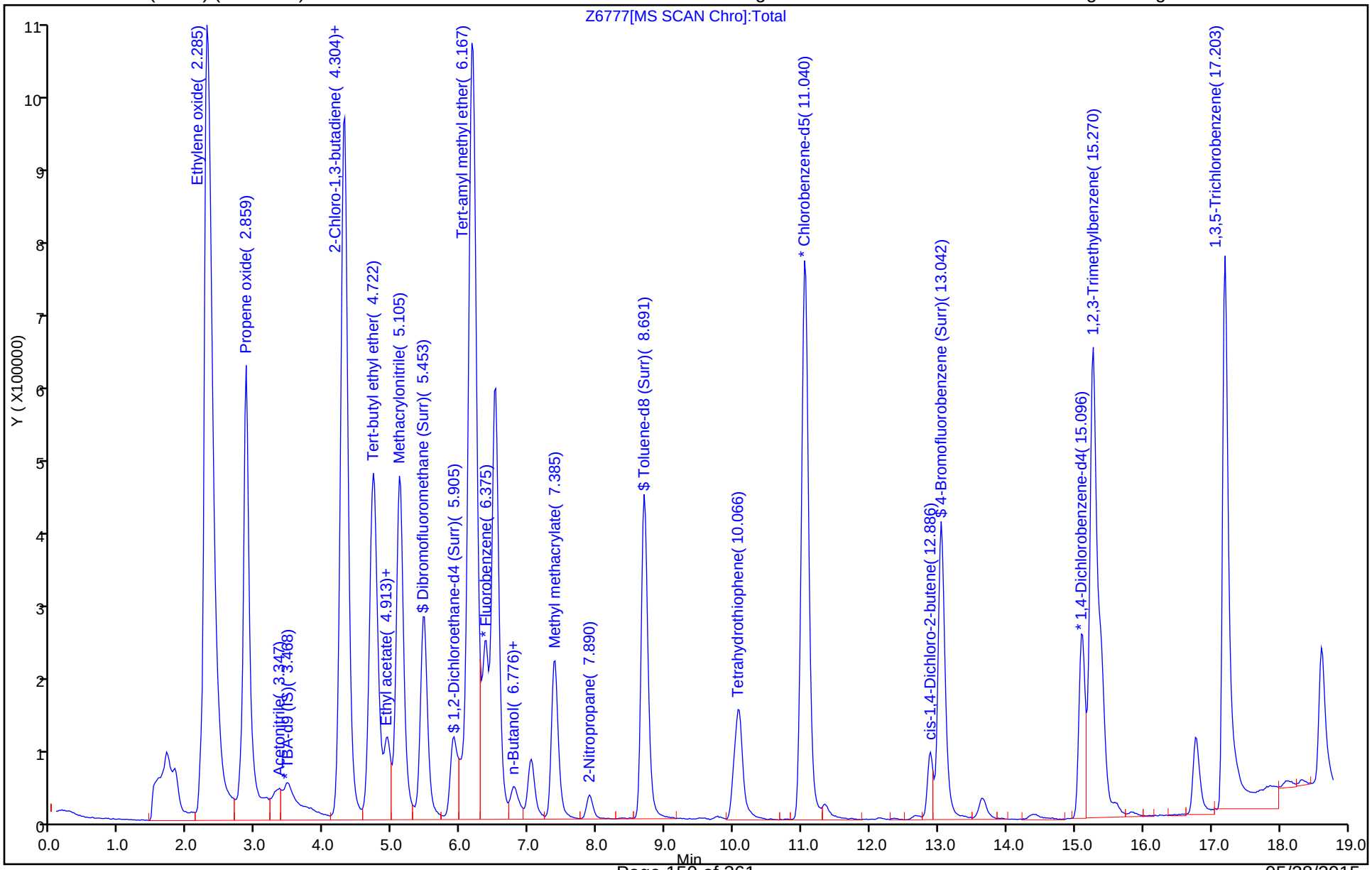
MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 1.60	Units: uL
MV-Supp A_00011	Amount Added: 15.00	Units: uL

Report Date: 27-Apr-2015 20:56:23 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6777.D				
Injection Date:	27-Apr-2015 12:59:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	22
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



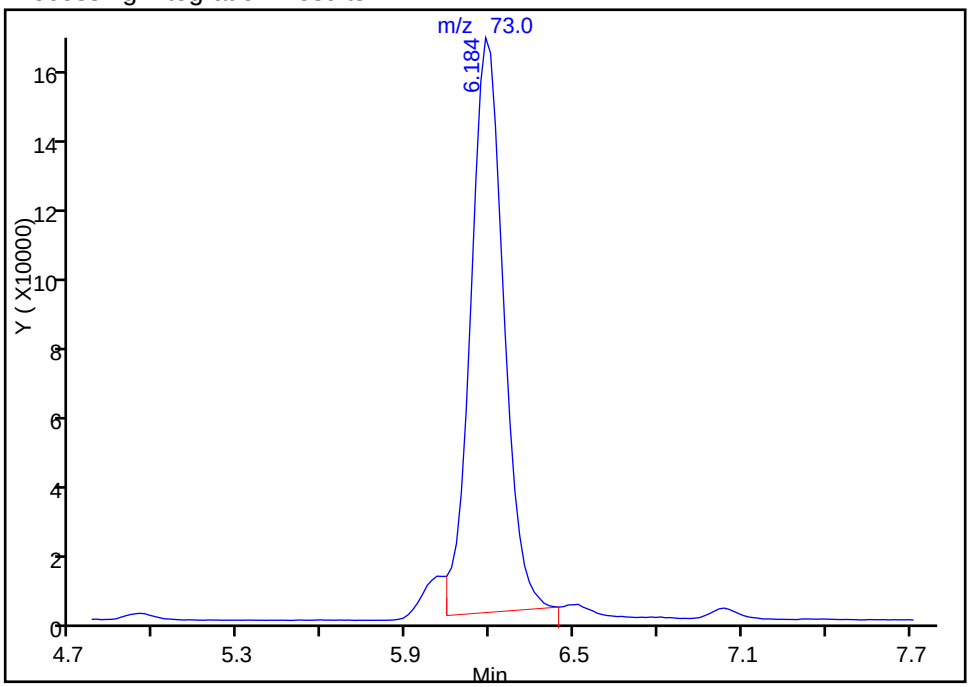
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6777.D				
Injection Date:	27-Apr-2015 12:59:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	17	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

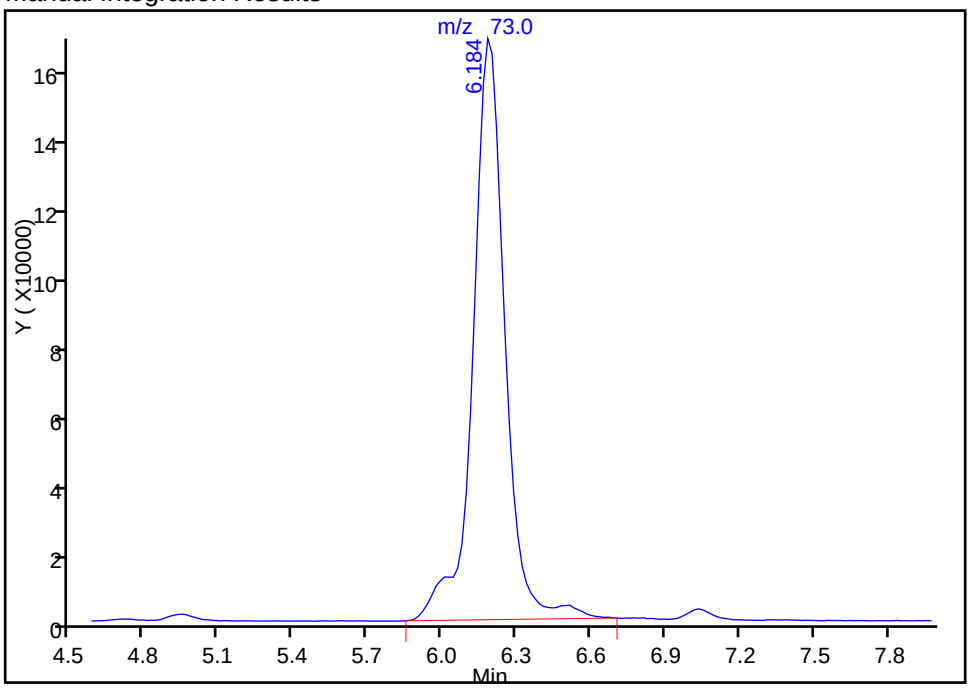
Processing Integration Results

RT: 6.18
Area: 1341029
Amount: 33.961153
Amount Units: ug/l



Manual Integration Results

RT: 6.18
Area: 1484831
Amount: 36.653380
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:41:05
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Apr-2015 13:21:30 ALS Bottle#: 18 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:23 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 14:28:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.485	3.485	0.000	94	125501	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	96	724095	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.005	11.005	0.000	89	171344	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	94	301551	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.470	5.469	0.001	94	934013	30.0	28.5	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.905	5.905	0.000	94	357211	30.0	27.0	
$ 10 Toluene-d8 (Surr)	98	8.690	8.690	0.000	94	1733116	30.0	28.0	
$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	90	942404	30.0	27.8	
34 Ethylene oxide	43	2.302	2.301	0.001	99	3269595	12000	12160	
39 Ethanol	45		2.684				ND	ND	
42 Propene oxide	58	2.859	2.876	-0.017	96	3390410	3000.0	3066.5	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.294	3.276	0.018	100	214863	750.0	739.9	
60 Isopropyl ether	87	4.303	4.303	0.000	98	1066526	75.0	76.5	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	89	1611823	60.0	59.4	
64 Tert-butyl ethyl ether	59	4.721	4.738	-0.017	98	3352492	75.0	72.8	
69 Propionitrile	54	4.913	4.912	0.001	98	323457	750.0	690.5	
68 Ethyl acetate	43	4.947	4.947	0.000	99	620096	120.0	121.9	
73 Methacrylonitrile	41	5.121	5.121	0.000	93	1836209	600.0	613.2	
83 Tert-amyl methyl ether	73	6.201	6.183	0.018	98	2902753	75.0	73.5	M
86 n-Butanol	56	6.793	6.792	0.001	87	182597	1500.0	1589.6	
88 Ethyl acrylate	55	6.793	6.792	0.001	26	27908	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	93	293982	120.0	124.4	
95 2-Nitropropane	41	7.889	7.889	0.000	96	146763	120.0	115.5	
106 Tetrahydrothiophene	60	10.013	10.030	-0.017	93	275236	60.0	57.8	
120 cis-1,4-Dichloro-2-butene	53	12.885	12.885	0.000	0	145256	60.0	56.1	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	98	3196937	60.0	62.7	
140 1,3,5-Trichlorobenzene	180	17.202	17.202	0.000	98	1775865	60.0	61.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

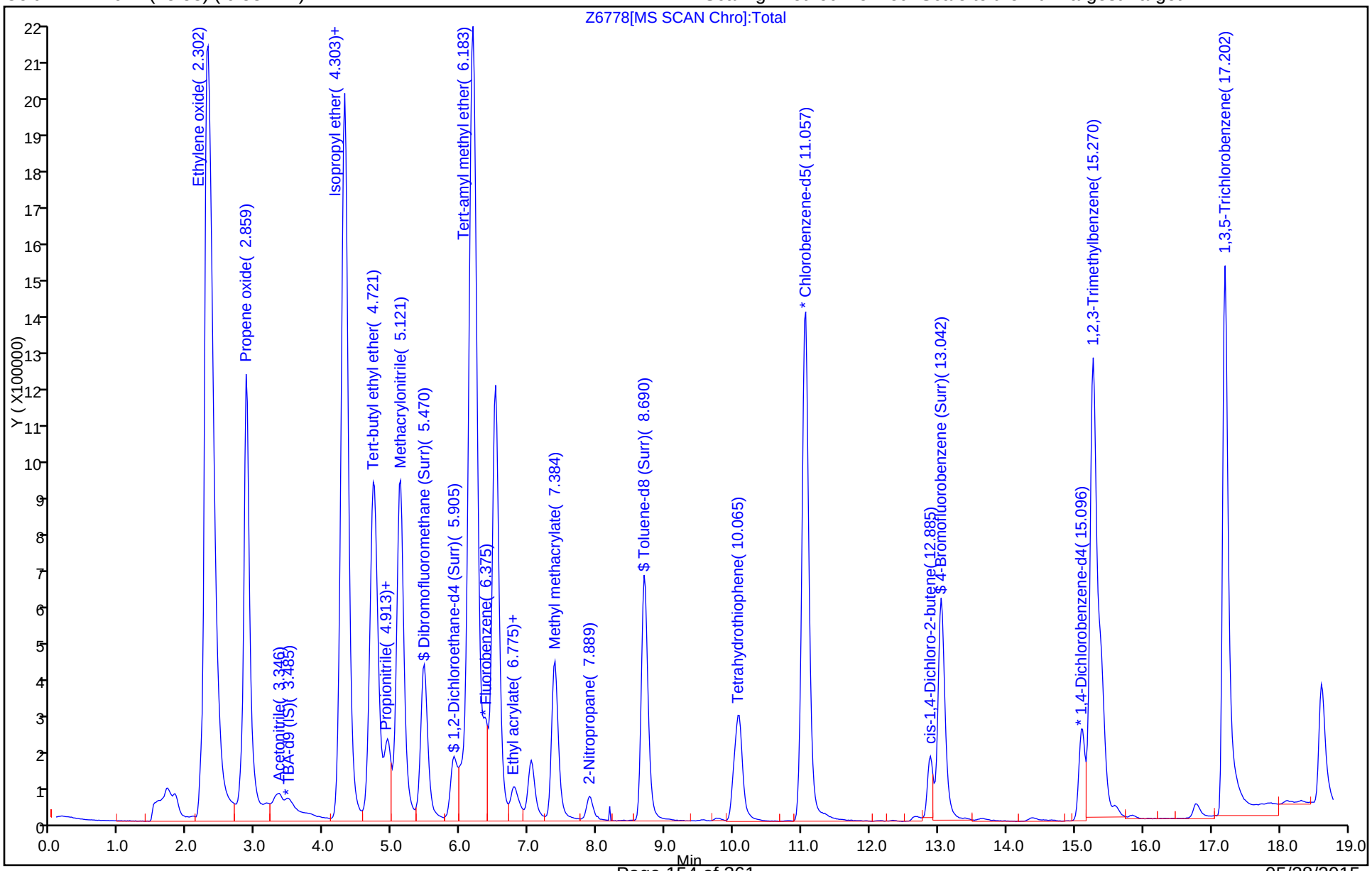
MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 2.40	Units: uL
MV-Supp A_00011	Amount Added: 30.00	Units: uL

Report Date: 27-Apr-2015 20:56:24 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D				
Injection Date:	27-Apr-2015 13:21:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	23
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



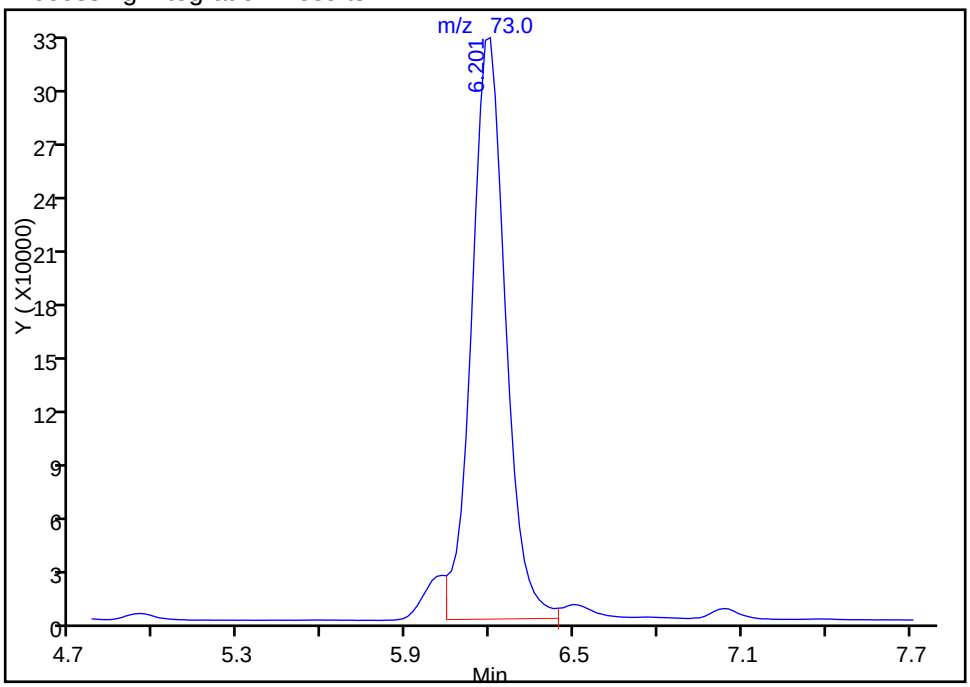
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D				
Injection Date:	27-Apr-2015 13:21:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	18	Worklist Smp#:	23
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

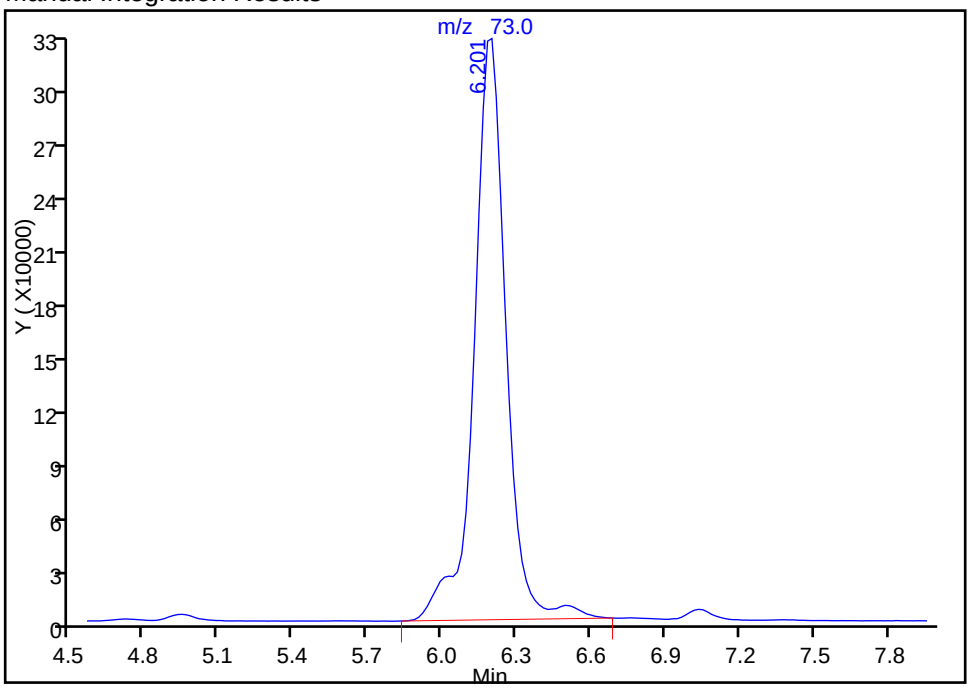
Processing Integration Results

RT: 6.20
Area: 2734262
Amount: 69.848529
Amount Units: ug/l



Manual Integration Results

RT: 6.20
Area: 2902753
Amount: 73.450198
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:41:24
Audit Action: Manually Integrated
Audit Reason: Split Peak

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-277378/9	Z7570.D
Level 2	IC 280-277378/10	Z7571.D
Level 3	IC 280-277378/11	Z7572.D
Level 4	IC 280-277378/12	Z7573.D
Level 5	IC 280-277378/13	Z7574.D
Level 6	IC 280-277378/14	Z7575.D
Level 7	IC 280-277378/15	Z7576.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4447 0.5068	0.4355 0.5378	0.3515	0.5551	0.4971	Ave		0.4755				14.8		15.0			
Chloromethane	+++++ 0.3083	0.3034 0.3365	0.2499	0.3367	0.3189	Ave		0.3090			0.1000	10.4		15.0			
Vinyl chloride	0.3229 0.2971	0.2929 0.3158	0.2484	0.3080	0.3020	Ave		0.2982				8.2		30.0			
Bromomethane	+++++ 0.3095	0.3454 0.3203	0.2960	0.3279	0.3238	Ave		0.3205				5.2		15.0			
Chloroethane	0.2242 0.1936	0.2107 0.2001	0.1869	0.2089	0.2051	Ave		0.2042				6.0		15.0			
Dichlorofluoromethane	0.9728 0.7629	0.8488 0.7843	0.7643	0.8164	0.7876	Ave		0.8196				9.0		15.0			
Trichlorofluoromethane	0.8168 0.6551	0.7446 0.6860	0.6403	0.7240	0.6737	Ave		0.7058				8.7		15.0			
Ethyl ether	0.1276 0.1340	0.1226 0.1353	0.1420	0.1440	0.1404	Ave		0.1351				5.8		15.0			
Acrolein	+++++ 0.0074	+++++ 0.0077	0.0092	0.0087	0.0072	Ave		0.0080				10.9		15.0			
1,1-Dichloroethene	0.4151 0.3078	0.3450 0.3153	0.2775	0.3338	0.3118	Ave		0.3295				13.2		30.0			
Acetone	+++++ 0.0146	+++++ 0.0161	0.0126	0.0170	0.0151	Ave		0.0151				11.0		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5315 0.4834	0.4916 0.5043	0.4514	0.5128	0.4946	Ave		0.4956				5.1		15.0			
Iodomethane	0.9254 0.8514	0.8329 0.8807	0.8147	0.8673	0.8640	Ave		0.8624				4.1		15.0			
Carbon disulfide	1.2323 1.1063	1.0759 1.1369	1.0482	1.1394	1.1181	Ave		1.1225				5.2		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.5205 0.4741	0.4523 0.4770	0.4765	0.5080	0.4892	Ave		0.4854				4.7		15.0			
Methyl acetate	+++++ 0.0648	0.0670 0.0680	0.0696	0.0701	0.0656	Ave		0.0675				3.2		15.0			
Methylene Chloride	+++++ 0.2596	+++++ 0.2605	0.3222	0.2896	0.2743	Ave		0.2812				9.2		15.0			
tert-Butyl alcohol	+++++ 0.6211	+++++ 0.6005	0.6439	0.6979	0.8692	Lin	10.964	0.5855							0.9950		0.9900
Acrylonitrile	0.0218 0.0208	0.0211 0.0210	0.0237	0.0226	0.0211	Ave		0.0217				4.9		15.0			
trans-1,2-Dichloroethene	0.4337 0.3275	0.3563 0.3248	0.3506	0.3549	0.3450	Ave		0.3561				10.2		15.0			
Methyl tert-butyl ether	0.6131 0.4645	0.4875 0.4595	0.5259	0.5210	0.4814	Ave		0.5076				10.5		15.0			
Hexane	2.6445 1.9026	2.2883 1.8492	1.9658	2.0885	1.9982	Ave		2.1053				13.2		15.0			
1,1-Dichloroethane	0.7144 0.6059	0.6223 0.5883	0.6026	0.6564	0.6319	Ave		0.6317			0.1000	6.8		15.0			
Vinyl acetate	+++++ 0.2960	0.3247 0.2939	0.3106	0.3273	0.2775	Ave		0.3050				6.4		15.0			
2-Butanone (MEK)	+++++ 0.0335	0.0411 0.0339	0.0386	0.0388	0.0344	Ave		0.0367				8.6		15.0			
cis-1,2-Dichloroethene	0.4131 0.3302	0.3462 0.3261	0.3385	0.3554	0.3477	Ave		0.3510				8.3		15.0			
2,2-Dichloropropane	+++++ 0.5297	0.7691 0.5062	0.7923	0.6457	0.5875	Lin1	0.4113	0.5116							0.9970		0.9900
sec-Butyl Alcohol	+++++ 0.8076	0.8130 0.7709	0.7278	0.8075	0.8063	Ave		0.7889				4.3		15.0			
Bromochloromethane	0.1578 0.1721	0.1585 0.1738	0.1705	0.1770	0.1736	Ave		0.1690				4.6		15.0			
Chloroform	0.6919 0.6018	0.6086 0.5924	0.6196	0.6354	0.6198	Ave		0.6242				5.3		30.0			
Tetrahydrofuran	+++++ 0.0214	0.0281 0.0225	0.0285	0.0239	0.0219	Ave		0.0244				12.9		15.0			
1,1,1-Trichloroethane	0.7206 0.5801	0.6301 0.5954	0.5899	0.6223	0.5999	Ave		0.6197				7.7		15.0			
Cyclohexane	0.6970 0.5271	0.5806 0.5390	0.5261	0.5753	0.5378	Ave		0.5690				10.6		15.0			
1,1-Dichloropropene	0.5719 0.4853	0.5093 0.5061	0.4850	0.5207	0.4974	Ave		0.5108				5.8		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.6591 0.5981	0.6220 0.6217	0.5770	0.6286	0.5977	Ave		0.6149				4.3		15.0			
Isobutyl alcohol	+++++ 0.2717	+++++ 0.2753	0.2042	0.2846	0.2673	Ave		0.2606				12.3		15.0			
1,2-Dichloroethane	0.2490 0.2409	0.2332 0.2446	0.2574	0.2582	0.2476	Ave		0.2473				3.6		15.0			
Benzene	1.1173 0.9443	0.9410 0.9596	0.9484	0.9923	0.9639	Ave		0.9810				6.4		15.0			
Trichloroethene	0.5121 0.4016	0.4300 0.3927	0.4081	0.4285	0.4203	Ave		0.4276				9.3		15.0			
2-Pentanone	+++++ 0.0746	0.0897 0.0774	0.0808	0.0794	0.0738	Ave		0.0793				7.2		15.0			
1,2-Dichloropropane	0.3647 0.3357	0.3111 0.3258	0.3359	0.3508	0.3430	Ave		0.3382				5.1		30.0			
Methylcyclohexane	0.5345 0.4479	0.5501 0.4433	0.4828	0.4748	0.4574	Ave		0.4844				8.7		15.0			
Dibromomethane	0.1948 0.1840	0.1820 0.1830	0.1969	0.1963	0.1863	Ave		0.1890				3.5		15.0			
Bromodichloromethane	0.5628 0.5281	0.5132 0.5200	0.5382	0.5338	0.5433	Ave		0.5342				3.1		15.0			
2-Chloroethyl vinyl ether	+++++ 0.1050	0.1005 0.1043	0.1128	0.1091	0.1104	Ave		0.1070				4.2		15.0			
cis-1,3-Dichloropropene	1.7523 1.7701	1.7236 1.7262	1.7784	1.8618	1.8849	Ave		1.7853				3.6		15.0			
4-Methyl-2-pentanone (MIBK)	0.1243 0.1061	0.1019 0.1073	0.1152	0.1166	0.1082	Ave		0.1114				6.9		15.0			
Toluene	1.1890 1.0031	1.0193 0.9799	1.0290	1.0599	1.0484	Ave		1.0470				6.5		30.0			
trans-1,3-Dichloropropene	0.3239 0.2903	0.2799 0.2858	0.3048	0.3086	0.3023	Ave		0.2994				5.0		15.0			
Ethyl methacrylate	+++++ 0.9424	1.0700 0.9241	1.0598	1.0400	0.9981	Ave		1.0057				6.1		15.0			
1,1,2-Trichloroethane	0.1908 0.1841	0.1765 0.1811	0.1984	0.1983	0.1874	Ave		0.1881				4.4		15.0			
1,3-Dichloropropane	1.2297 1.3044	1.1953 1.2761	1.3077	1.3552	1.3473	Ave		1.2879				4.6		15.0			
Tetrachloroethene	1.5608 1.5694	1.5616 1.5464	1.4908	1.6337	1.6828	Ave		1.5779				4.0		15.0			
2-Hexanone	+++++ 0.2834	0.3259 0.2813	0.3148	0.3014	0.2846	Ave		0.2986				6.3		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	1.4720 1.6036	1.3774 1.6210	1.5334	1.5588	1.6517	Ave		1.5454				6.2		15.0			
1,2-Dibromoethane	0.9381 1.0457	0.9353 1.0376	1.0319	1.0872	1.0744	Ave		1.0214				6.0		15.0			
Chlorobenzene	3.0403 3.0716	2.9526 2.9405	2.9907	3.1817	3.2741	Ave		3.0645			0.3000	4.0		15.0			
1-Chlorohexane	2.4916 1.8440	2.0899 1.7537	1.9020	2.0081	1.9921	Ave		2.0116				11.9		15.0			
1,1,1,2-Tetrachloroethane	1.4404 1.5689	1.3830 1.5331	1.4921	1.5927	1.6429	Ave		1.5219				5.9		15.0			
Ethylbenzene	1.6255 1.4358	1.5270 1.3953	1.4503	1.5229	1.5944	Ave		1.5073				5.6		30.0			
m-Xylene & p-Xylene	2.0547 1.9781	1.9889 1.8417	1.9983	2.0445	2.0656	Ave		1.9960				3.8		15.0			
o-Xylene	1.7368 1.6896	1.6954 1.6033	1.7247	1.8365	1.8387	Ave		1.7321				4.8		15.0			
Styrene	2.5813 2.7554	2.6126 2.6412	2.7352	2.9064	2.9660	Ave		2.7426				5.4		15.0			
Bromoform	+++++ 0.8393	0.6712 0.8838	0.7751	0.8492	0.8667	Ave		0.8142			0.1000	9.7		15.0			
Isopropylbenzene	3.6911 3.0599	3.3390 2.9080	3.1678	3.3104	3.2226	Ave		3.2427				7.6		15.0			
Cyclohexanone	0.0110 0.0112	0.0194 0.0120	0.0168	0.0129	0.0122	Lin1	0.0978	0.0118							0.9930		0.9900
Bromobenzene	0.8388 0.8706	0.8255 0.8459	0.8470	0.8981	0.8880	Ave		0.8591				3.1		15.0			
1,1,2,2-Tetrachloroethane	0.6821 0.5688	0.5550 0.5528	0.5992	0.6135	0.5659	Ave		0.5910			0.3000	7.8		15.0			
1,2,3-Trichloropropane	+++++ 0.1377	0.1156 0.1370	0.1422	0.1448	0.1383	Ave		0.1359				7.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1105	0.0743 0.1080	0.1078	0.1143	0.1153	Ave		0.1050				14.6		15.0			
N-Propylbenzene	0.9399 0.8183	0.9051 0.7804	0.8702	0.8942	0.8811	Ave		0.8699				6.2		15.0			
2-Chlorotoluene	+++++ 0.6927	0.7435 0.6778	0.7516	0.7754	0.7636	Ave		0.7341				5.4		15.0			
4-Chlorotoluene	+++++ 0.8313	0.8677 0.7925	0.8376	0.8118	0.8581	Ave		0.8332				3.4		15.0			
1,3,5-Trimethylbenzene	2.9198 2.3445	2.5878 2.2003	2.5092	2.5454	2.4833	Ave		2.5129				8.9		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butylbenzene	3.3749 2.7076	3.0518 2.5654	2.8704	2.9734	2.9133	Ave		2.9224				8.8		15.0			
1,2,4-Trimethylbenzene	2.8247 2.2590	2.5525 2.1288	2.3710	2.4509	2.4385	Ave		2.4322				9.1		15.0			
sec-Butylbenzene	0.8623 0.7346	0.8091 0.6988	0.7767	0.8156	0.7977	Ave		0.7850				6.9		15.0			
1,3-Dichlorobenzene	1.6302 1.4288	1.4330 1.3264	1.4569	1.5124	1.4862	Ave		1.4677				6.3		15.0			
p-Isopropyltoluene	3.9401 3.0323	3.4629 2.8756	3.1926	3.3868	3.3052	Ave		3.3136				10.4		15.0			
1,4-Dichlorobenzene	1.7822 1.6996	1.7917 1.6520	1.8185	1.7889	1.7859	Ave		1.7598				3.4		15.0			
1,2-Dichlorobenzene	1.3316 1.2769	1.2283 1.2275	1.3307	1.2942	1.2935	Ave		1.2832				3.3		15.0			
n-Butylbenzene	3.4382 2.5582	3.0180 2.4025	2.8223	2.9123	2.7828	Ave		2.8478				11.7		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0729 0.1045	0.0990	0.1095	0.0981	Ave		0.0982				13.3		15.0			
1,2,4-Trichlorobenzene	+++++ 0.8632	0.9118 0.8014	0.9381	0.9531	0.8981	Ave		0.8943				6.2		15.0			
Hexachlorobutadiene	0.9875 0.7966	0.9405 0.7397	0.8869	0.8979	0.8261	Ave		0.8679				9.9		15.0			
Naphthalene	+++++ 0.8401	0.8459 0.8045	0.9054	0.9100	0.8383	Ave		0.8574				4.9		15.0			
1,2,3-Trichlorobenzene	+++++ 0.6482	0.6856 0.6042	0.7615	0.7201	0.6780	Ave		0.6829				8.0		15.0			
Dibromofluoromethane (Surr)	0.5526	+++++ 0.5553	0.6837	0.5956	0.5631	Ave		0.5901				9.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2392	+++++ 0.2518	0.3039	0.2562	0.2290	Ave		0.2560				11.3		15.0			
Toluene-d8 (Surr)	3.9739	+++++ 3.8252	4.6553	4.2338	4.2196	Ave		4.1816				7.6		15.0			
4-Bromofluorobenzene (Surr)	1.2206	+++++ 1.1703	1.6062	1.3527	1.2849	Ave		1.3269				12.8		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-277378/9	Z7570.D
Level 2	IC 280-277378/10	Z7571.D
Level 3	IC 280-277378/11	Z7572.D
Level 4	IC 280-277378/12	Z7573.D
Level 5	IC 280-277378/13	Z7574.D
Level 6	IC 280-277378/14	Z7575.D
Level 7	IC 280-277378/15	Z7576.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7709 890676	25581 1847006	41538	161778	297541	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	+++++ 541882	17819 1155711	29530	98126	190881	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	5598 522229	17203 1084568	29350	89754	180758	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Ave	+++++ 544022	20286 1099923	34982	95577	193819	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Ave	3887 340212	12373 687122	22092	60875	122778	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	16862 1340833	49854 2693540	90320	237948	471397	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	14159 1151415	43732 2355922	75673	211012	403249	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Ave	2211 235569	7198 464773	16778	41975	84038	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Ave	+++++ 129425	+++++ 263232	10834	25315	42858	+++++ 300	+++++ 600	20.0	50.0	100.0
1,1-Dichloroethene	FB	Ave	7196 540922	20263 1082932	32796	97296	186610	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acetone	FB	Ave	+++++ 102876	+++++ 221062	5952	19807	36147	+++++ 120	+++++ 240	8.00	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	9213 849656	28872 1731781	53342	149448	296052	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Iodomethane	FB	Ave	16041 1496329	48920 3024646	96279	252788	517133	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	21361 1944444	63190 3904398	123871	332090	669232	0.300 30.0	1.00 60.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	9022 833192	26566 1638267	56312	148067	292800	0.300 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	+++++ 569432	19687 1166999	41155	102167	196230	+++++ 150	5.00 300	10.0	25.0	50.0
Methylene Chloride	FB	Ave	+++++ 456278	+++++ 894658	38072	84395	164177	+++++ 30.0	+++++ 60.0	2.00	5.00	10.0
tert-Butyl alcohol	TBA	Lin	+++++ 89496	+++++ 189201	7306	18755	41806	+++++ 300	+++++ 600	20.0	50.0	100
Acrylonitrile	FB	Ave	3774 365573	12393 721582	27995	66010	126311	3.00 300	10.0 600	20.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	7518 575682	20928 1115432	41434	103443	206494	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	10628 816390	28634 1577984	62146	151850	288131	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	11972 810362	32919 1558387	57755	147748	281865	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	12384 1064910	36549 2020412	71215	191302	378189	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	+++++ 1040408	38138 2018425	73404	190774	332133	+++++ 60.0	2.00 120	4.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	+++++ 235659	9653 466192	18255	45287	82420	+++++ 120	4.00 240	8.00	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7161 580355	20335 1119973	39997	103578	208123	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Lin1	+++++ 930970	45174 1738421	93631	188189	351619	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butyl Alcohol	TBA	Ave	+++++ 349073	12273 728725	24776	65102	116342	+++++ 900	30.0 1800	60.0	150	300
Bromochloromethane	FB	Ave	2735 302441	9308 596946	20151	51580	103892	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloroform	FB	Ave	11993 1057680	35742 2034517	73220	185180	370987	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 75392	3306 154878	6737	13905	26224	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	12491 1019505	37006 2044728	69711	181377	359060	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	12082 926425	34102 1851103	62176	167669	321904	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	9914 852975	29910 1738117	57317	151758	297723	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	11425 1051212	36532 2135062	68190	183217	357743	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isobutyl alcohol	TBA	Ave	+++++ 97857	+++++ 216857	5794	19117	32142	+++++ 750	+++++ 1500	50.0	125	250

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	4317 423318	13698 840077	30420	75267	148223	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Benzene	FB	Ave	19368 1659761	55268 3295430	112077	289210	576941	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	8876 705908	25255 1348734	48225	124898	251576	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Ave	+++++ 524737	21064 1063528	38172	92534	176774	+++++ 120	4.00 240	8.00	20.0	40.0
1,2-Dichloropropane	FB	Ave	6322 590069	18273 1119022	39697	102231	205319	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Methylcyclohexane	FB	Ave	9265 787171	32310 1522306	57060	138374	273737	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	3377 323359	10692 628511	23266	57201	111513	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	9755 928115	30143 1785739	63600	155573	325173	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 184483	5902 358143	13325	31796	66069	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	7933 753925	24796 1454781	52250	131710	265882	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8621 746019	23945 1473574	54452	135962	258950	1.20 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	20610 1763105	59869 3365323	121599	308919	627507	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	5614 510270	16439 981386	36024	89947	180932	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Ave	+++++ 401380	15393 778778	31137	73572	140784	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	3307 323489	10364 622005	23441	57787	112136	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichloropropane	CBZ	Ave	5567 555578	17195 1075440	38421	95870	190040	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	7066 668423	22465 1303187	43799	115570	237372	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	+++++ 482826	18756 948098	36995	85284	160598	+++++ 120	4.00 240	8.00	20.0	40.0
Chlorodibromomethane	CBZ	Ave	6664 683003	19815 1366054	45052	110270	232979	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromoethane	CBZ	Ave	4247 445382	13455 874401	30316	76908	151556	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobenzene	CBZ	Ave	13764 1308263	42476 2478055	87867	225081	461840	0.300 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1-Chlorohexane	CBZ	Ave	11280 785415	30065 1477919	55880	142059	281001	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	6521 668217	19896 1292047	43837	112669	231738	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	7359 611541	21968 1175882	42609	107737	224900	0.300 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	9302 842517	28612 1552082	58710	144634	291369	0.300 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	7863 719628	24390 1351146	50672	129917	259365	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	11686 1173599	37585 2225830	80359	205608	418378	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Ave	+++++ 357480	9656 744798	22771	60072	122259	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	26292 2132432	79344 4111449	156342	398151	801280	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Lin1	1993 190128	11171 405168	19734	36570	68866	12.0 1200	40.0 2400	80.0	200	400
Bromobenzene	DCB	Ave	5975 606678	19615 1195996	41804	108015	220808	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCB	Ave	4859 396358	13189 781606	29572	73781	140712	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	+++++ 95965	2746 193726	7018	17413	34376	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 76984	1766 152726	5321	13743	28676	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	6695 570298	21507 1103334	42948	107549	219095	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	+++++ 482729	17668 958270	37094	93257	189875	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	+++++ 579357	20620 1120394	41338	97639	213358	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	20798 1633843	61493 3110830	123839	306142	617458	0.300 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	24040 1886898	72520 3627084	141668	357618	724376	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	20121 1574288	60654 3009752	117017	294769	606325	0.300 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	6142 511917	19226 987928	38335	98091	198353	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	11612 995742	34053 1875299	71904	181894	369530	0.300 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277378

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2015 08:19 Calibration End Date: 05/14/2015 10:35 Calibration ID: 22305

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
p-Isopropyltoluene	DCB	Ave	28066 2113180	82287 4065641	157566	407342	821824	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	12695 1184410	42576 2335706	89749	215153	444050	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	9485 889863	29188 1735474	65674	155661	321636	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	24491 1782761	71715 3396741	139293	350270	691937	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 73310	1733 147715	4887	13167	24385	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 601532	21668 1133094	46297	114634	223302	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	7034 555161	22349 1045839	43774	107998	205417	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Naphthalene	DCB	Ave	+++++ 585486	20101 1137483	44685	109449	208430	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	+++++ 451729	16291 854203	37582	86604	168572	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dibromofluoromethane (Surr)	FB	Ave	647480	+++++ 953464	80799	173606	337011	20.0	+++++ 30.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	280255	+++++ 432312	35910	74677	137087	20.0	+++++ 30.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBZ	Ave	1128395	+++++ 1611831	136773	299508	595203	20.0	+++++ 30.0	2.00	5.00	10.0
4-Bromofluorobenzene (Surr)	DCB	Ave	567072	+++++ 827270	79272	162692	319481	20.0	+++++ 30.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7570.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-May-2015 08:19:30 ALS Bottle#: 2 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:00 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 08:47:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.486	3.489	-0.003	92	132642	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.377	-0.003	98	722255	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.023	-0.003	87	188632	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.112	0.015	96	296797	12.5	12.5	
27 Dichlorodifluoromethane	85	1.903	1.923	-0.020	95	7709	0.3000	0.2806	
30 Chloromethane	50		1.992				ND	ND	
31 Butadiene	54	2.059	2.097	-0.038	86	3928	NC	NC	
32 Vinyl chloride	62	2.094	2.114	-0.020	95	5598	0.3000	0.3249	
35 Bromomethane	94	2.338	2.340	-0.002	93	8275	0.3000	0.4469	
36 Chloroethane	64	2.372	2.393	-0.021	91	3887	0.3000	0.3294	
37 Dichlorofluoromethane	67	2.546	2.549	-0.003	96	16862	0.3000	0.3561	
38 Trichlorofluoromethane	101	2.616	2.601	0.015	96	14159	0.3000	0.3472	
40 Ethyl ether	59	2.807	2.810	-0.003	86	2211	0.3000	0.2832	
44 Acrolein	56		2.915				ND	ND	
48 Acetone	43		3.036				ND	ND	
45 1,1-Dichloroethene	96	3.034	3.036	-0.002	94	7196	0.3000	0.3780	
46 1,1,2-Trichloro-1,2,2-trif	151	3.086	3.089	-0.003	95	9213	0.3000	0.3217	
49 Iodomethane	142	3.173	3.193	-0.020	98	16041	0.3000	0.3219	
50 Carbon disulfide	76	3.260	3.280	-0.020	98	21361	0.3000	0.3294	
52 3-Chloro-1-propene	41	3.329	3.350	-0.021	83	9022	0.3000	0.3217	
51 Methyl acetate	43		3.350				ND	ND	
54 Methylene Chloride	84	3.451	3.471	-0.020	96	11714	0.3000	0.7209	
55 2-Methyl-2-propanol	59		3.558				ND	ND	
58 Acrylonitrile	53	3.677	3.680	-0.003	94	3774	3.00	3.01	
57 trans-1,2-Dichloroethene	96	3.764	3.767	-0.003	97	7518	0.3000	0.3654	
56 Methyl tert-butyl ether	73	3.782	3.785	-0.003	88	10628	0.3000	0.3624	
59 Hexane	57	4.025	4.063	-0.038	92	11972	0.3000	0.3768	
62 1,1-Dichloroethane	63	4.182	4.202	-0.020	91	12384	0.3000	0.3393	
61 Vinyl acetate	43		4.220				ND	ND	
67 2-Butanone (MEK)	43		4.881				ND	ND	
65 cis-1,2-Dichloroethene	96	4.878	4.881	-0.003	80	7161	0.3000	0.3531	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77		4.898				ND	ND	
70 sec-Butyl Alcohol	45		5.107				ND	ND	
71 Chlorobromomethane	128	5.156	5.177	-0.021	83	2735	0.3000	0.2800	
72 Tetrahydrofuran	42		5.264				ND	ND	
74 Chloroform	83	5.261	5.264	-0.003	90	11993	0.3000	0.3325	
75 1,1,1-Trichloroethane	97	5.539	5.542	-0.003	95	12491	0.3000	0.3488	
76 Cyclohexane	56	5.661	5.647	0.015	88	12082	0.3000	0.3675	
78 1,1-Dichloropropene	75	5.748	5.751	-0.003	94	9914	0.3000	0.3359	
77 Carbon tetrachloride	117	5.800	5.786	0.014	94	11425	0.3000	0.3216	
80 Isobutyl alcohol	41		5.873				ND	ND	
82 1,2-Dichloroethane	62	5.992	5.995	-0.003	1	4317	0.3000	0.3021	a
81 Benzene	78	6.009	6.012	-0.003	96	19368	0.3000	0.3417	
84 n-Heptane	43	6.409	6.395	0.014	37	11677	0.3000	0.3522	
85 Trichloroethene	95	6.897	6.899	-0.002	94	8876	0.3000	0.3592	
89 2-Pentanone	43		7.143				ND	ND	
90 1,2-Dichloropropane	63	7.192	7.195	-0.003	72	6322	0.3000	0.3236	
87 Methylcyclohexane	55	7.210	7.213	-0.003	89	9265	0.3000	0.3310	
92 Dibromomethane	93	7.366	7.369	-0.003	95	3377	0.3000	0.3092	
94 Dichlorobromomethane	83	7.610	7.595	0.015	94	9755	0.3000	0.3161	
96 2-Chloroethyl vinyl ether	63		8.048				ND	ND	
97 cis-1,3-Dichloropropene	75	8.289	8.274	0.015	92	7933	0.3000	0.2944	
98 4-Methyl-2-pentanone (MIBK	43	8.532	8.518	0.014	93	8621	1.20	1.34	
99 Toluene	91	8.811	8.796	0.015	97	20610	0.3000	0.3407	
100 trans-1,3-Dichloropropene	75	9.124	9.127	-0.003	81	5614	0.3000	0.3246	
101 Ethyl methacrylate	69	9.315	9.318	-0.003	81	7422	0.3000	0.4890	
102 1,1,2-Trichloroethane	97	9.402	9.405	-0.003	83	3307	0.3000	0.3043	
104 1,3-Dichloropropane	76	9.681	9.666	0.015	68	5567	0.3000	0.2864	
103 Tetrachloroethene	164	9.698	9.701	-0.003	91	7066	0.3000	0.2967	
105 2-Hexanone	43		9.840				ND	ND	
107 Chlorodibromomethane	129	10.046	10.049	-0.003	83	6664	0.3000	0.2858	
109 Ethylene Dibromide	107	10.220	10.223	-0.003	92	4247	0.3000	0.2755	
111 Chlorobenzene	112	11.055	11.058	-0.003	49	13764	0.3000	0.2976	
110 1-Chlorohexane	91	11.073	11.058	0.015	48	11280	0.3000	0.3716	
113 1,1,1,2-Tetrachloroethane	131	11.212	11.215	-0.003	71	6521	0.3000	0.2839	
112 Ethylbenzene	106	11.282	11.267	0.015	98	7359	0.3000	0.3235	
114 m-Xylene & p-Xylene	106	11.490	11.476	0.014	96	9302	0.3000	0.3088	
115 o-Xylene	106	12.169	12.154	0.015	95	7863	0.3000	0.3008	
116 Styrene	104	12.169	12.172	-0.003	88	11686	0.3000	0.2824	
117 Bromoform	173		12.450				ND	ND	
118 Isopropylbenzene	105	12.813	12.816	-0.003	96	26292	0.3000	0.3415	
119 Cyclohexanone	55	12.952	12.937	0.015	50	1993	12.0	2.90	
121 Bromobenzene	156	13.300	13.303	-0.003	93	5975	0.3000	0.2929	
122 1,1,2,2-Tetrachloroethane	83	13.317	13.320	-0.003	62	4859	0.3000	0.3462	
124 1,2,3-Trichloropropane	110		13.372				ND	ND	
125 trans-1,4-Dichloro-2-buten	53		13.425				ND	ND	
123 N-Propylbenzene	120	13.544	13.546	-0.002	98	6695	0.3000	0.3241	
126 2-Chlorotoluene	126		13.668				ND	ND	
128 4-Chlorotoluene	126		13.860				ND	ND	
127 1,3,5-Trimethylbenzene	105	13.874	13.877	-0.003	88	20798	0.3000	0.3486	
129 tert-Butylbenzene	119	14.431	14.451	-0.020	92	24040	0.3000	0.3465	
130 1,2,4-Trimethylbenzene	105	14.535	14.538	-0.003	93	20121	0.3000	0.3484	
131 sec-Butylbenzene	134	14.849	14.851	-0.002	94	6142	0.3000	0.3295	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	15.005	15.008	-0.003	88	11612	0.3000	0.3332	
133 4-Isopropyltoluene	119	15.127	15.130	-0.003	49	28066	0.3000	0.3567	
134 1,4-Dichlorobenzene	146	15.162	15.165	-0.003	38	12695	0.3000	0.3038	
138 1,2-Dichlorobenzene	146	15.806	15.808	-0.002	91	9485	0.3000	0.3113	
137 n-Butylbenzene	91	15.840	15.843	-0.003	97	24491	0.3000	0.3622	
139 1,2-Dibromo-3-Chloropropan	157		16.940				ND	ND	
141 1,2,4-Trichlorobenzene	180	17.876	17.862	0.014	90	7280	0.3000	0.3429	
142 Hexachlorobutadiene	225	18.068	18.071	-0.003	93	7034	0.3000	0.3413	
143 Naphthalene	128		18.088				ND	ND	
144 1,2,3-Trichlorobenzene	180	18.346	18.349	-0.003	93	5635	0.3000	0.3475	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		1.20	0.9343	
S 150 Xylenes, Total (URS)	1				0		0.6000	0.6096	
S 151 Total BTEX	1				0			1.62	
S 148 1,3-Dichloropropene, Total	1				0		0.6000	0.6190	
S 145 1,2-Dichloroethene, Total	1				0		0.6000	0.7184	
S 146 Xylenes, Total	106				0		0.6000	0.6096	
S 147 1,2-Dichloroethene, Total	96				0		0.6000	0.7184	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- a - User Assigned ID

Reagents:

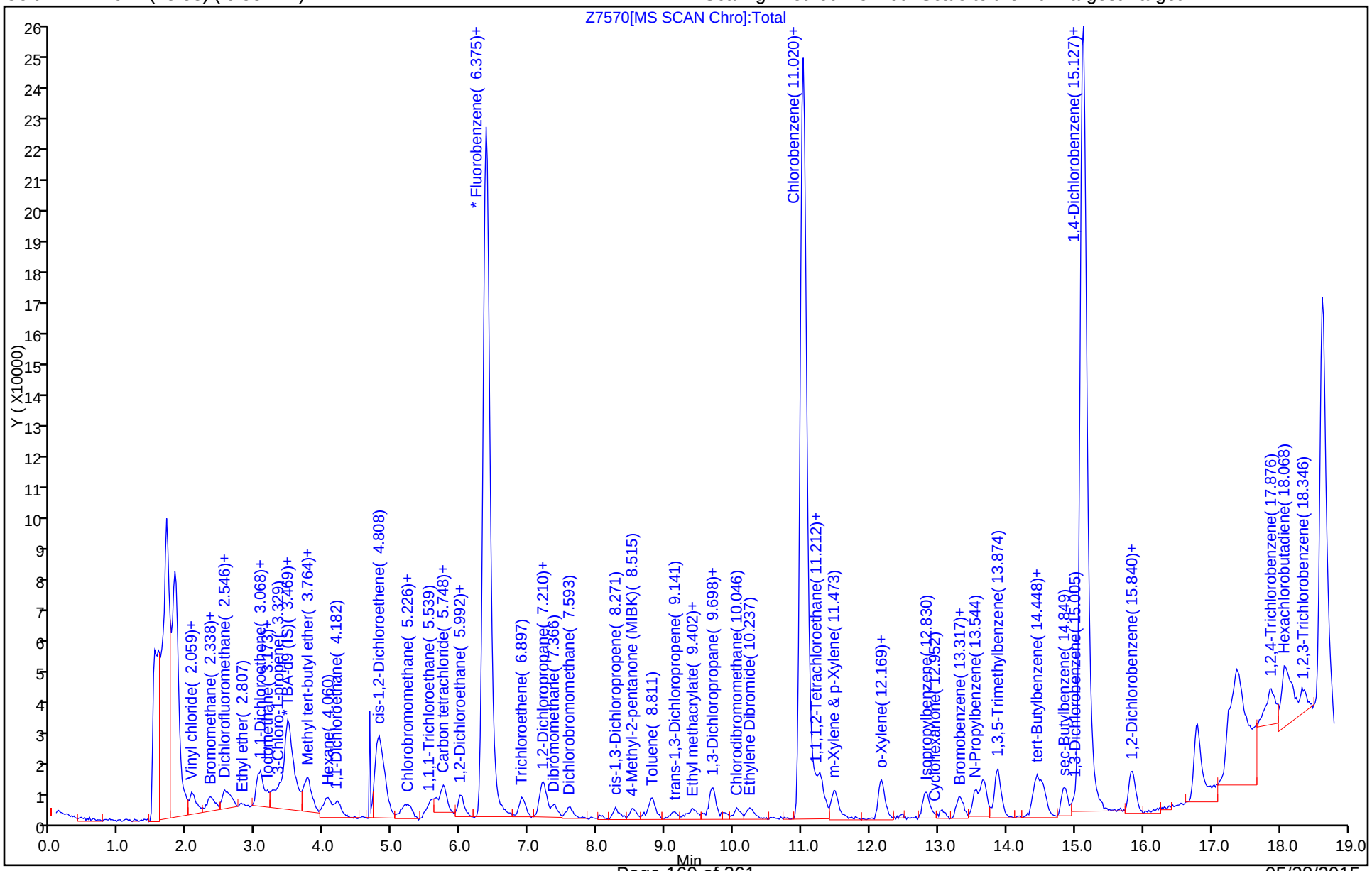
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	0.15	Units: uL
MV-Gas/Ket A_00032	Amount Added:	0.15	Units: uL
MV-2cleve+AVA_00009	Amount Added:	0.15	Units: uL

Report Date: 14-May-2015 14:33:00 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7570.D				
Injection Date:	14-May-2015 08:19:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

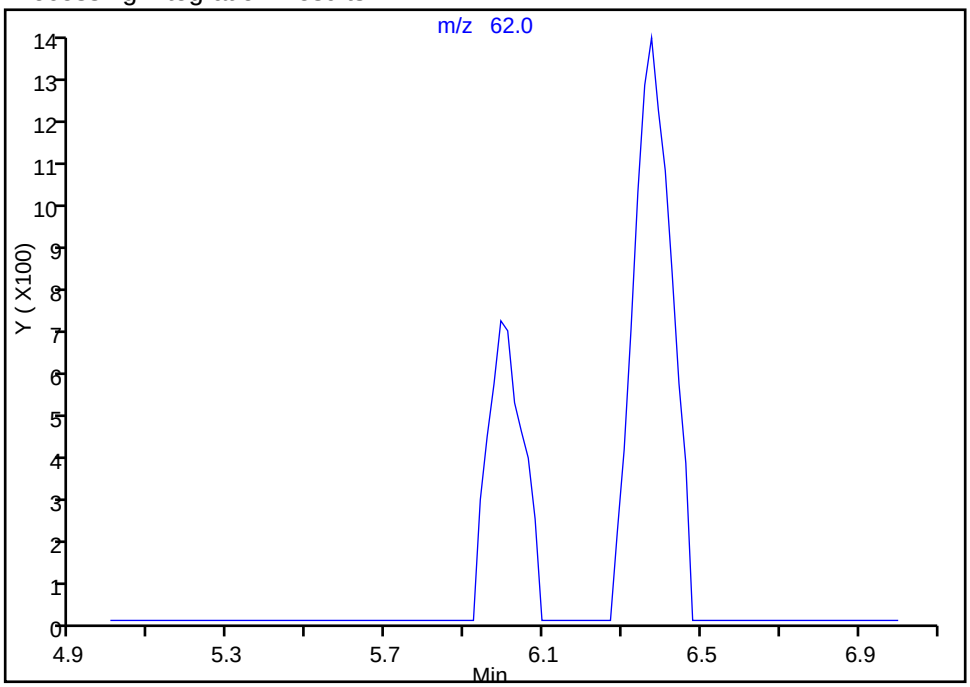
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7570.D				
Injection Date:	14-May-2015 08:19:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

82 1,2-Dichloroethane, CAS: 107-06-2

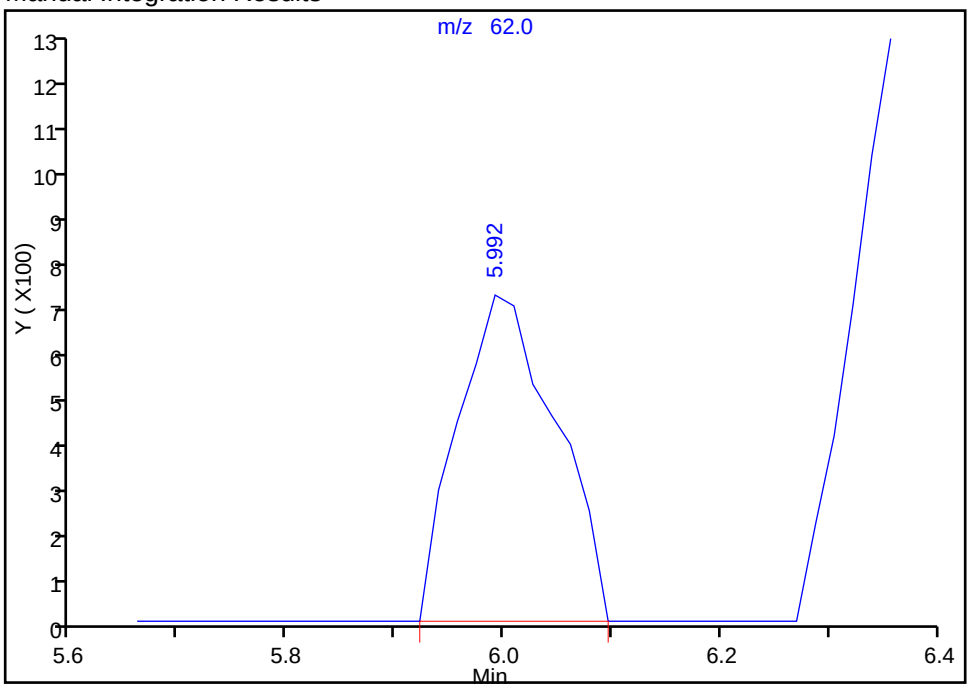
Not Detected
Expected RT: 5.99

Processing Integration Results



RT: 5.99
Area: 4317
Amount: 0.302128
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 14-May-2015 12:41:39
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-May-2015 08:42:30 ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:02 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 09:11:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.488	3.489	-0.001	76	125800	250.0	250.0	
* 2 Fluorobenzene	96	6.377	6.377	0.000	97	734158	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.023	11.023	0.000	86	179826	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.112	0.000	96	297034	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.472	5.473	0.000	46	45483	1.00	1.31	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.907	5.908	-0.001	75	19720	1.00	1.31	
$ 10 Toluene-d8 (Surr)	98	8.691	8.692	-0.001	78	80061	1.00	1.33	
$ 11 4-Bromofluorobenzene (Surr	95	13.058	13.059	-0.001	75	45168	1.00	1.43	
27 Dichlorodifluoromethane	85	1.905	1.923	-0.018	74	25581	1.00	0.9160	
30 Chloromethane	50	1.974	1.992	-0.018	68	17819	1.00	0.9820	
31 Butadiene	54	2.079	2.097	-0.018	68	11491	NC	NC	
32 Vinyl chloride	62	2.096	2.114	-0.018	54	17203	1.00	0.9824	
35 Bromomethane	94	2.340	2.340	0.000	72	20286	1.00	1.08	
36 Chloroethane	64	2.392	2.393	-0.001	55	12373	1.00	1.03	
37 Dichlorofluoromethane	67	2.548	2.549	-0.001	94	49854	1.00	1.04	
38 Trichlorofluoromethane	101	2.601	2.601	0.000	88	43732	1.00	1.05	
40 Ethyl ether	59	2.792	2.810	-0.018	83	7198	1.00	0.9070	a
44 Acrolein	56	2.914	2.915	-0.001	48	2869	10.0	6.10	
48 Acetone	43		3.036				ND	ND	
45 1,1-Dichloroethene	96	3.036	3.036	0.000	89	20263	1.00	1.05	
46 1,1,2-Trichloro-1,2,2-trif	151	3.088	3.089	-0.001	84	28872	1.00	0.99	
49 Iodomethane	142	3.192	3.193	-0.001	97	48920	1.00	0.9659	
50 Carbon disulfide	76	3.279	3.280	-0.001	97	63190	1.00	0.9585	
52 3-Chloro-1-propene	41	3.349	3.350	-0.001	67	26566	1.00	0.9319	
51 Methyl acetate	43	3.349	3.350	-0.001	68	19687	5.00	4.96	
54 Methylene Chloride	84	3.471	3.471	0.000	55	21464	1.00	1.30	
55 2-Methyl-2-propanol	59		3.558				ND	ND	
58 Acrylonitrile	53	3.680	3.680	0.000	82	12393	10.0	9.71	
57 trans-1,2-Dichloroethene	96	3.767	3.767	-0.001	85	20928	1.00	1.00	
56 Methyl tert-butyl ether	73	3.784	3.785	-0.001	1	28634	1.00	0.9605	
59 Hexane	57	4.062	4.063	-0.001	81	32919	1.00	1.09	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.202	4.202	0.000	58	36549	1.00	0.9851	
61 Vinyl acetate	43	4.219	4.220	-0.001	50	38138	2.00	2.13	
67 2-Butanone (MEK)	43	4.845	4.881	-0.036	27	9653	4.00	4.47	
65 cis-1,2-Dichloroethene	96	4.880	4.881	-0.001	80	20335	1.00	0.9863	
66 2,2-Dichloropropane	77	4.898	4.898	0.000	65	45174	1.00	0.6994	M
70 sec-Butyl Alcohol	45	5.106	5.107	-0.001	42	12273	30.0	30.9	
71 Chlorobromomethane	128	5.159	5.177	-0.018	72	9308	1.00	0.9376	
72 Tetrahydrofuran	42	5.246	5.264	-0.018	1	3306	2.00	2.31	a
74 Chloroform	83	5.246	5.264	-0.018	79	35742	1.00	0.9749	
75 1,1,1-Trichloroethane	97	5.541	5.542	-0.001	43	37006	1.00	1.02	
76 Cyclohexane	56	5.646	5.647	0.000	78	34102	1.00	1.02	
78 1,1-Dichloropropene	75	5.733	5.751	-0.018	75	29910	1.00	1.00	
77 Carbon tetrachloride	117	5.785	5.786	-0.001	65	36532	1.00	1.01	
80 Isobutyl alcohol	41		5.873				ND	ND	
82 1,2-Dichloroethane	62	5.994	5.995	-0.001	23	13698	1.00	0.9431	a
81 Benzene	78	6.011	6.012	-0.001	92	55268	1.00	0.9593	
84 n-Heptane	43	6.394	6.395	-0.001	37	34516	1.00	1.02	
85 Trichloroethene	95	6.899	6.899	0.000	79	25255	1.00	1.01	
89 2-Pentanone	43	7.142	7.143	-0.001	67	21064	4.00	4.52	
90 1,2-Dichloropropane	63	7.194	7.195	-0.001	61	18273	1.00	0.9200	
87 Methylcyclohexane	55	7.212	7.213	-0.001	85	32310	1.00	1.14	
92 Dibromomethane	93	7.368	7.369	-0.001	80	10692	1.00	0.9630	
94 Dichlorobromomethane	83	7.595	7.595	0.000	75	30143	1.00	0.9608	
96 2-Chloroethyl vinyl ether	63	8.047	8.048	-0.001	24	5902	1.00	0.9392	
97 cis-1,3-Dichloropropene	75	8.256	8.274	-0.018	57	24796	1.00	0.9654	
98 4-Methyl-2-pentanone (MIBK	43	8.517	8.518	-0.001	57	23945	4.00	3.66	
99 Toluene	91	8.795	8.796	-0.001	85	59869	1.00	0.9736	
100 trans-1,3-Dichloropropene	75	9.126	9.127	-0.001	56	16439	1.00	0.9349	
101 Ethyl methacrylate	69	9.335	9.318	0.017	56	15393	1.00	1.06	
102 1,1,2-Trichloroethane	97	9.404	9.405	-0.001	33	10364	1.00	0.9383	
104 1,3-Dichloropropane	76	9.683	9.666	0.017	44	17195	1.00	0.9280	
103 Tetrachloroethene	164	9.700	9.701	-0.001	91	22465	1.00	0.9897	
105 2-Hexanone	43	9.857	9.840	0.017	63	18756	4.00	4.37	
107 Chlorodibromomethane	129	10.048	10.049	-0.001	52	19815	1.00	0.8913	
109 Ethylene Dibromide	107	10.240	10.223	0.017	48	13455	1.00	0.9156	
111 Chlorobenzene	112	11.075	11.058	0.017	47	42476	1.00	0.9635	
110 1-Chlorohexane	91	11.057	11.058	-0.001	37	30065	1.00	1.04	
113 1,1,1,2-Tetrachloroethane	131	11.214	11.215	-0.001	41	19896	1.00	0.9088	
112 Ethylbenzene	106	11.266	11.267	-0.001	83	21968	1.00	1.01	
114 m-Xylene & p-Xylene	106	11.475	11.476	-0.001	89	28612	1.00	1.00	
115 o-Xylene	106	12.154	12.154	0.000	84	24390	1.00	0.9788	
116 Styrene	104	12.171	12.172	-0.001	79	37585	1.00	0.9526	
117 Bromoform	173	12.467	12.450	0.017	56	9656	1.00	0.8244	
118 Isopropylbenzene	105	12.815	12.816	-0.001	73	79344	1.00	1.03	
119 Cyclohexanone	55	12.937	12.937	0.000	49	11171	40.0	57.3	
121 Bromobenzene	156	13.302	13.303	-0.001	85	19615	1.00	0.9608	
122 1,1,2,2-Tetrachloroethane	83	13.319	13.320	-0.001	5	13189	1.00	0.9391	
124 1,2,3-Trichloropropane	110	13.372	13.372	0.000	21	2746	1.00	0.8502	
125 trans-1,4-Dichloro-2-buten	53	13.406	13.425	-0.019	1	1766	1.00	0.7075	
123 N-Propylbenzene	120	13.546	13.546	0.000	86	21507	1.00	1.04	
126 2-Chlorotoluene	126	13.667	13.668	-0.001	47	17668	1.00	1.01	a
128 4-Chlorotoluene	126	13.859	13.860	-0.001	82	20620	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
127 1,3,5-Trimethylbenzene	105	13.876	13.877	-0.001	82	61493	1.00	1.03	
129 tert-Butylbenzene	119	14.451	14.451	0.000	82	72520	1.00	1.04	
130 1,2,4-Trimethylbenzene	105	14.538	14.538	0.000	84	60654	1.00	1.05	
131 sec-Butylbenzene	134	14.833	14.851	-0.018	63	19226	1.00	1.03	
132 1,3-Dichlorobenzene	146	14.990	15.008	-0.018	19	34053	1.00	0.9764	
133 4-Isopropyltoluene	119	15.129	15.130	-0.001	47	82287	1.00	1.05	
134 1,4-Dichlorobenzene	146	15.164	15.165	-0.001	41	42576	1.00	1.02	
138 1,2-Dichlorobenzene	146	15.808	15.808	0.000	67	29188	1.00	0.9572	
137 n-Butylbenzene	91	15.843	15.843	0.000	88	71715	1.00	1.06	
139 1,2-Dibromo-3-Chloropropan	157	16.939	16.940	-0.001	7	1733	1.00	0.7427	
141 1,2,4-Trichlorobenzene	180	17.878	17.862	0.016	59	21668	1.00	1.02	
142 Hexachlorobutadiene	225	18.070	18.071	-0.001	79	22349	1.00	1.08	
143 Naphthalene	128	18.105	18.088	0.017	53	20101	1.00	0.9866	
144 1,2,3-Trichlorobenzene	180	18.348	18.349	-0.001	56	16291	1.00	1.00	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		4.00	3.65	
S 150 Xylenes, Total (URS)	1				0		2.00	1.98	
S 151 Total BTEX	1				0			4.92	
S 148 1,3-Dichloropropene, Total	1				0		2.00	1.90	
S 145 1,2-Dichloroethene, Total	1				0		2.00	1.99	
S 146 Xylenes, Total	106				0		2.00	1.98	
S 147 1,2-Dichloroethene, Total	96				0		2.00	1.99	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

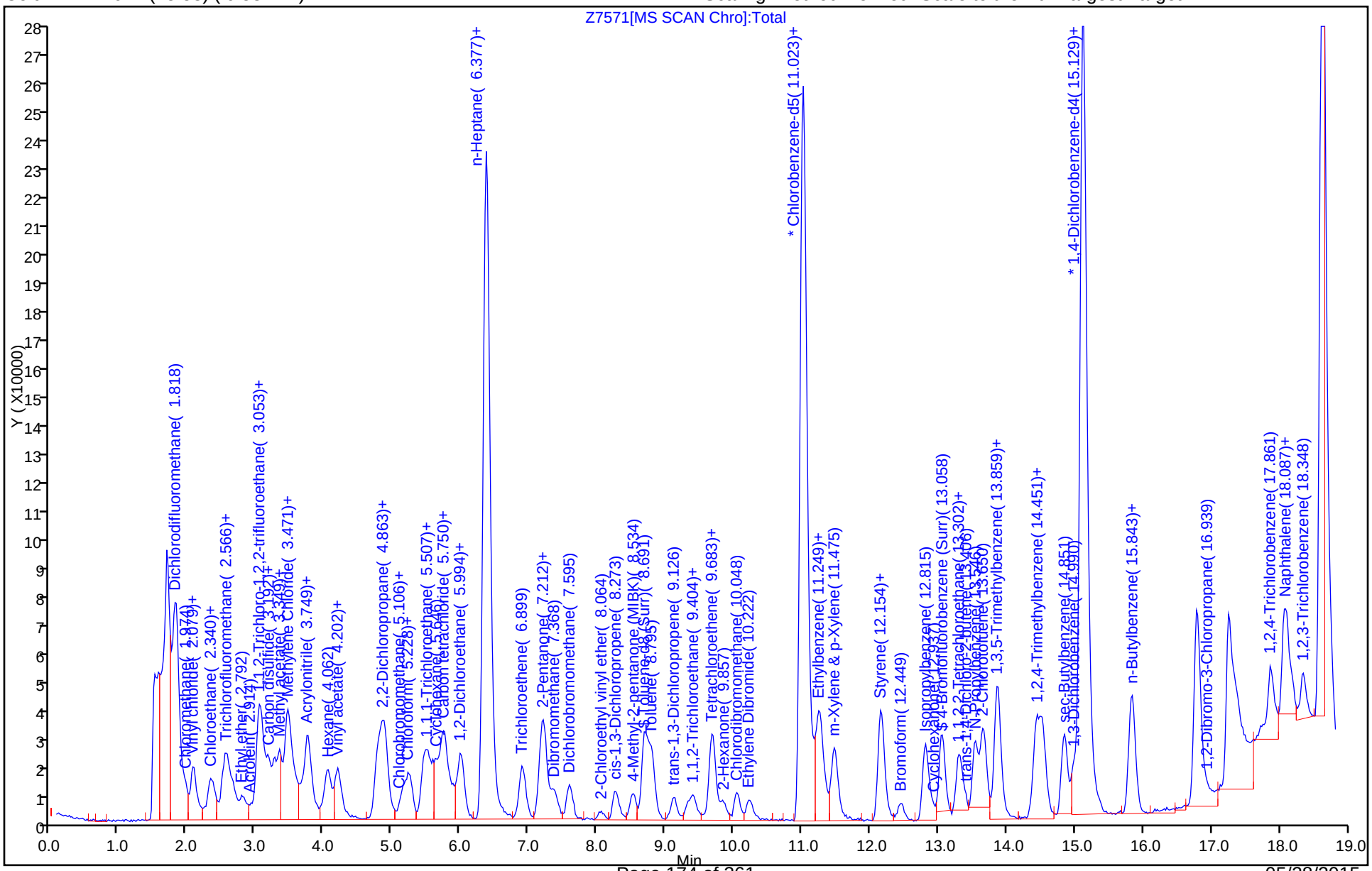
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	0.50	Units: uL
MV-Gas/Ket A_00032	Amount Added:	0.50	Units: uL
MV-2cleve+AVA_00009	Amount Added:	0.50	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.08	Units: uL

Report Date: 14-May-2015 14:33:02 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D				
Injection Date:	14-May-2015 08:42:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

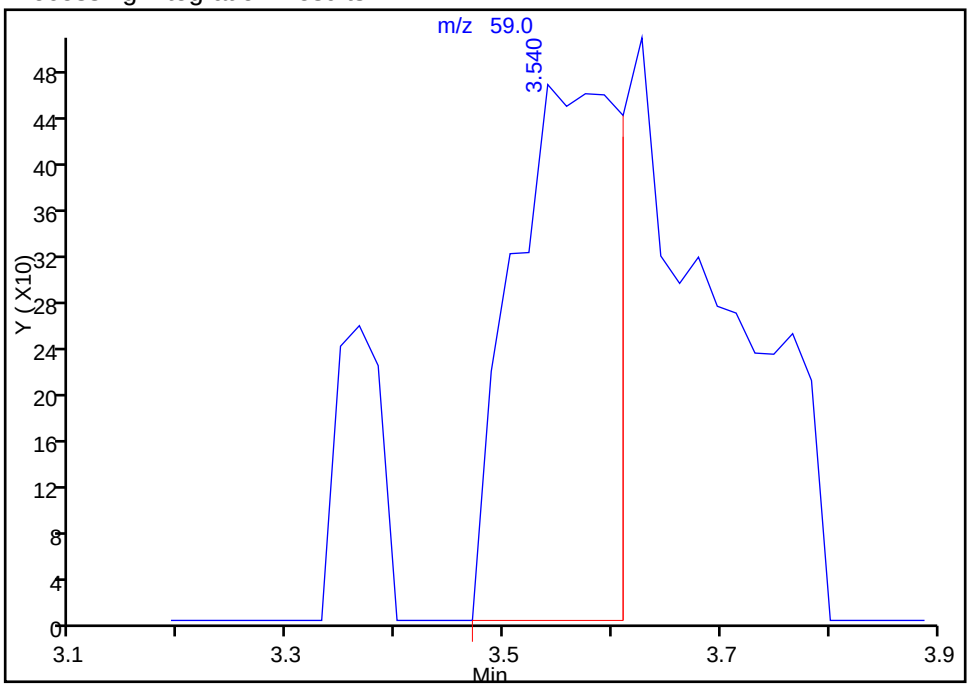
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D				
Injection Date:	14-May-2015 08:42:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

40 Ethyl ether, CAS: 60-29-7

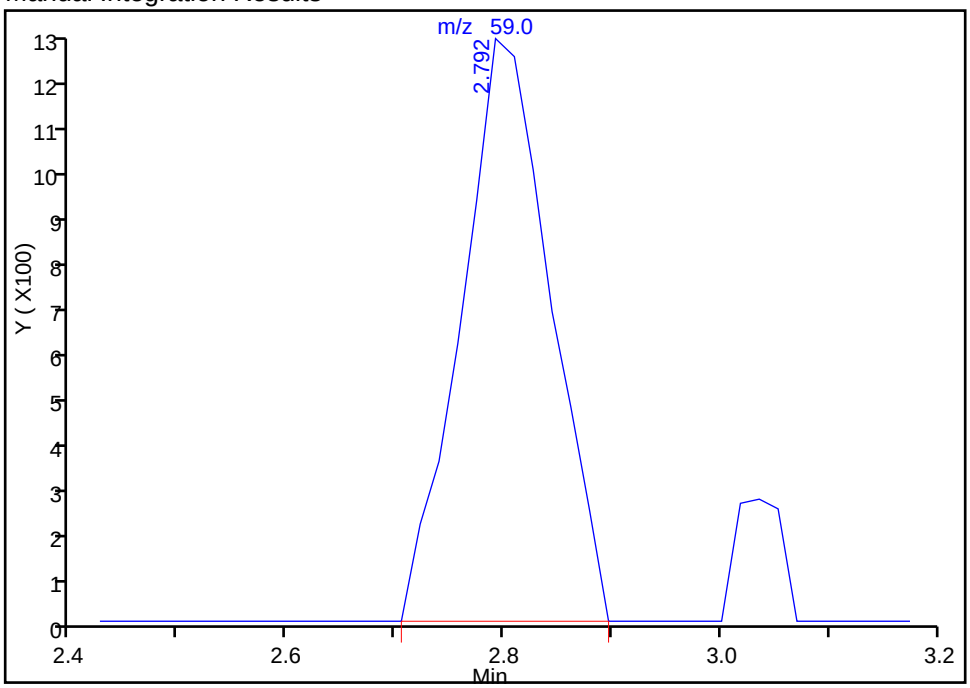
Processing Integration Results

RT: 3.54
Area: 3281
Amount: 1.090831
Amount Units: ug/l



Manual Integration Results

RT: 2.79
Area: 7198
Amount: 0.906981
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 11:38:41
Audit Action: Assigned Compound ID
Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

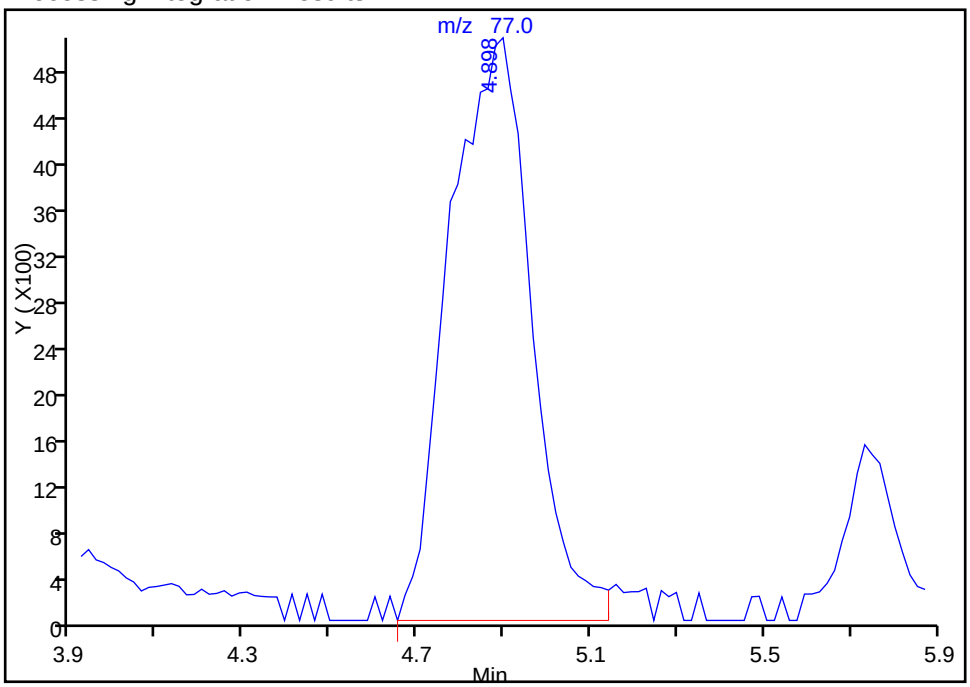
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D				
Injection Date:	14-May-2015 08:42:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

66 2,2-Dichloropropane, CAS: 594-20-7

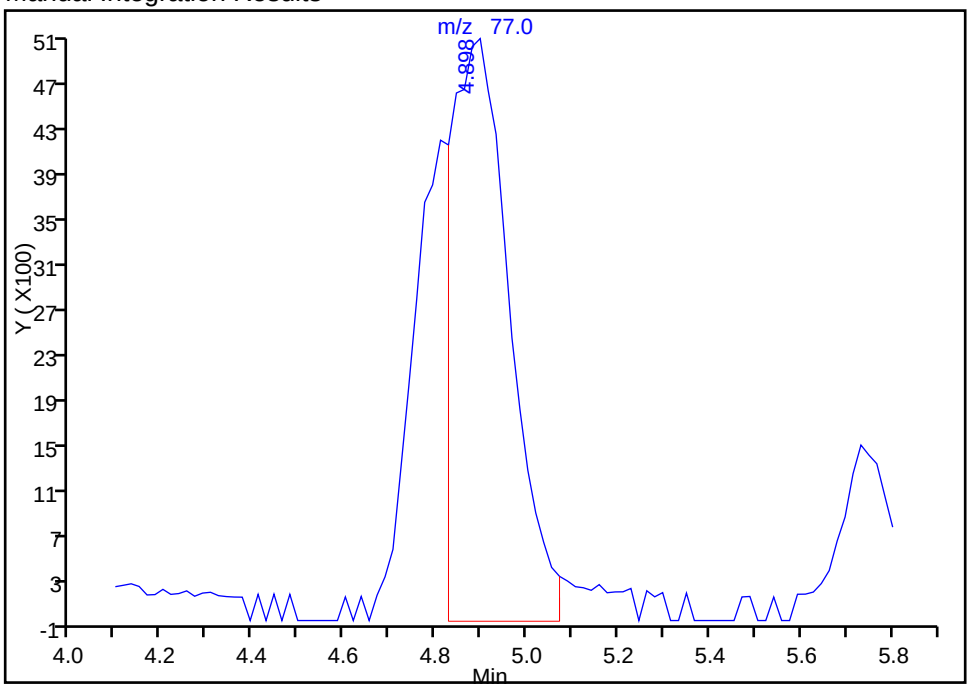
Processing Integration Results

RT: 4.90
Area: 65904
Amount: 1.002292
Amount Units: ug/l



Manual Integration Results

RT: 4.90
Area: 45174
Amount: 0.699411
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:43:20
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

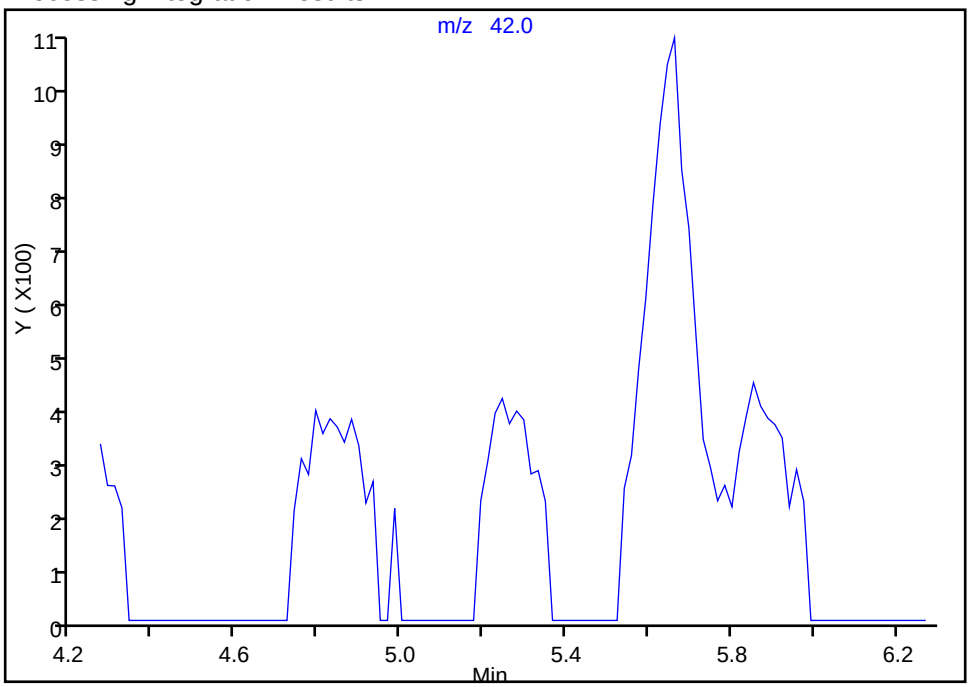
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D				
Injection Date:	14-May-2015 08:42:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

72 Tetrahydrofuran, CAS: 109-99-9

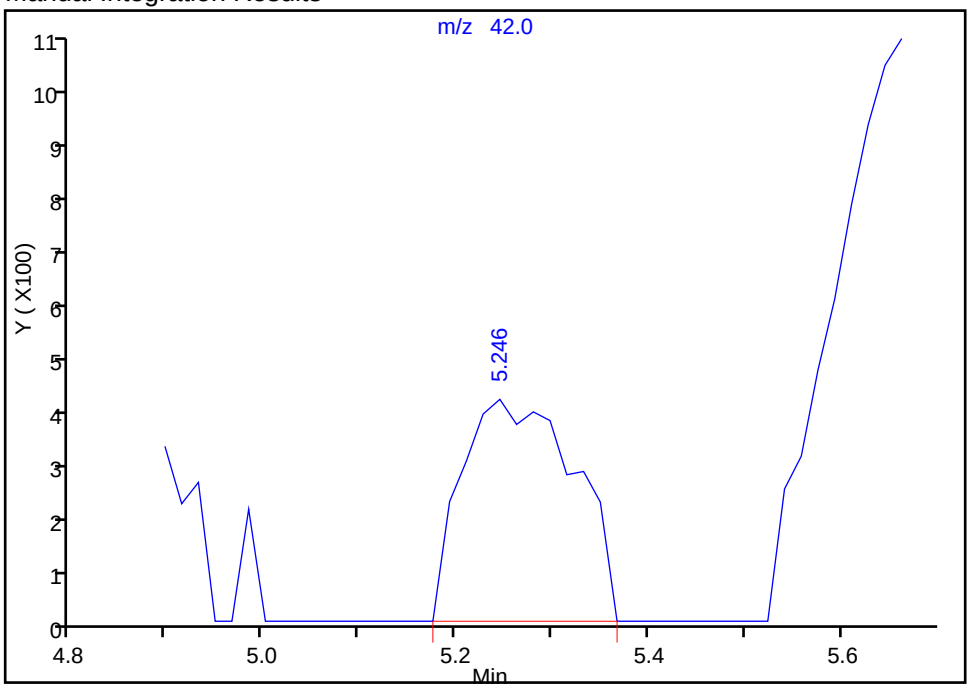
Processing Integration Results

Not Detected
Expected RT: 5.26



Manual Integration Results

RT: 5.25
Area: 3306
Amount: 2.306823
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 11:38:41
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

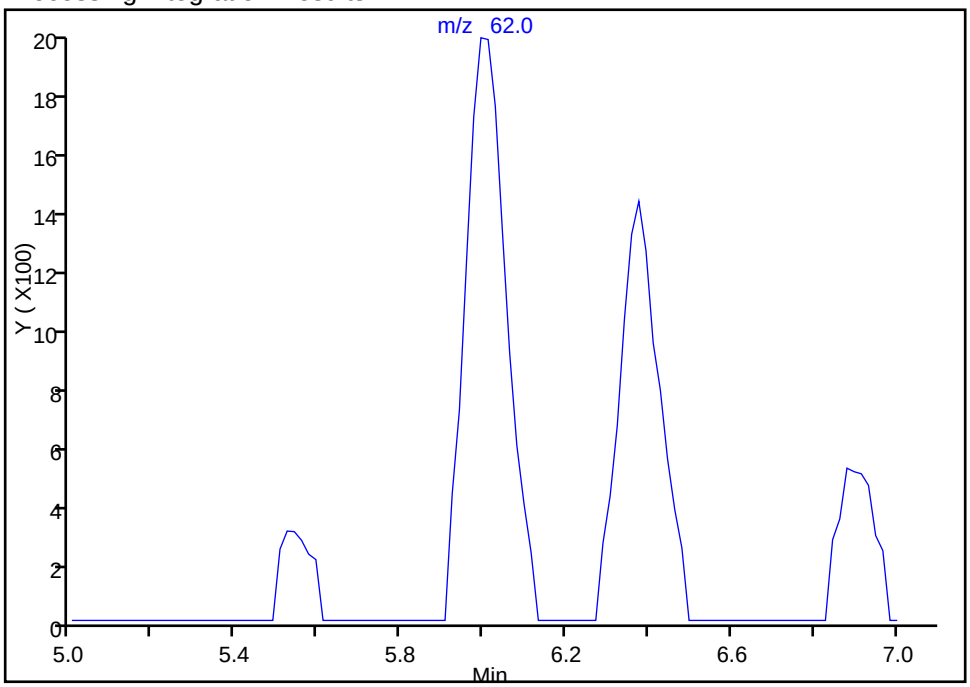
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D				
Injection Date:	14-May-2015 08:42:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

82 1,2-Dichloroethane, CAS: 107-06-2

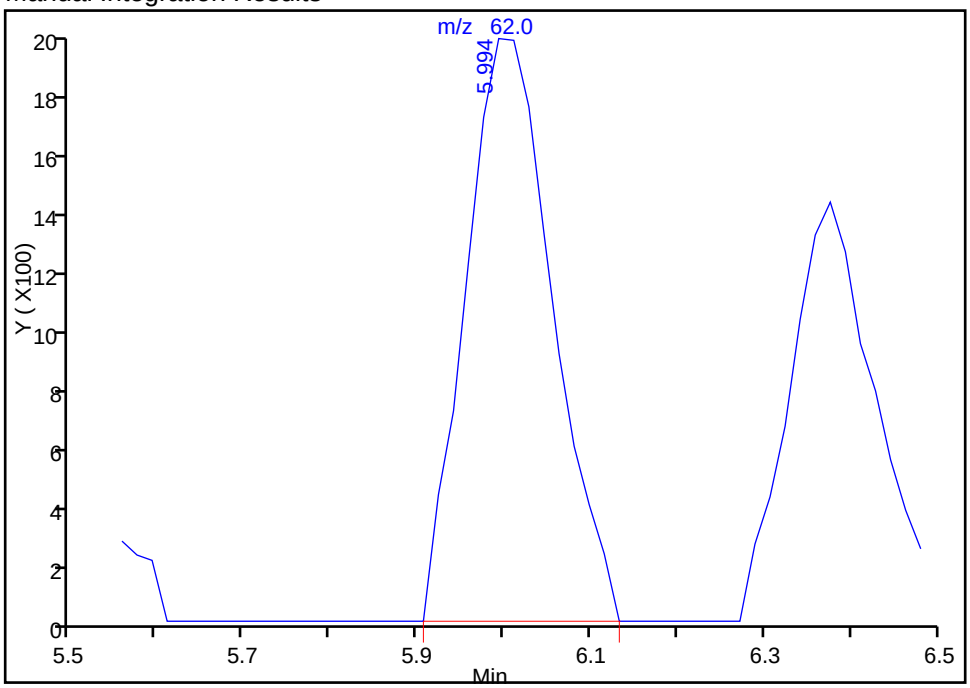
Not Detected
Expected RT: 5.99

Processing Integration Results



Manual Integration Results

RT: 5.99
Area: 13698
Amount: 0.943121
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 11:38:41
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

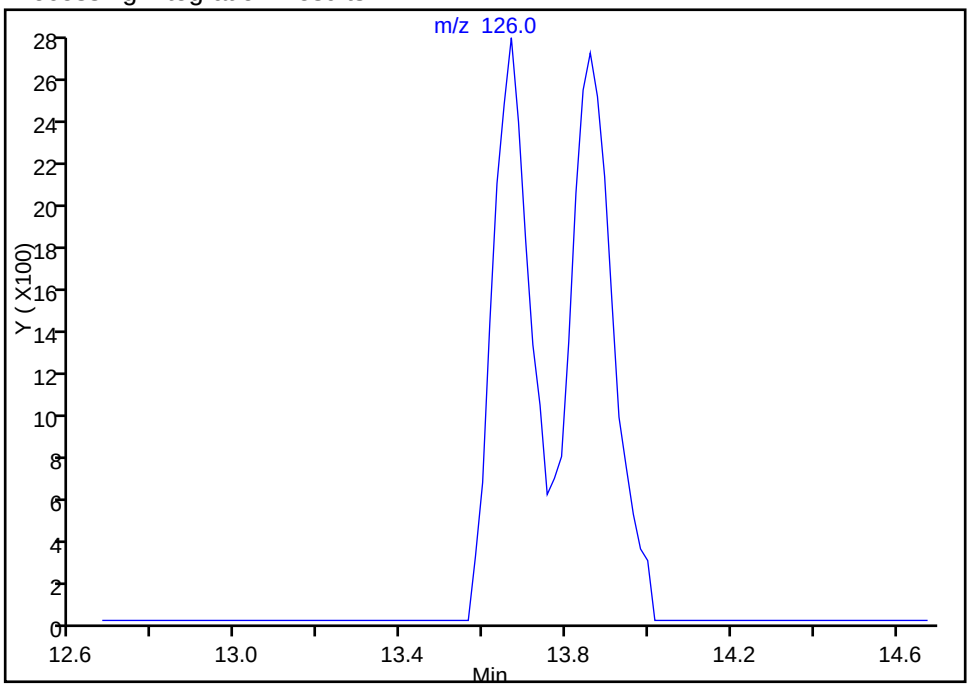
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7571.D				
Injection Date:	14-May-2015 08:42:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

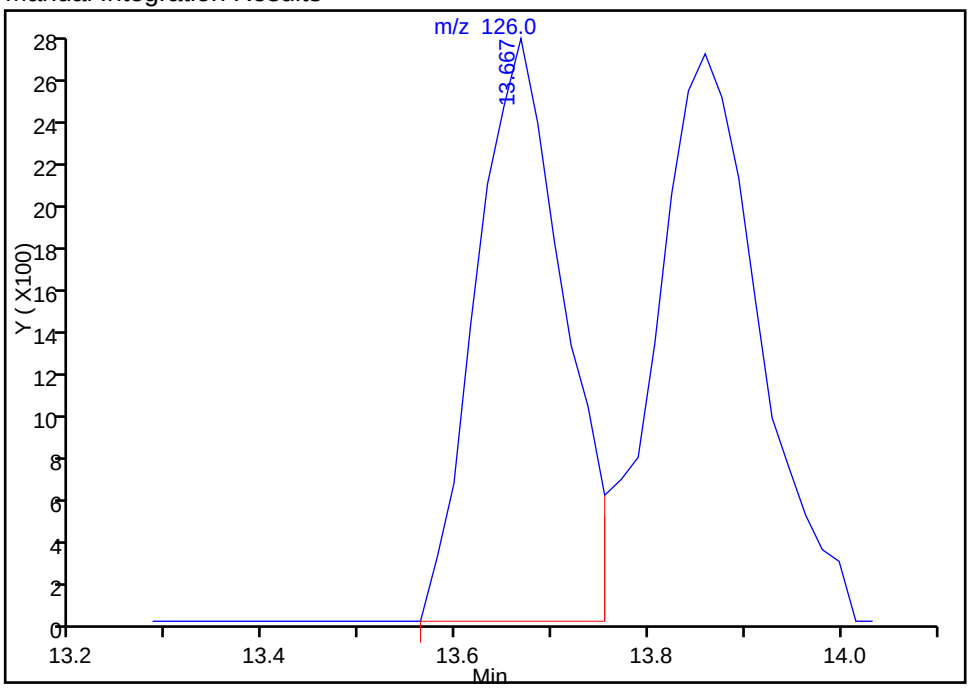
Not Detected
Expected RT: 13.67

Processing Integration Results



Manual Integration Results

RT: 13.67
Area: 17668
Amount: 1.012830
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 11:38:41
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7572.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-May-2015 09:05:30 ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:03 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 09:59:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.454	3.489	-0.035	72	141836	250.0	250.0	
* 2 Fluorobenzene	96	6.360	6.377	-0.017	97	738606	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.023	11.023	0.000	84	183625	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.112	0.000	96	308463	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.455	5.473	-0.017	51	80799	2.00	2.32	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.890	5.908	-0.018	87	35910	2.00	2.37	
$ 10 Toluene-d8 (Surr)	98	8.691	8.692	-0.001	89	136773	2.00	2.23	
$ 11 4-Bromofluorobenzene (Surr	95	13.059	13.059	0.000	80	79272	2.00	2.42	
27 Dichlorodifluoromethane	85	1.888	1.923	-0.035	76	41538	2.00	1.48	
30 Chloromethane	50	1.940	1.992	-0.052	88	29530	2.00	1.62	M
31 Butadiene	54	2.044	2.097	-0.053	68	19623	NC	NC	
32 Vinyl chloride	62	2.079	2.114	-0.035	85	29350	2.00	1.67	
35 Bromomethane	94	2.305	2.340	-0.035	78	34982	2.00	1.85	
36 Chloroethane	64	2.358	2.393	-0.035	65	22092	2.00	1.83	
37 Dichlorofluoromethane	67	2.514	2.549	-0.035	93	90320	2.00	1.87	
38 Trichlorofluoromethane	101	2.566	2.601	-0.035	94	75673	2.00	1.81	
40 Ethyl ether	59	2.758	2.810	-0.052	81	16778	2.00	2.10	
44 Acrolein	56	2.880	2.915	-0.035	52	10834	20.0	22.9	
48 Acetone	43	3.001	3.036	-0.035	13	5952	8.00	6.68	
45 1,1-Dichloroethene	96	3.001	3.036	-0.035	93	32796	2.00	1.68	
46 1,1,2-Trichloro-1,2,2-trif	151	3.071	3.089	-0.018	87	53342	2.00	1.82	
49 Iodomethane	142	3.158	3.193	-0.035	97	96279	2.00	1.89	
50 Carbon disulfide	76	3.245	3.280	-0.035	97	123871	2.00	1.87	
52 3-Chloro-1-propene	41	3.315	3.350	-0.035	78	56312	2.00	1.96	
51 Methyl acetate	43	3.315	3.350	-0.035	70	41155	10.0	10.3	
54 Methylene Chloride	84	3.436	3.471	-0.035	87	38072	2.00	2.29	
55 2-Methyl-2-propanol	59	3.541	3.558	-0.017	1	7306	20.0	3.27	M
58 Acrylonitrile	53	3.663	3.680	-0.017	84	27995	20.0	21.8	
57 trans-1,2-Dichloroethene	96	3.732	3.767	-0.035	94	41434	2.00	1.97	
56 Methyl tert-butyl ether	73	3.750	3.785	-0.035	1	62146	2.00	2.07	
59 Hexane	57	4.028	4.063	-0.035	89	57755	2.00	1.87	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.167	4.202	-0.035	75	71215	2.00	1.91	
61 Vinyl acetate	43	4.202	4.220	-0.018	86	73404	4.00	4.07	
67 2-Butanone (MEK)	43	4.846	4.881	-0.035	36	18255	8.00	8.41	
65 cis-1,2-Dichloroethene	96	4.863	4.881	-0.018	74	39997	2.00	1.93	
66 2,2-Dichloropropane	77	4.881	4.898	-0.017	66	93631	2.00	2.29	
70 sec-Butyl Alcohol	45	5.072	5.107	-0.035	49	24776	60.0	55.4	
71 Chlorobromomethane	128	5.159	5.177	-0.018	88	20151	2.00	2.02	
72 Tetrahydrofuran	42	5.263	5.264	-0.001	33	6737	4.00	4.67	
74 Chloroform	83	5.246	5.264	-0.018	74	73220	2.00	1.99	
75 1,1,1-Trichloroethane	97	5.542	5.542	0.000	56	69711	2.00	1.90	
76 Cyclohexane	56	5.629	5.647	-0.017	77	62176	2.00	1.85	
78 1,1-Dichloropropene	75	5.716	5.751	-0.035	81	57317	2.00	1.90	
77 Carbon tetrachloride	117	5.751	5.786	-0.035	76	68190	2.00	1.88	
80 Isobutyl alcohol	41	5.838	5.873	-0.035	1	5794	50.0	39.2	M
82 1,2-Dichloroethane	62	5.994	5.995	-0.001	29	30420	2.00	2.08	
81 Benzene	78	5.994	6.012	-0.018	61	112077	2.00	1.93	
84 n-Heptane	43	6.394	6.395	-0.001	42	63437	2.00	1.87	
85 Trichloroethene	95	6.882	6.899	-0.017	89	48225	2.00	1.91	
89 2-Pentanone	43	7.125	7.143	-0.018	84	38172	8.00	8.15	
90 1,2-Dichloropropane	63	7.195	7.195	0.000	72	39697	2.00	1.99	
87 Methylcyclohexane	55	7.212	7.213	-0.001	87	57060	2.00	1.99	
92 Dibromomethane	93	7.352	7.369	-0.017	82	23266	2.00	2.08	
94 Dichlorobromomethane	83	7.595	7.595	0.000	89	63600	2.00	2.01	
96 2-Chloroethyl vinyl ether	63	8.048	8.048	0.000	58	13325	2.00	2.11	
97 cis-1,3-Dichloropropene	75	8.256	8.274	-0.018	71	52250	2.00	1.99	
98 4-Methyl-2-pentanone (MIBK	43	8.517	8.518	-0.001	51	54452	8.00	8.27	
99 Toluene	91	8.796	8.796	0.000	87	121599	2.00	1.97	
100 trans-1,3-Dichloropropene	75	9.126	9.127	-0.001	61	36024	2.00	2.04	
101 Ethyl methacrylate	69	9.335	9.318	0.017	66	31137	2.00	2.11	
102 1,1,2-Trichloroethane	97	9.405	9.405	0.000	67	23441	2.00	2.11	
104 1,3-Dichloropropane	76	9.666	9.666	0.000	67	38421	2.00	2.03	
103 Tetrachloroethene	164	9.683	9.701	-0.018	95	43799	2.00	1.89	
105 2-Hexanone	43	9.857	9.840	0.017	71	36995	8.00	8.43	
107 Chlorodibromomethane	129	10.049	10.049	0.000	75	45052	2.00	1.98	
109 Ethylene Dibromide	107	10.223	10.223	0.000	80	30316	2.00	2.02	
111 Chlorobenzene	112	11.058	11.058	0.000	54	87867	2.00	1.95	
110 1-Chlorohexane	91	11.058	11.058	0.000	43	55880	2.00	1.89	
113 1,1,1,2-Tetrachloroethane	131	11.214	11.215	-0.001	56	43837	2.00	1.96	
112 Ethylbenzene	106	11.267	11.267	0.000	94	42609	2.00	1.92	
114 m-Xylene & p-Xylene	106	11.475	11.476	-0.001	97	58710	2.00	2.00	
115 o-Xylene	106	12.154	12.154	0.000	87	50672	2.00	1.99	
116 Styrene	104	12.172	12.172	0.000	84	80359	2.00	1.99	
117 Bromoform	173	12.467	12.450	0.017	77	22771	2.00	1.90	
118 Isopropylbenzene	105	12.815	12.816	-0.001	88	156342	2.00	1.95	
119 Cyclohexanone	55	12.955	12.937	0.018	63	19734	80.0	105.2	
121 Bromobenzene	156	13.303	13.303	0.000	84	41804	2.00	1.97	
122 1,1,2,2-Tetrachloroethane	83	13.320	13.320	0.000	31	29572	2.00	2.03	
124 1,2,3-Trichloropropane	110	13.372	13.372	0.000	29	7018	2.00	2.09	
125 trans-1,4-Dichloro-2-buten	53	13.407	13.425	-0.018	1	5321	2.00	2.05	
123 N-Propylbenzene	120	13.546	13.546	0.000	87	42948	2.00	2.00	
126 2-Chlorotoluene	126	13.668	13.668	0.000	30	37094	2.00	2.05	a
128 4-Chlorotoluene	126	13.859	13.860	-0.001	94	41338	2.00	2.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.877	13.877	0.000	87	123839	2.00	2.00	
129 tert-Butylbenzene	119	14.451	14.451	0.000	83	141668	2.00	1.96	
130 1,2,4-Trimethylbenzene	105	14.538	14.538	0.000	93	117017	2.00	1.95	
131 sec-Butylbenzene	134	14.851	14.851	0.000	64	38335	2.00	1.98	
132 1,3-Dichlorobenzene	146	14.990	15.008	-0.018	36	71904	2.00	1.99	
133 4-Isopropyltoluene	119	15.130	15.130	0.000	57	157566	2.00	1.93	
134 1,4-Dichlorobenzene	146	15.164	15.165	-0.001	52	89749	2.00	2.07	
138 1,2-Dichlorobenzene	146	15.808	15.808	0.000	80	65674	2.00	2.07	
137 n-Butylbenzene	91	15.843	15.843	0.000	92	139293	2.00	1.98	
139 1,2-Dibromo-3-Chloropropan	157	16.939	16.940	-0.001	18	4887	2.00	2.02	
141 1,2,4-Trichlorobenzene	180	17.862	17.862	0.000	83	46297	2.00	2.10	
142 Hexachlorobutadiene	225	18.070	18.071	-0.001	89	43774	2.00	2.04	
143 Naphthalene	128	18.105	18.088	0.017	77	44685	2.00	2.11	
144 1,2,3-Trichlorobenzene	180	18.349	18.349	0.000	51	37582	2.00	2.23	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		8.00	7.89	
S 150 Xylenes, Total (URS)	1				0		4.00	3.99	
S 151 Total BTEX	1				0			9.82	
S 148 1,3-Dichloropropene, Total	1				0		4.00	4.03	
S 145 1,2-Dichloroethene, Total	1				0		4.00	3.90	
S 146 Xylenes, Total	106				0		4.00	3.99	
S 147 1,2-Dichloroethene, Total	96				0		4.00	3.90	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

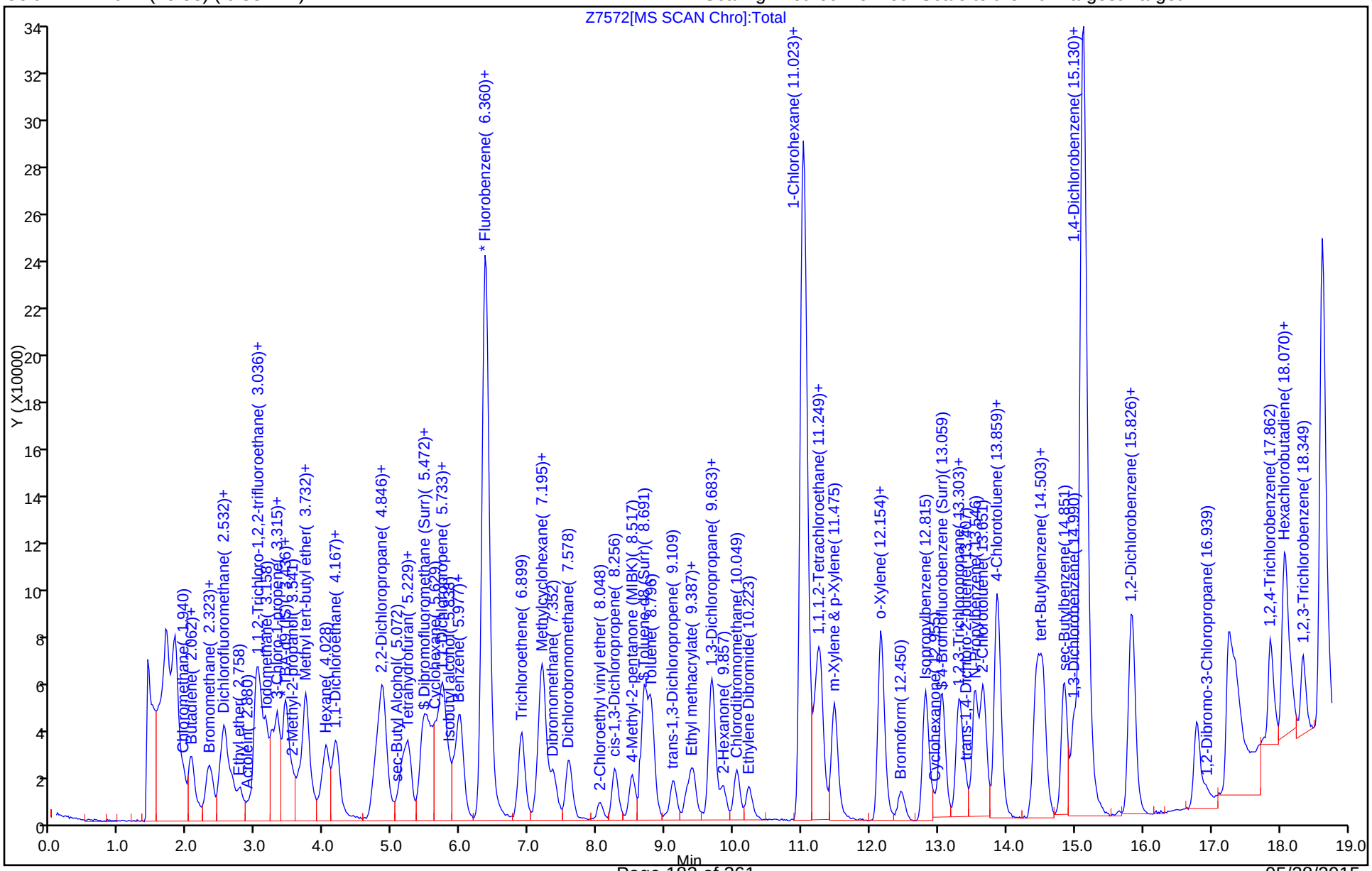
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	1.00	Units: uL
MV-Gas/Ket A_00032	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00009	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.16	Units: uL

Report Date: 14-May-2015 14:33:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7572.D				
Injection Date:	14-May-2015 09:05:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

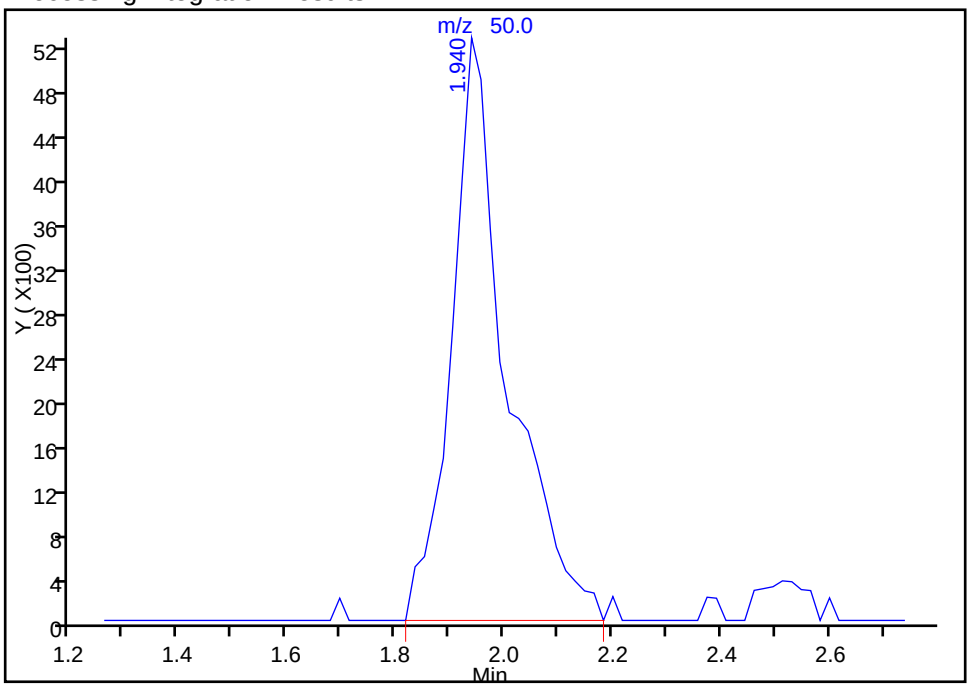
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7572.D				
Injection Date:	14-May-2015 09:05:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

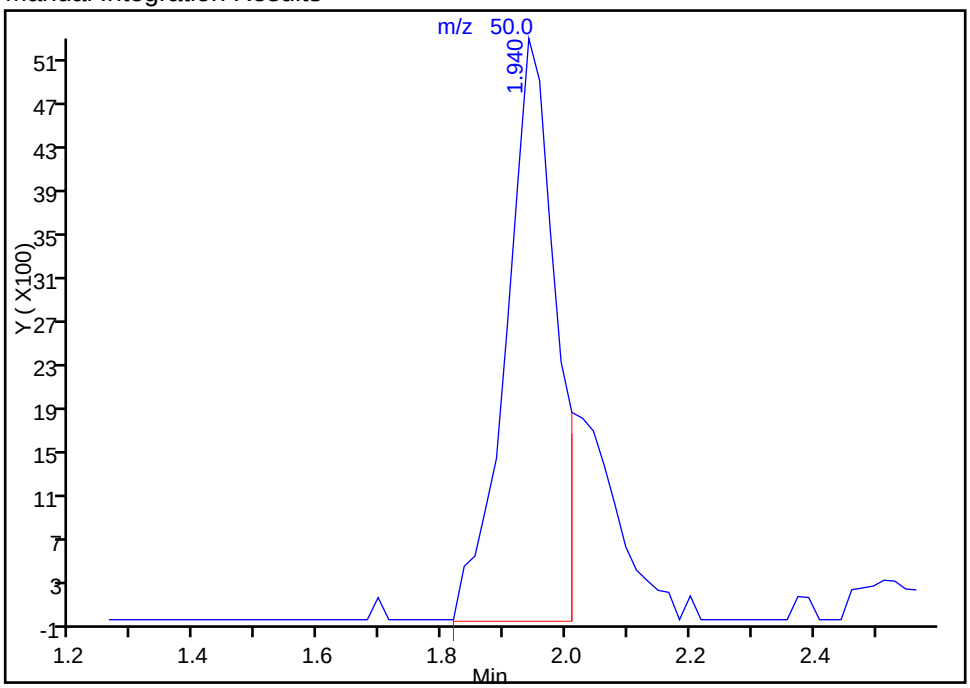
Processing Integration Results

RT: 1.94
Area: 37676
Amount: 2.003399
Amount Units: ug/l



Manual Integration Results

RT: 1.94
Area: 29530
Amount: 1.617605
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:47:23
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

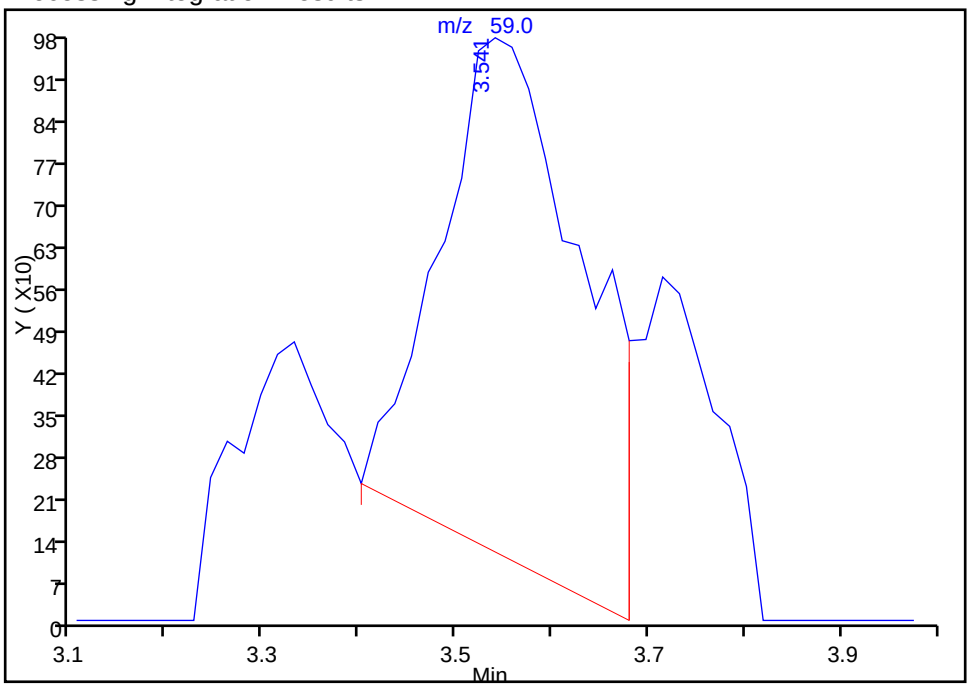
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7572.D				
Injection Date:	14-May-2015 09:05:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

55 2-Methyl-2-propanol, CAS: 75-65-0

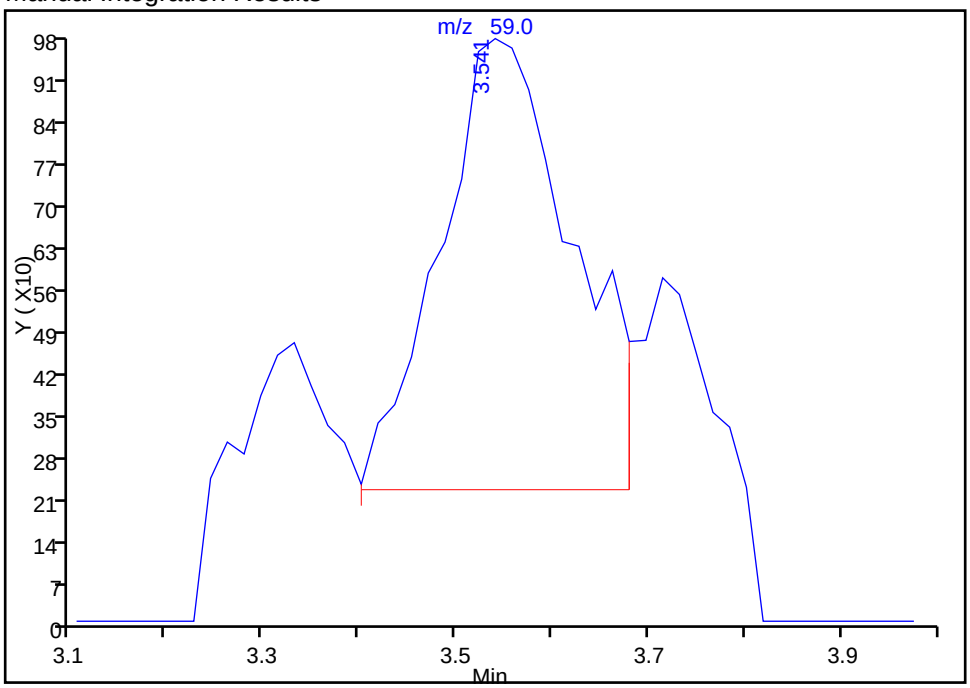
Processing Integration Results

RT: 3.54
Area: 9187
Amount: 24.167653
Amount Units: ug/l



Manual Integration Results

RT: 3.54
Area: 7306
Amount: 3.267444
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:47:23
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

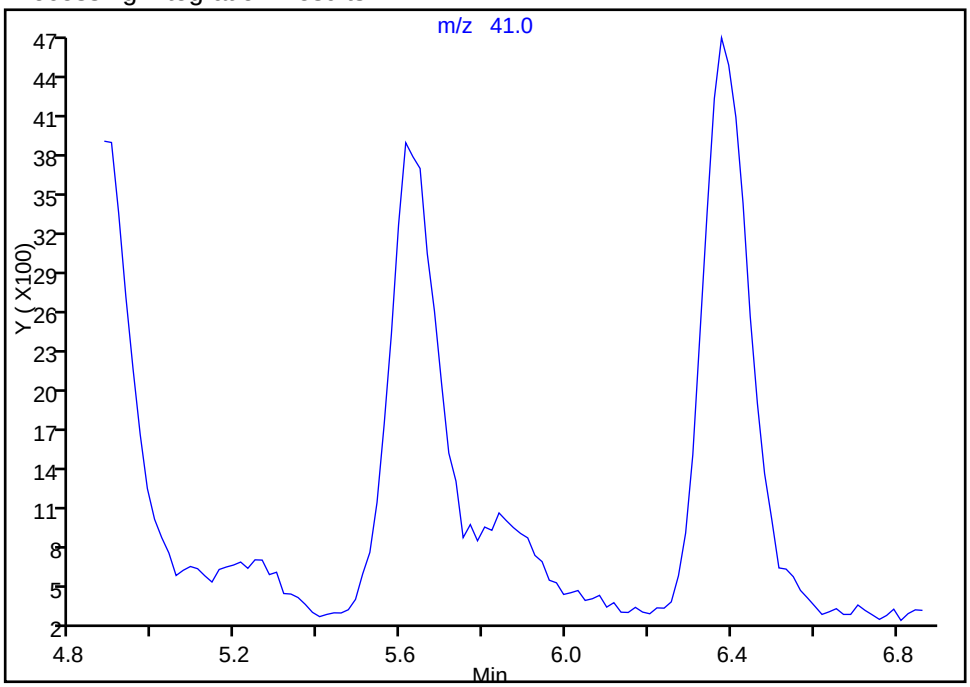
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7572.D				
Injection Date:	14-May-2015 09:05:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

80 Isobutyl alcohol, CAS: 78-83-1

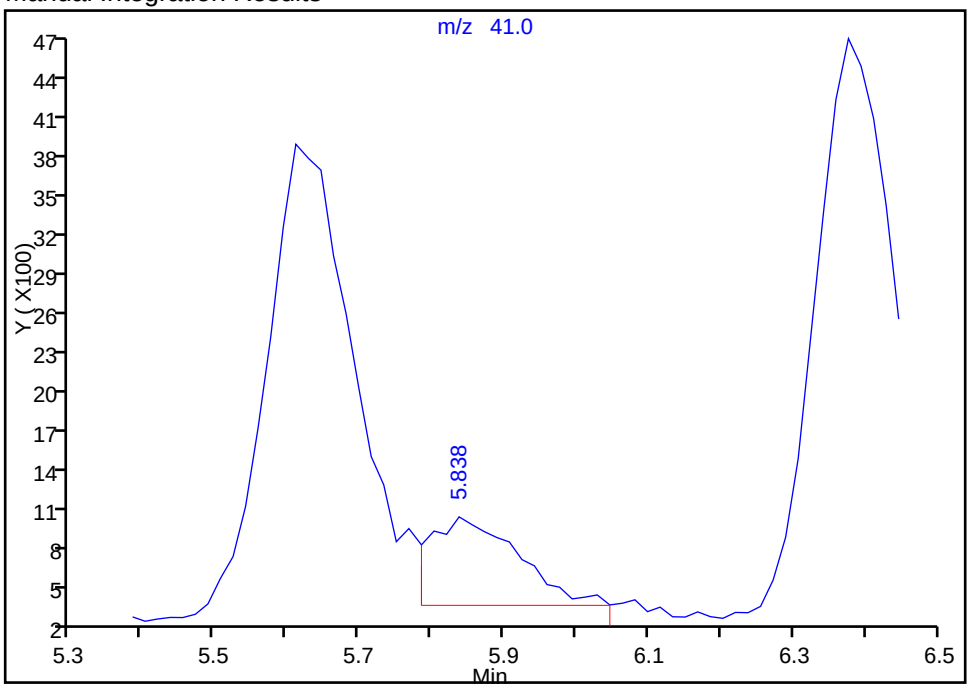
Not Detected
Expected RT: 5.87

Processing Integration Results



Manual Integration Results

RT: 5.84
Area: 5794
Amount: 39.186208
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:47:23
Audit Action: Manually Integrated
Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

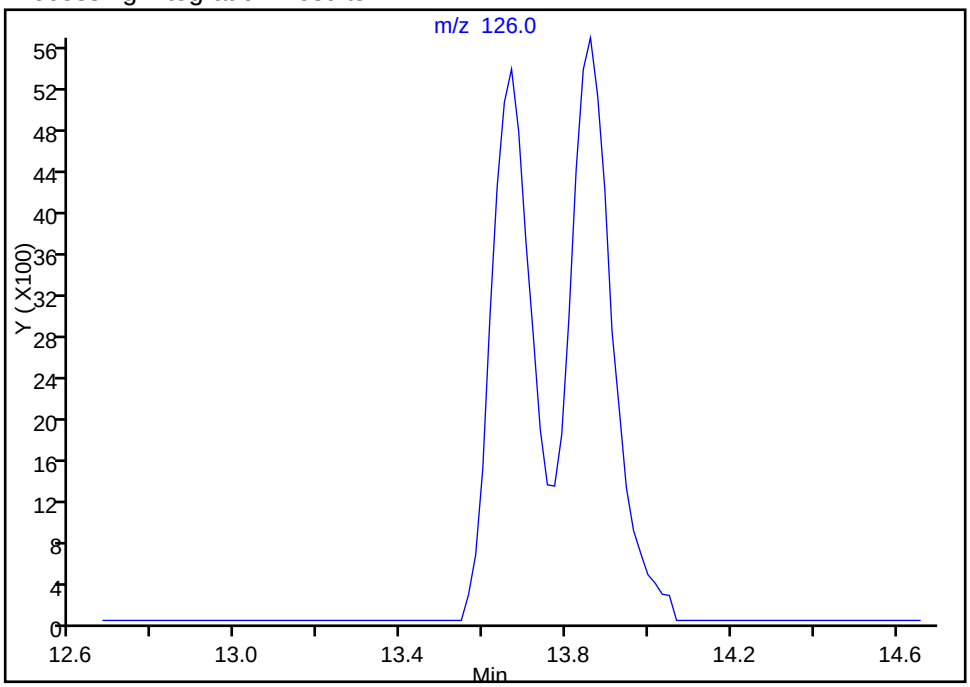
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7572.D				
Injection Date:	14-May-2015 09:05:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

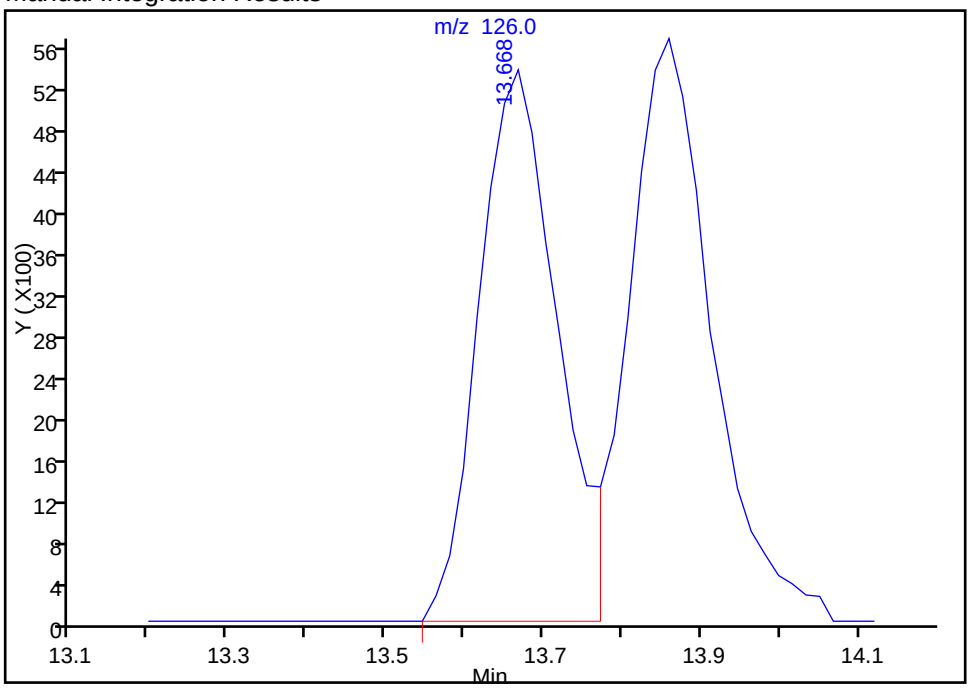
Not Detected
Expected RT: 13.67

Processing Integration Results



Manual Integration Results

RT: 13.67
Area: 37094
Amount: 2.047650
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:47:23
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7573.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-May-2015 09:28:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:04 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 10:35:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.490	3.489	0.001	33	134366	250.0	250.0	
* 2 Fluorobenzene	96	6.379	6.377	0.002	95	728641	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.025	11.023	0.002	86	176856	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.114	15.112	0.002	96	300680	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.474	5.473	0.002	56	173606	5.00	5.05	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.909	5.908	0.001	96	74677	5.00	5.00	
$ 10 Toluene-d8 (Surr)	98	8.693	8.692	0.001	89	299508	5.00	5.06	
$ 11 4-Bromofluorobenzene (Surr	95	13.043	13.059	-0.016	82	162692	5.00	5.10	
27 Dichlorodifluoromethane	85	1.924	1.923	0.001	89	161778	5.00	5.84	
30 Chloromethane	50	1.994	1.992	0.002	99	98126	5.00	5.45	M
31 Butadiene	54	2.081	2.097	-0.016	81	61581	NC	NC	
32 Vinyl chloride	62	2.116	2.114	0.002	98	89754	5.00	5.16	
35 Bromomethane	94	2.342	2.340	0.002	89	95577	5.00	5.12	
36 Chloroethane	64	2.394	2.393	0.001	81	60875	5.00	5.11	
37 Dichlorofluoromethane	67	2.551	2.549	0.002	96	237948	5.00	4.98	
38 Trichlorofluoromethane	101	2.603	2.601	0.002	94	211012	5.00	5.13	
40 Ethyl ether	59	2.812	2.810	0.002	84	41975	5.00	5.33	
44 Acrolein	56	2.916	2.915	0.001	88	25315	50.0	54.2	
48 Acetone	43	3.055	3.036	0.019	11	19807	20.0	22.5	
45 1,1-Dichloroethene	96	3.038	3.036	0.002	97	97296	5.00	5.07	
46 1,1,2-Trichloro-1,2,2-trif	151	3.090	3.089	0.001	89	149448	5.00	5.17	
49 Iodomethane	142	3.194	3.193	0.001	99	252788	5.00	5.03	
50 Carbon disulfide	76	3.281	3.280	0.001	97	332090	5.00	5.08	
52 3-Chloro-1-propene	41	3.351	3.350	0.001	79	148067	5.00	5.23	
51 Methyl acetate	43	3.351	3.350	0.001	71	102167	25.0	26.0	
54 Methylene Chloride	84	3.473	3.471	0.002	88	84395	5.00	5.15	
55 2-Methyl-2-propanol	59	3.577	3.558	0.019	1	18755	50.0	40.9	
58 Acrylonitrile	53	3.682	3.680	0.002	97	66010	50.0	52.1	
57 trans-1,2-Dichloroethene	96	3.769	3.767	0.002	94	103443	5.00	4.98	
56 Methyl tert-butyl ether	73	3.786	3.785	0.001	62	151850	5.00	5.13	
59 Hexane	57	4.047	4.063	-0.016	91	147748	5.00	4.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.204	4.202	0.002	96	191302	5.00	5.20	
61 Vinyl acetate	43	4.221	4.220	0.001	52	190774	10.0	10.7	
67 2-Butanone (MEK)	43	4.882	4.881	0.001	31	45287	20.0	21.1	
65 cis-1,2-Dichloroethene	96	4.882	4.881	0.001	59	103578	5.00	5.06	
66 2,2-Dichloropropane	77	4.900	4.898	0.002	71	188189	5.00	5.51	
70 sec-Butyl Alcohol	45	5.108	5.107	0.001	51	65102	150.0	153.5	
71 Chlorobromomethane	128	5.178	5.177	0.001	93	51580	5.00	5.23	
72 Tetrahydrofuran	42	5.248	5.264	-0.016	30	13905	10.0	9.78	
74 Chloroform	83	5.265	5.264	0.001	91	185180	5.00	5.09	
75 1,1,1-Trichloroethane	97	5.543	5.542	0.001	63	181377	5.00	5.02	
76 Cyclohexane	56	5.648	5.647	0.002	82	167669	5.00	5.06	
78 1,1-Dichloropropene	75	5.735	5.751	-0.016	80	151758	5.00	5.10	
77 Carbon tetrachloride	117	5.787	5.786	0.001	80	183217	5.00	5.11	
80 Isobutyl alcohol	41	5.874	5.873	0.001	20	19117	125.0	136.5	
82 1,2-Dichloroethane	62	6.013	5.995	0.018	40	75267	5.00	5.22	
81 Benzene	78	6.013	6.012	0.001	92	289210	5.00	5.06	
84 n-Heptane	43	6.396	6.395	0.001	52	170807	5.00	5.11	
85 Trichloroethene	95	6.901	6.899	0.002	90	124898	5.00	5.01	
89 2-Pentanone	43	7.127	7.143	-0.016	88	92534	20.0	20.0	
90 1,2-Dichloropropane	63	7.197	7.195	0.002	81	102231	5.00	5.19	
87 Methylcyclohexane	55	7.214	7.213	0.001	89	138374	5.00	4.90	
92 Dibromomethane	93	7.371	7.369	0.002	84	57201	5.00	5.19	
94 Dichlorobromomethane	83	7.597	7.595	0.002	94	155573	5.00	5.00	
96 2-Chloroethyl vinyl ether	63	8.049	8.048	0.001	67	31796	5.00	5.10	
97 cis-1,3-Dichloropropene	75	8.275	8.274	0.001	84	131710	5.00	5.21	
98 4-Methyl-2-pentanone (MIBK	43	8.519	8.518	0.001	62	135962	20.0	20.9	
99 Toluene	91	8.797	8.796	0.001	95	308919	5.00	5.06	
100 trans-1,3-Dichloropropene	75	9.128	9.127	0.001	83	89947	5.00	5.15	
101 Ethyl methacrylate	69	9.319	9.318	0.001	68	73572	5.00	5.17	
102 1,1,2-Trichloroethane	97	9.406	9.405	0.001	68	57787	5.00	5.27	
104 1,3-Dichloropropane	76	9.667	9.666	0.001	76	95870	5.00	5.26	
103 Tetrachloroethene	164	9.685	9.701	-0.016	97	115570	5.00	5.18	
105 2-Hexanone	43	9.859	9.840	0.019	64	85284	20.0	20.2	
107 Chlorodibromomethane	129	10.050	10.049	0.001	83	110270	5.00	5.04	
109 Ethylene Dibromide	107	10.224	10.223	0.001	76	76908	5.00	5.32	
111 Chlorobenzene	112	11.059	11.058	0.001	79	225081	5.00	5.19	
110 1-Chlorohexane	91	11.059	11.058	0.001	64	142059	5.00	4.99	
113 1,1,1,2-Tetrachloroethane	131	11.216	11.215	0.001	68	112669	5.00	5.23	
112 Ethylbenzene	106	11.268	11.267	0.001	95	107737	5.00	5.05	
114 m-Xylene & p-Xylene	106	11.477	11.476	0.001	97	144634	5.00	5.12	
115 o-Xylene	106	12.156	12.154	0.002	87	129917	5.00	5.30	
116 Styrene	104	12.173	12.172	0.001	88	205608	5.00	5.30	
117 Bromoform	173	12.452	12.450	0.002	89	60072	5.00	5.21	
118 Isopropylbenzene	105	12.817	12.816	0.001	93	398151	5.00	5.10	
119 Cyclohexanone	55	12.939	12.937	0.002	68	36570	200.0	210.1	
121 Bromobenzene	156	13.304	13.303	0.001	87	108015	5.00	5.23	
122 1,1,2,2-Tetrachloroethane	83	13.304	13.320	-0.016	57	73781	5.00	5.19	
124 1,2,3-Trichloropropane	110	13.374	13.372	0.002	49	17413	5.00	5.33	
125 trans-1,4-Dichloro-2-buten	53	13.409	13.425	-0.016	1	13743	5.00	5.44	
123 N-Propylbenzene	120	13.548	13.546	0.002	94	107549	5.00	5.14	
126 2-Chlorotoluene	126	13.670	13.668	0.002	52	93257	5.00	5.28	a
128 4-Chlorotoluene	126	13.861	13.860	0.001	96	97639	5.00	4.87	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.878	13.877	0.001	91	306142	5.00	5.06	
129 tert-Butylbenzene	119	14.453	14.451	0.002	90	357618	5.00	5.09	
130 1,2,4-Trimethylbenzene	105	14.540	14.538	0.002	93	294769	5.00	5.04	
131 sec-Butylbenzene	134	14.853	14.851	0.002	75	98091	5.00	5.20	
132 1,3-Dichlorobenzene	146	14.992	15.008	-0.016	65	181894	5.00	5.15	
133 4-Isopropyltoluene	119	15.131	15.130	0.001	85	407342	5.00	5.11	
134 1,4-Dichlorobenzene	146	15.166	15.165	0.001	75	215153	5.00	5.08	
138 1,2-Dichlorobenzene	146	15.810	15.808	0.002	80	155661	5.00	5.04	
137 n-Butylbenzene	91	15.845	15.843	0.002	94	350270	5.00	5.11	
139 1,2-Dibromo-3-Chloropropan	157	16.923	16.940	-0.017	51	13167	5.00	5.57	
141 1,2,4-Trichlorobenzene	180	17.863	17.862	0.001	93	114634	5.00	5.33	
142 Hexachlorobutadiene	225	18.072	18.071	0.001	87	107998	5.00	5.17	
143 Naphthalene	128	18.089	18.088	0.001	95	109449	5.00	5.31	
144 1,2,3-Trichlorobenzene	180	18.350	18.349	0.001	61	86604	5.00	5.27	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		20.0	20.3	
S 150 Xylenes, Total (URS)	1				0		10.0	10.4	
S 151 Total BTEX	1				0			25.6	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.4	
S 145 1,2-Dichloroethene, Total	1				0		10.0	10.0	
S 146 Xylenes, Total	106				0		10.0	10.4	
S 147 1,2-Dichloroethene, Total	96				0		10.0	10.0	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

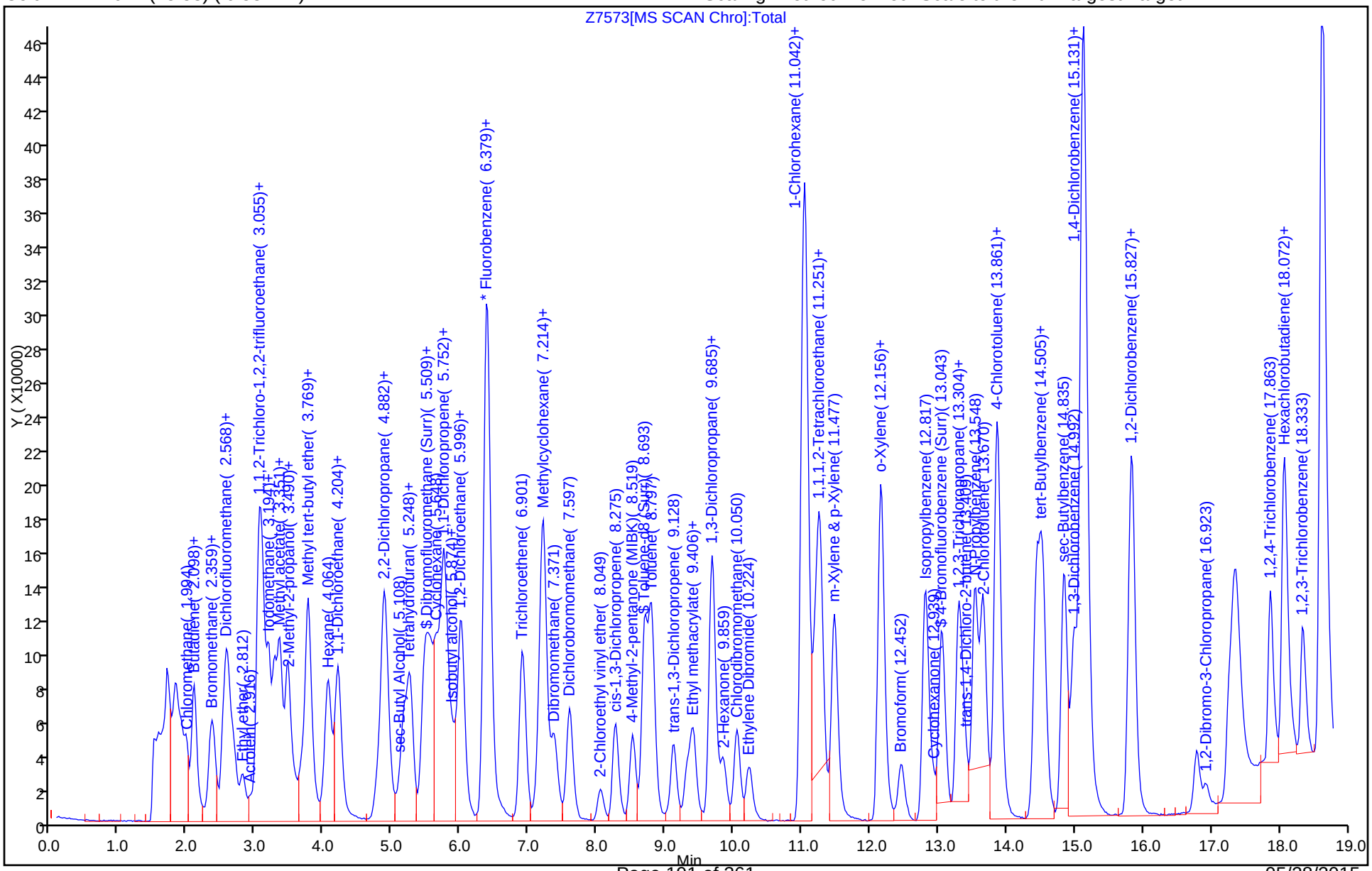
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	2.50	Units: uL
MV-Gas/Ket A_00032	Amount Added:	2.50	Units: uL
MV-2cleve+AVA_00009	Amount Added:	2.50	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.40	Units: uL

Report Date: 14-May-2015 14:33:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7573.D				
Injection Date:	14-May-2015 09:28:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

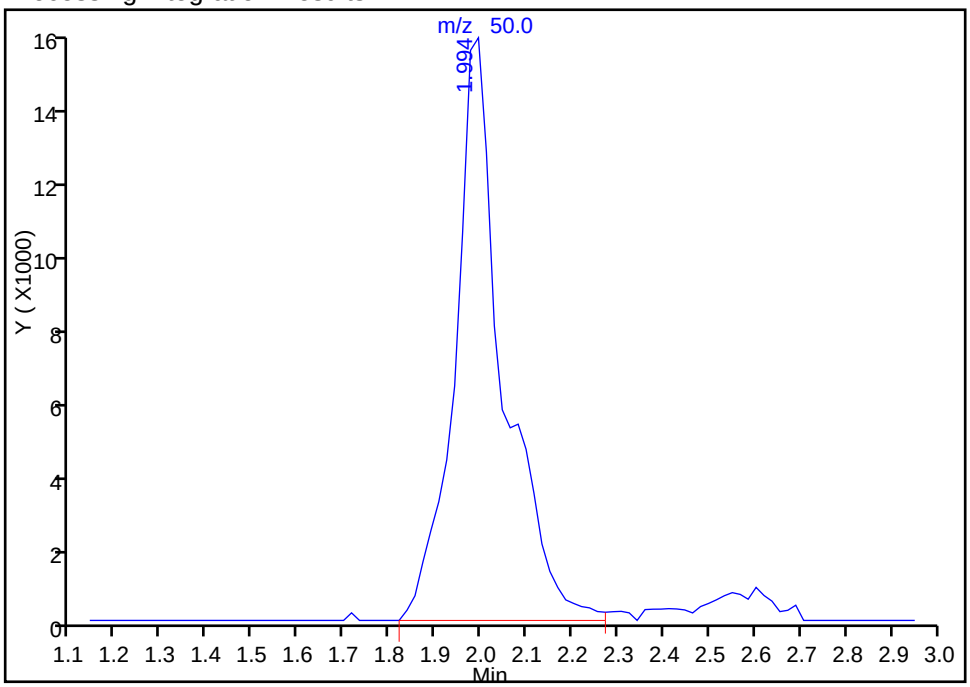
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7573.D				
Injection Date:	14-May-2015 09:28:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

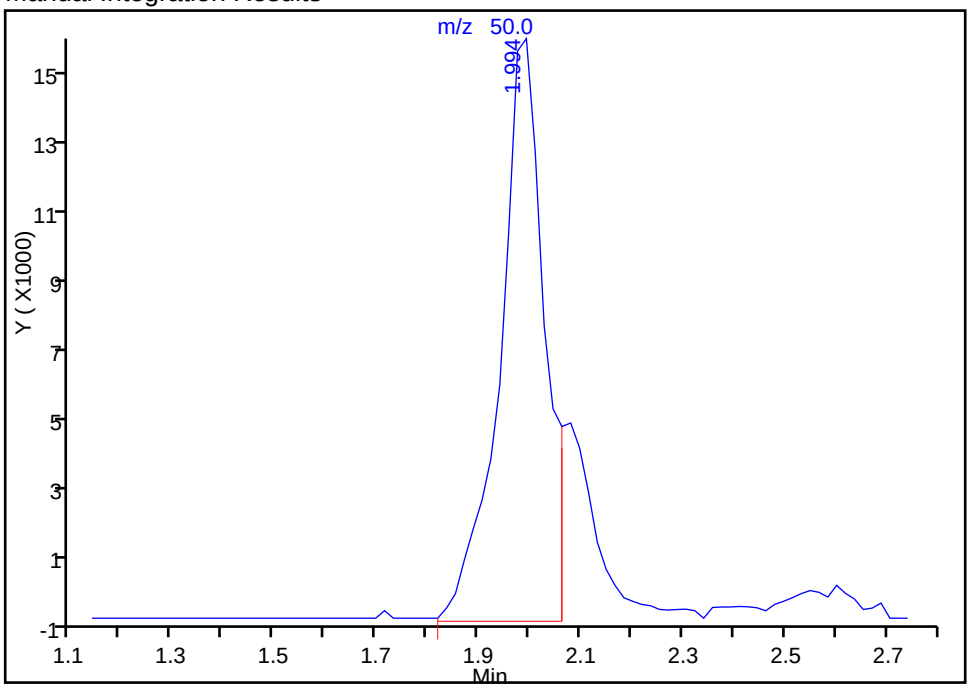
Processing Integration Results

RT: 1.99
Area: 117703
Amount: 6.301241
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 98126
Amount: 5.448692
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:49:25
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

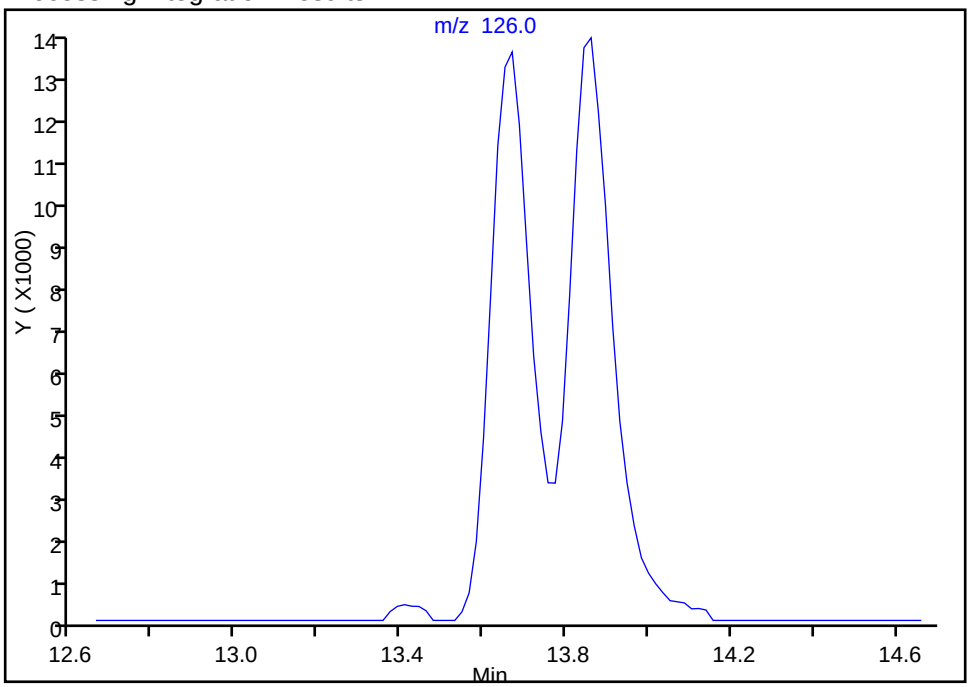
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7573.D				
Injection Date:	14-May-2015 09:28:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

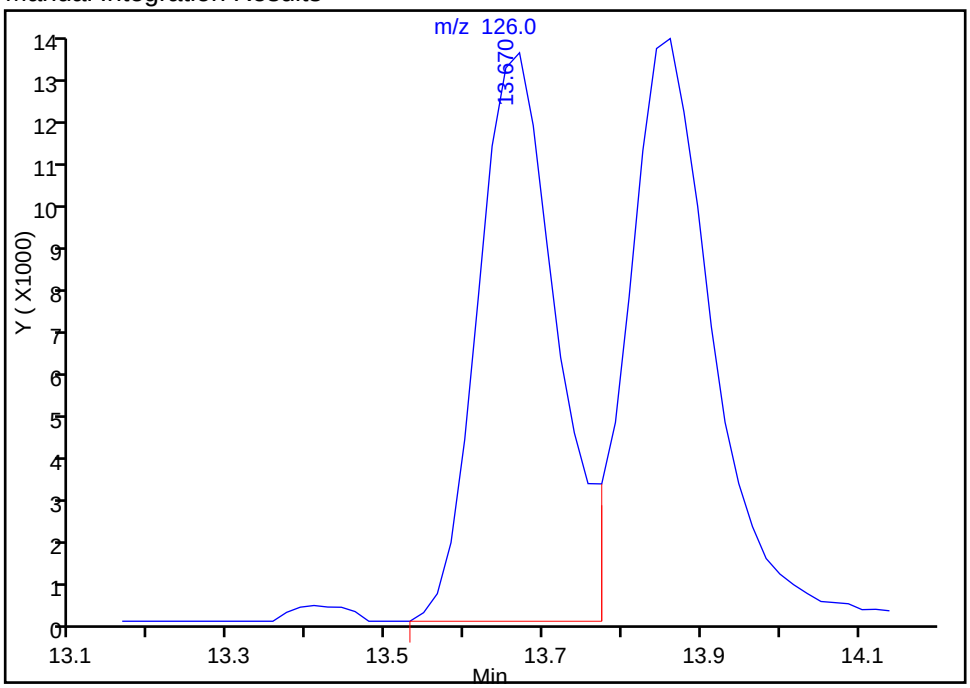
Not Detected
Expected RT: 13.67

Processing Integration Results



Manual Integration Results

RT:	13.67
Area:	93257
Amount:	5.281193
Amount Units:	ug/l



Reviewer: moanm, 14-May-2015 12:49:25
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7574.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-May-2015 09:50:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:05 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 10:40:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.489	3.489	0.000	5	120241	250.0	250.0	
* 2 Fluorobenzene	96	6.377	6.377	0.000	94	748150	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.023	11.023	0.000	86	176321	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.112	0.000	76	310809	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.473	5.473	0.000	53	337011	10.0	9.54	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.908	5.908	0.000	90	137087	10.0	8.95	
$ 10 Toluene-d8 (Surr)	98	8.692	8.692	0.000	90	595203	10.0	10.1	
$ 11 4-Bromofluorobenzene (Surr	95	13.059	13.059	0.000	84	319481	10.0	9.68	
27 Dichlorodifluoromethane	85	1.923	1.923	0.000	97	297541	10.0	10.5	
30 Chloromethane	50	1.992	1.992	0.000	99	190881	10.0	10.3	M
31 Butadiene	54	2.097	2.097	0.000	81	120312	NC	NC	
32 Vinyl chloride	62	2.114	2.114	0.000	96	180758	10.0	10.1	
35 Bromomethane	94	2.340	2.340	0.000	84	193819	10.0	10.1	
36 Chloroethane	64	2.393	2.393	0.000	92	122778	10.0	10.0	
37 Dichlorofluoromethane	67	2.549	2.549	0.000	97	471397	10.0	9.61	
38 Trichlorofluoromethane	101	2.601	2.601	0.000	98	403249	10.0	9.55	
40 Ethyl ether	59	2.810	2.810	0.000	86	84038	10.0	10.4	
44 Acrolein	56	2.915	2.915	0.000	71	42858	100.0	89.4	
48 Acetone	43	3.036	3.036	0.000	10	36147	40.0	40.0	
45 1,1-Dichloroethene	96	3.036	3.036	0.000	88	186610	10.0	9.46	
46 1,1,2-Trichloro-1,2,2-trif	151	3.089	3.089	0.000	88	296052	10.0	9.98	
49 Iodomethane	142	3.193	3.193	0.000	98	517133	10.0	10.0	
50 Carbon disulfide	76	3.280	3.280	0.000	98	669232	10.0	9.96	
52 3-Chloro-1-propene	41	3.350	3.350	0.000	82	292800	10.0	10.1	
51 Methyl acetate	43	3.350	3.350	0.000	66	196230	50.0	48.6	
54 Methylene Chloride	84	3.471	3.471	0.000	90	164177	10.0	9.75	
55 2-Methyl-2-propanol	59	3.558	3.558	0.000	1	41806	100.0	129.7	
58 Acrylonitrile	53	3.680	3.680	0.000	93	126311	100.0	97.1	
57 trans-1,2-Dichloroethene	96	3.767	3.767	0.000	92	206494	10.0	9.69	
56 Methyl tert-butyl ether	73	3.785	3.785	0.000	60	288131	10.0	9.48	
59 Hexane	57	4.063	4.063	0.000	90	281865	10.0	9.49	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.202	4.202	0.000	95	378189	10.0	10.0	
61 Vinyl acetate	43	4.220	4.220	0.000	78	332133	20.0	18.2	
67 2-Butanone (MEK)	43	4.881	4.881	0.000	29	82420	40.0	37.5	
65 cis-1,2-Dichloroethene	96	4.881	4.881	0.000	84	208123	10.0	9.91	
66 2,2-Dichloropropane	77	4.898	4.898	0.000	74	351619	10.0	10.7	
70 sec-Butyl Alcohol	45	5.107	5.107	0.000	53	116342	300.0	306.6	
71 Chlorobromomethane	128	5.177	5.177	0.000	72	103892	10.0	10.3	
72 Tetrahydrofuran	42	5.264	5.264	0.000	31	26224	20.0	18.0	
74 Chloroform	83	5.264	5.264	0.000	91	370987	10.0	9.93	
75 1,1,1-Trichloroethane	97	5.542	5.542	0.000	90	359060	10.0	9.68	
76 Cyclohexane	56	5.647	5.647	0.000	82	321904	10.0	9.45	
78 1,1-Dichloropropene	75	5.751	5.751	0.000	82	297723	10.0	9.74	
77 Carbon tetrachloride	117	5.786	5.786	0.000	79	357743	10.0	9.72	
80 Isobutyl alcohol	41	5.873	5.873	0.000	18	32142	250.0	256.4	
82 1,2-Dichloroethane	62	5.995	5.995	0.000	45	148223	10.0	10.0	
81 Benzene	78	6.012	6.012	0.000	92	576941	10.0	9.83	
84 n-Heptane	43	6.395	6.395	0.000	66	333678	10.0	9.72	
85 Trichloroethene	95	6.899	6.899	0.000	85	251576	10.0	9.83	
89 2-Pentanone	43	7.143	7.143	0.000	87	176774	40.0	37.3	
90 1,2-Dichloropropane	63	7.195	7.195	0.000	81	205319	10.0	10.1	
87 Methylcyclohexane	55	7.213	7.213	0.000	88	273737	10.0	9.44	
92 Dibromomethane	93	7.369	7.369	0.000	84	111513	10.0	9.86	
94 Dichlorobromomethane	83	7.595	7.595	0.000	95	325173	10.0	10.2	
96 2-Chloroethyl vinyl ether	63	8.048	8.048	0.000	82	66069	10.0	10.3	
97 cis-1,3-Dichloropropene	75	8.274	8.274	0.000	80	265882	10.0	10.6	
98 4-Methyl-2-pentanone (MIBK	43	8.518	8.518	0.000	62	258950	40.0	38.8	
99 Toluene	91	8.796	8.796	0.000	95	627507	10.0	10.0	
100 trans-1,3-Dichloropropene	75	9.127	9.127	0.000	87	180932	10.0	10.1	
101 Ethyl methacrylate	69	9.318	9.318	0.000	70	140784	10.0	9.92	
102 1,1,2-Trichloroethane	97	9.405	9.405	0.000	76	112136	10.0	9.96	
104 1,3-Dichloropropane	76	9.666	9.666	0.000	75	190040	10.0	10.5	
103 Tetrachloroethene	164	9.701	9.701	0.000	96	237372	10.0	10.7	
105 2-Hexanone	43	9.840	9.840	0.000	67	160598	40.0	38.1	
107 Chlorodibromomethane	129	10.049	10.049	0.000	88	232979	10.0	10.7	
109 Ethylene Dibromide	107	10.223	10.223	0.000	78	151556	10.0	10.5	
111 Chlorobenzene	112	11.058	11.058	0.000	90	461840	10.0	10.7	
110 1-Chlorohexane	91	11.058	11.058	0.000	75	281001	10.0	9.90	
113 1,1,1,2-Tetrachloroethane	131	11.215	11.215	0.000	72	231738	10.0	10.8	
112 Ethylbenzene	106	11.267	11.267	0.000	96	224900	10.0	10.6	
114 m-Xylene & p-Xylene	106	11.476	11.476	0.000	98	291369	10.0	10.3	
115 o-Xylene	106	12.154	12.154	0.000	87	259365	10.0	10.6	
116 Styrene	104	12.172	12.172	0.000	88	418378	10.0	10.8	
117 Bromoform	173	12.450	12.450	0.000	88	122259	10.0	10.6	
118 Isopropylbenzene	105	12.816	12.816	0.000	94	801280	10.0	9.94	
119 Cyclohexanone	55	12.937	12.937	0.000	59	68866	400.0	404.2	
121 Bromobenzene	156	13.303	13.303	0.000	92	220808	10.0	10.3	
122 1,1,2,2-Tetrachloroethane	83	13.320	13.320	0.000	51	140712	10.0	9.57	
124 1,2,3-Trichloropropane	110	13.372	13.372	0.000	57	34376	10.0	10.2	
125 trans-1,4-Dichloro-2-buten	53	13.425	13.425	0.000	1	28676	10.0	11.0	
123 N-Propylbenzene	120	13.546	13.546	0.000	89	219095	10.0	10.1	
126 2-Chlorotoluene	126	13.668	13.668	0.000	65	189875	10.0	10.4	a
128 4-Chlorotoluene	126	13.860	13.860	0.000	93	213358	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
127 1,3,5-Trimethylbenzene	105	13.877	13.877	0.000	91	617458	10.0	9.88	
129 tert-Butylbenzene	119	14.451	14.451	0.000	89	724376	10.0	9.97	
130 1,2,4-Trimethylbenzene	105	14.538	14.538	0.000	94	606325	10.0	10.0	
131 sec-Butylbenzene	134	14.851	14.851	0.000	75	198353	10.0	10.2	
132 1,3-Dichlorobenzene	146	15.008	15.008	0.000	71	369530	10.0	10.1	
133 4-Isopropyltoluene	119	15.130	15.130	0.000	90	821824	10.0	9.97	
134 1,4-Dichlorobenzene	146	15.165	15.165	0.000	78	444050	10.0	10.1	
138 1,2-Dichlorobenzene	146	15.808	15.808	0.000	85	321636	10.0	10.1	
137 n-Butylbenzene	91	15.843	15.843	0.000	94	691937	10.0	9.77	
139 1,2-Dibromo-3-Chloropropan	157	16.940	16.940	0.000	66	24385	10.0	9.99	
141 1,2,4-Trichlorobenzene	180	17.862	17.862	0.000	94	223302	10.0	10.0	
142 Hexachlorobutadiene	225	18.071	18.071	0.000	87	205417	10.0	9.52	
143 Naphthalene	128	18.088	18.088	0.000	87	208430	10.0	9.78	
144 1,2,3-Trichlorobenzene	180	18.349	18.349	0.000	92	168572	10.0	9.93	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		40.0	41.4	
S 150 Xylenes, Total (URS)	1				0		20.0	21.0	
S 148 1,3-Dichloropropene, Total	1				0		20.0	20.7	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.6	
S 146 Xylenes, Total	106				0		20.0	21.0	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.6	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

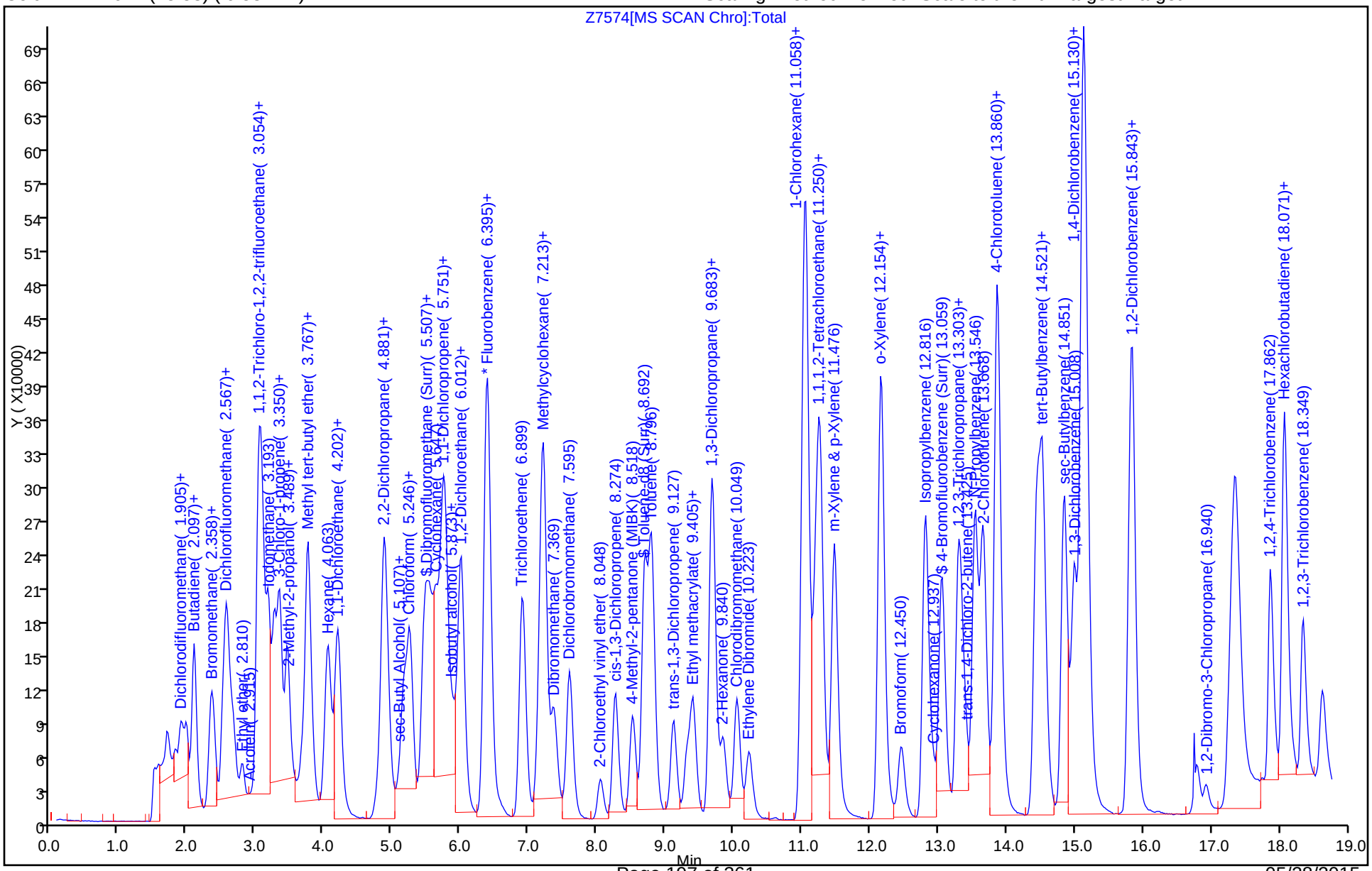
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00032	Amount Added:	5.00	Units: uL
MV-2cleve+AVA_00009	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 14-May-2015 14:33:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7574.D				
Injection Date:	14-May-2015 09:50:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

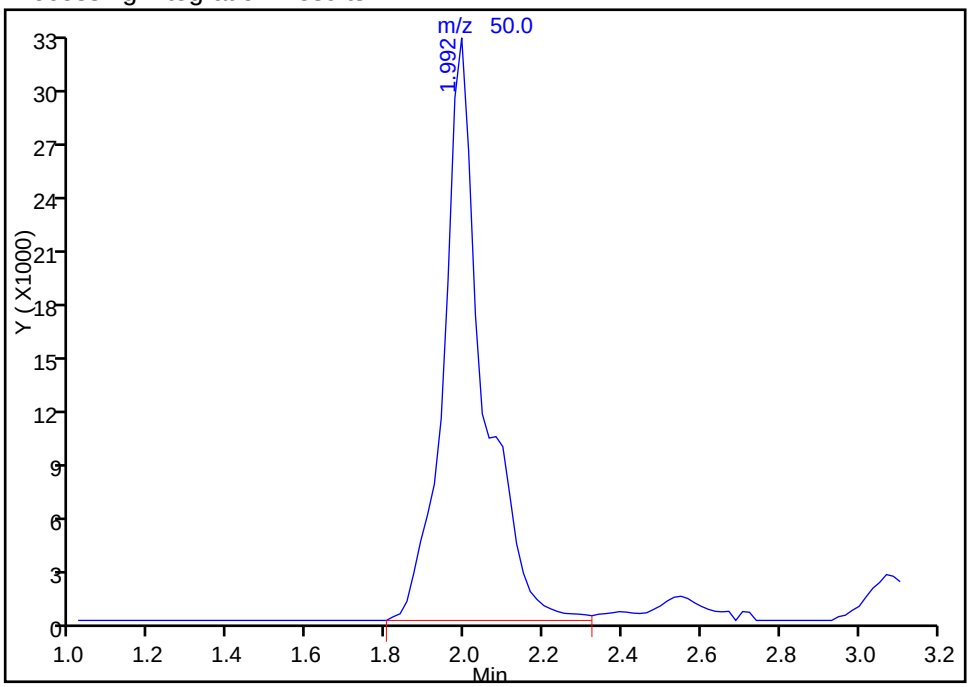
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7574.D				
Injection Date:	14-May-2015 09:50:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

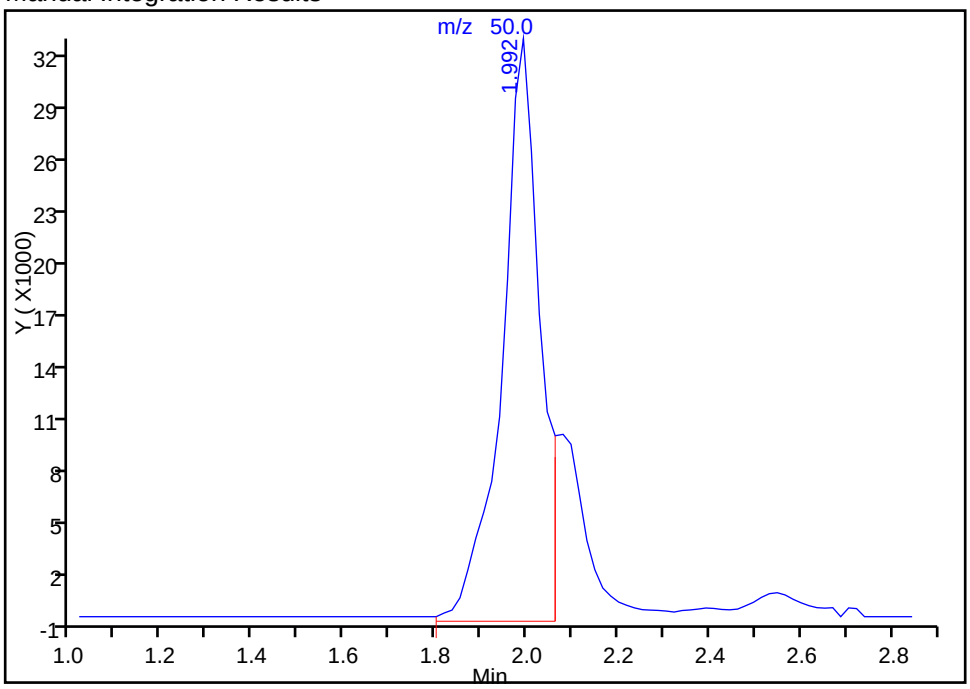
Processing Integration Results

RT: 1.99
Area: 228684
Amount: 11.983721
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 190881
Amount: 10.322759
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:50:53
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

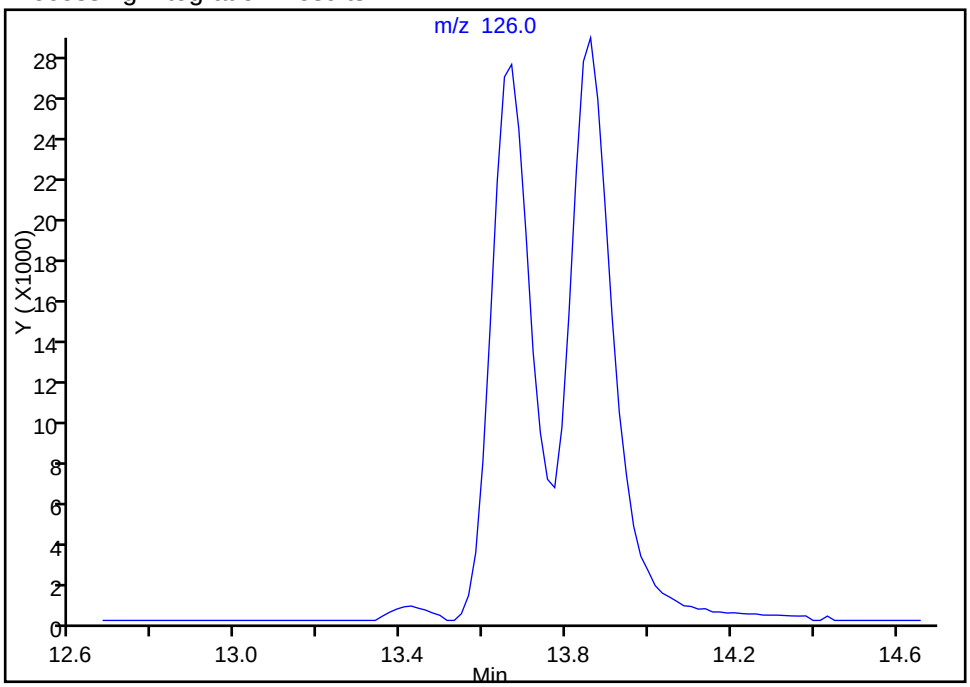
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7574.D				
Injection Date:	14-May-2015 09:50:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

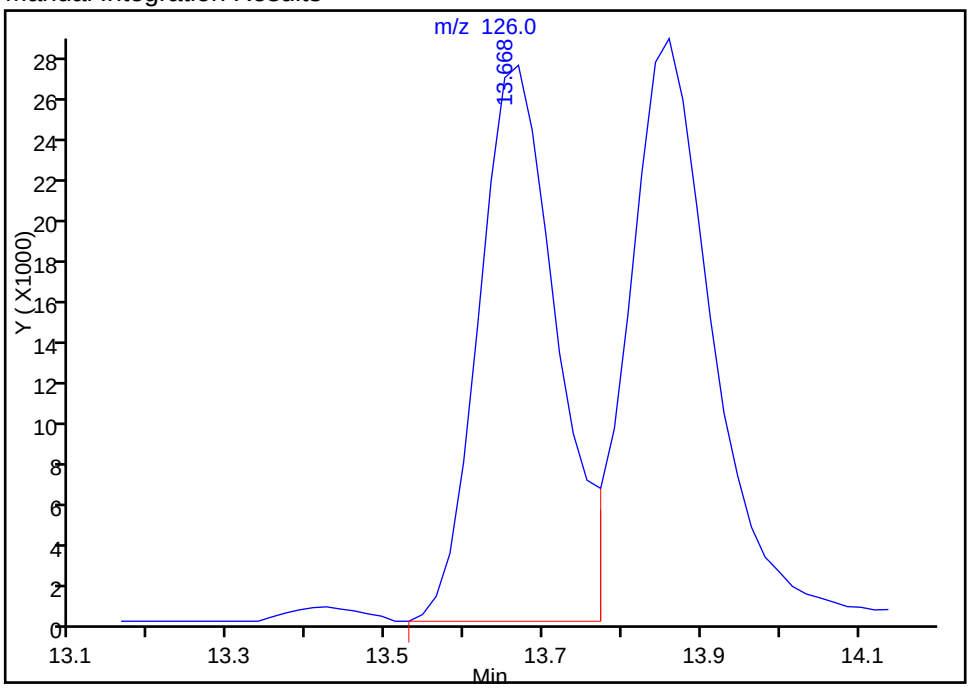
Not Detected
Expected RT: 13.67

Processing Integration Results



Manual Integration Results

RT: 13.67
Area: 189875
Amount: 10.402300
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:50:53
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7575.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-May-2015 10:13:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:06 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 11:19:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.489	0.002	1	120069	250.0	250.0	
* 2 Fluorobenzene	96	6.379	6.377	0.002	80	732324	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.008	11.023	-0.015	82	177468	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.114	15.112	0.002	57	290371	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.457	5.473	-0.015	55	647480	20.0	18.7	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.892	5.908	-0.016	91	280255	20.0	18.7	
$ 10 Toluene-d8 (Surr)	98	8.694	8.692	0.002	90	1128395	20.0	19.0	
$ 11 4-Bromofluorobenzene (Surr	95	13.044	13.059	-0.015	81	567072	20.0	18.4	
27 Dichlorodifluoromethane	85	1.907	1.923	-0.016	98	890676	30.0	32.0	
30 Chloromethane	50	1.994	1.992	0.002	99	541882	30.0	29.9	M
31 Butadiene	54	2.081	2.097	-0.016	91	358592	NC	NC	
32 Vinyl chloride	62	2.099	2.114	-0.015	97	522229	30.0	29.9	
35 Bromomethane	94	2.342	2.340	0.002	88	544022	30.0	29.0	
36 Chloroethane	64	2.377	2.393	-0.016	97	340212	30.0	28.4	
37 Dichlorofluoromethane	67	2.534	2.549	-0.015	92	1340833	30.0	27.9	
38 Trichlorofluoromethane	101	2.586	2.601	-0.015	99	1151415	30.0	27.8	
40 Ethyl ether	59	2.795	2.810	-0.015	86	235569	30.0	29.8	
44 Acrolein	56	2.899	2.915	-0.016	78	129425	300.0	275.8	
48 Acetone	43	3.038	3.036	0.002	11	102876	120.0	116.4	
45 1,1-Dichloroethene	96	3.021	3.036	-0.015	92	540922	30.0	28.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.073	3.089	-0.016	96	849656	30.0	29.3	
49 Iodomethane	142	3.178	3.193	-0.015	98	1496329	30.0	29.6	
50 Carbon disulfide	76	3.265	3.280	-0.015	98	1944444	30.0	29.6	
52 3-Chloro-1-propene	41	3.334	3.350	-0.016	78	833192	30.0	29.3	
51 Methyl acetate	43	3.334	3.350	-0.016	68	569432	150.0	143.9	
54 Methylene Chloride	84	3.456	3.471	-0.015	90	456278	30.0	27.7	
55 2-Methyl-2-propanol	59	3.560	3.558	0.002	6	89496	300.0	299.5	
58 Acrylonitrile	53	3.682	3.680	0.002	93	365573	300.0	287.1	
57 trans-1,2-Dichloroethene	96	3.752	3.767	-0.015	77	575682	30.0	27.6	
56 Methyl tert-butyl ether	73	3.769	3.785	-0.016	81	816390	30.0	27.5	
59 Hexane	57	4.048	4.063	-0.015	92	810362	30.0	27.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.187	4.202	-0.015	96	1064910	30.0	28.8	
61 Vinyl acetate	43	4.222	4.220	0.002	88	1040408	60.0	58.2	
67 2-Butanone (MEK)	43	4.865	4.881	-0.016	39	235659	120.0	109.5	
65 cis-1,2-Dichloroethene	96	4.865	4.881	-0.016	83	580355	30.0	28.2	
66 2,2-Dichloropropane	77	4.900	4.898	0.002	55	930970	30.0	30.3	
70 sec-Butyl Alcohol	45	5.109	5.107	0.002	43	349073	900.0	921.4	
71 Chlorobromomethane	128	5.161	5.177	-0.016	90	302441	30.0	30.5	
72 Tetrahydrofuran	42	5.266	5.264	0.002	31	75392	60.0	52.7	
74 Chloroform	83	5.248	5.264	-0.016	87	1057680	30.0	28.9	
75 1,1,1-Trichloroethane	97	5.544	5.542	0.002	86	1019505	30.0	28.1	
76 Cyclohexane	56	5.648	5.647	0.002	89	926425	30.0	27.8	
78 1,1-Dichloropropene	75	5.735	5.751	-0.016	83	852975	30.0	28.5	
77 Carbon tetrachloride	117	5.770	5.786	-0.016	79	1051212	30.0	29.2	
80 Isobutyl alcohol	41	5.857	5.873	-0.016	37	97857	750.0	781.8	
82 1,2-Dichloroethane	62	5.996	5.995	0.001	44	423318	30.0	29.2	
81 Benzene	78	6.014	6.012	0.002	92	1659761	30.0	28.9	
84 n-Heptane	43	6.397	6.395	0.002	89	957039	30.0	28.5	
85 Trichloroethene	95	6.901	6.899	0.002	85	705908	30.0	28.2	
89 2-Pentanone	43	7.127	7.143	-0.016	92	524737	120.0	113.0	
90 1,2-Dichloropropane	63	7.197	7.195	0.002	80	590069	30.0	29.8	
87 Methylcyclohexane	55	7.214	7.213	0.001	90	787171	30.0	27.7	
92 Dibromomethane	93	7.371	7.369	0.002	84	323359	30.0	29.2	
94 Dichlorobromomethane	83	7.597	7.595	0.002	96	928115	30.0	29.7	
96 2-Chloroethyl vinyl ether	63	8.050	8.048	0.002	57	184483	30.0	29.4	
97 cis-1,3-Dichloropropene	75	8.259	8.274	-0.015	82	753925	30.0	29.7	
98 4-Methyl-2-pentanone (MIBK	43	8.520	8.518	0.002	62	746019	120.0	114.3	
99 Toluene	91	8.798	8.796	0.002	95	1763105	30.0	28.7	
100 trans-1,3-Dichloropropene	75	9.111	9.127	-0.016	91	510270	30.0	29.1	
101 Ethyl methacrylate	69	9.320	9.318	0.002	55	401380	30.0	28.1	
102 1,1,2-Trichloroethane	97	9.407	9.405	0.002	60	323489	30.0	29.4	
104 1,3-Dichloropropane	76	9.668	9.666	0.002	78	555578	30.0	30.4	
103 Tetrachloroethene	164	9.685	9.701	-0.016	97	668423	30.0	29.8	
105 2-Hexanone	43	9.842	9.840	0.002	68	482826	120.0	113.9	
107 Chlorodibromomethane	129	10.051	10.049	0.002	89	683003	30.0	31.1	
109 Ethylene Dibromide	107	10.225	10.223	0.002	76	445382	30.0	30.7	
111 Chlorobenzene	112	11.060	11.058	0.002	91	1308263	30.0	30.1	
110 1-Chlorohexane	91	11.060	11.058	0.002	74	785415	30.0	27.5	
113 1,1,1,2-Tetrachloroethane	131	11.217	11.215	0.002	84	668217	30.0	30.9	
112 Ethylbenzene	106	11.269	11.267	0.002	79	611541	30.0	28.6	
114 m-Xylene & p-Xylene	106	11.478	11.476	0.002	97	842517	30.0	29.7	
115 o-Xylene	106	12.156	12.154	0.002	88	719628	30.0	29.3	
116 Styrene	104	12.174	12.172	0.002	88	1173599	30.0	30.1	
117 Bromoform	173	12.452	12.450	0.002	96	357480	30.0	30.9	
118 Isopropylbenzene	105	12.818	12.816	0.002	95	2132432	30.0	28.3	
119 Cyclohexanone	55	12.939	12.937	0.002	74	190128	1200.0	1123.2	
121 Bromobenzene	156	13.305	13.303	0.002	91	606678	30.0	30.4	
122 1,1,2,2-Tetrachloroethane	83	13.305	13.320	-0.015	66	396358	30.0	28.9	
124 1,2,3-Trichloropropane	110	13.374	13.372	0.002	73	95965	30.0	30.4	
125 trans-1,4-Dichloro-2-buten	53	13.409	13.425	-0.016	13	76984	30.0	31.6	
123 N-Propylbenzene	120	13.548	13.546	0.002	87	570298	30.0	28.2	
126 2-Chlorotoluene	126	13.670	13.668	0.002	90	482729	30.0	28.3	a
128 4-Chlorotoluene	126	13.862	13.860	0.002	92	579357	30.0	29.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.879	13.877	0.002	90	1633843	30.0	28.0	
129 tert-Butylbenzene	119	14.453	14.451	0.002	90	1886898	30.0	27.8	
130 1,2,4-Trimethylbenzene	105	14.540	14.538	0.002	94	1574288	30.0	27.9	
131 sec-Butylbenzene	134	14.853	14.851	0.002	79	511917	30.0	28.1	
132 1,3-Dichlorobenzene	146	14.993	15.008	-0.015	78	995742	30.0	29.2	
133 4-Isopropyltoluene	119	15.132	15.130	0.002	94	2113180	30.0	27.5	
134 1,4-Dichlorobenzene	146	15.149	15.165	-0.016	74	1184410	30.0	29.0	
138 1,2-Dichlorobenzene	146	15.810	15.808	0.002	84	889863	30.0	29.9	
137 n-Butylbenzene	91	15.845	15.843	0.002	94	1782761	30.0	26.9	
139 1,2-Dibromo-3-Chloropropan	157	16.924	16.940	-0.016	82	73310	30.0	32.1	
141 1,2,4-Trichlorobenzene	180	17.864	17.862	0.002	94	601532	30.0	29.0	
142 Hexachlorobutadiene	225	18.073	18.071	0.001	95	555161	30.0	27.5	
143 Naphthalene	128	18.090	18.088	0.002	95	585486	30.0	29.4	
144 1,2,3-Trichlorobenzene	180	18.351	18.349	0.002	96	451729	30.0	28.5	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		120.0	120.6	
S 150 Xylenes, Total (URS)	1				0		60.0	59.0	
S 151 Total BTEX	1				0			145.2	
S 148 1,3-Dichloropropene, Total	1				0		60.0	58.8	
S 145 1,2-Dichloroethene, Total	1				0		60.0	55.8	
S 146 Xylenes, Total	106				0		60.0	59.0	
S 147 1,2-Dichloroethene, Total	96				0		60.0	55.8	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

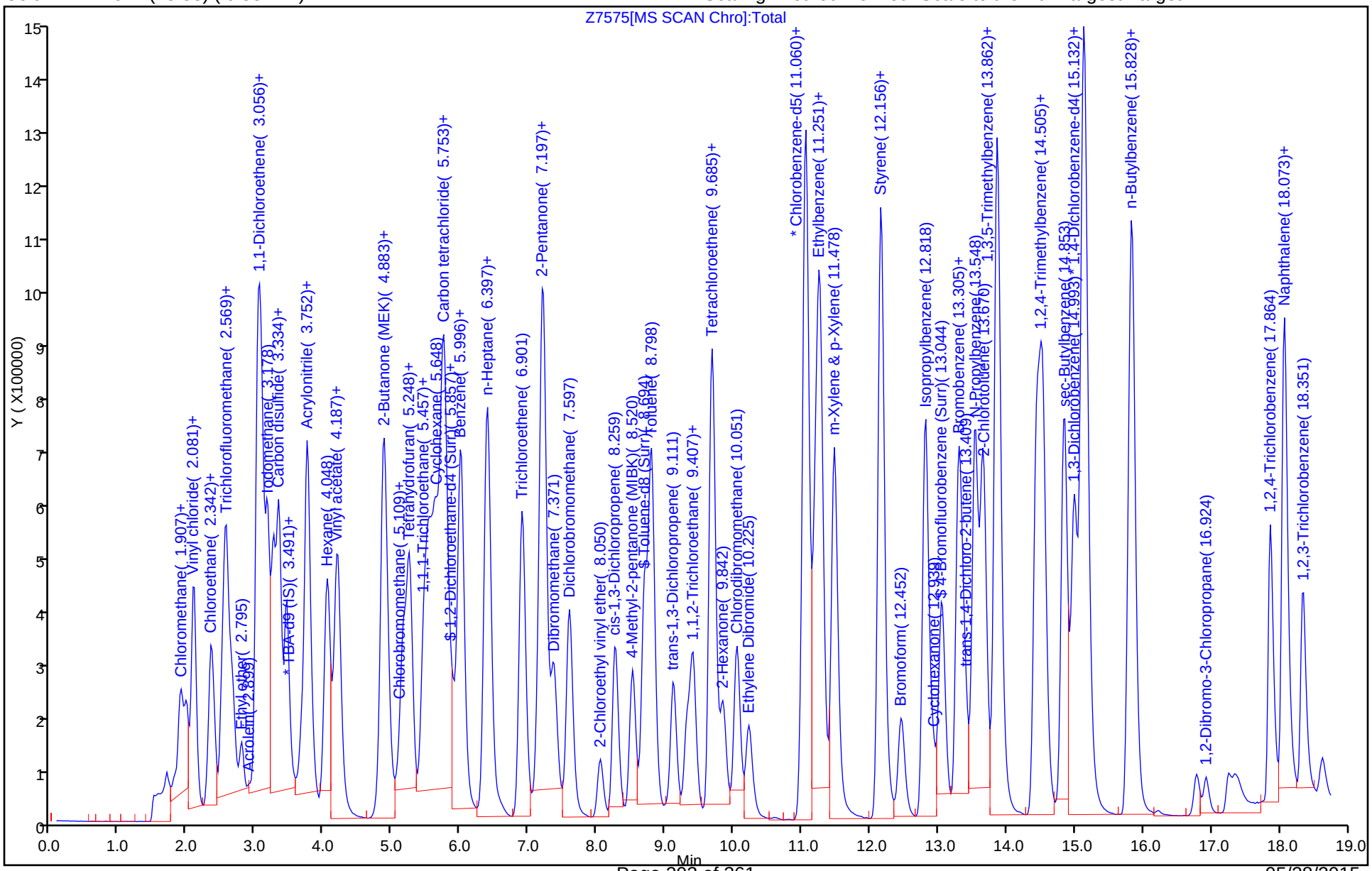
MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 15.00	Units: uL
MV-Gas/Ket A_00032	Amount Added: 15.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 15.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 1.60	Units: uL

Report Date: 14-May-2015 14:33:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7575.D				
Injection Date:	14-May-2015 10:13:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	14
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

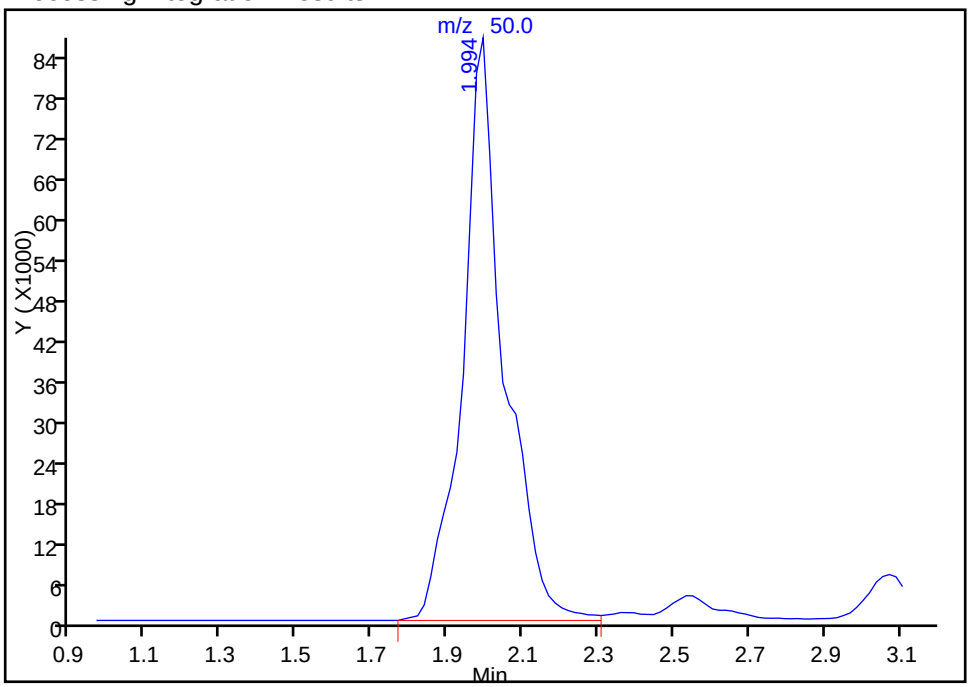
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7575.D				
Injection Date:	14-May-2015 10:13:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

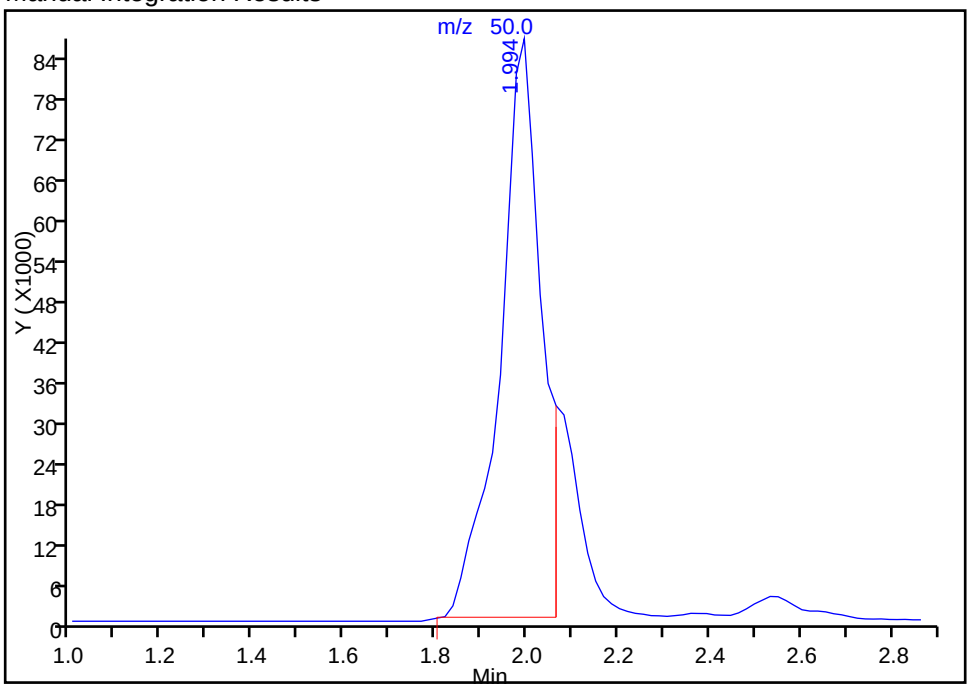
Processing Integration Results

RT: 1.99
Area: 657999
Amount: 35.347425
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 541882
Amount: 29.938031
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:52:21
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

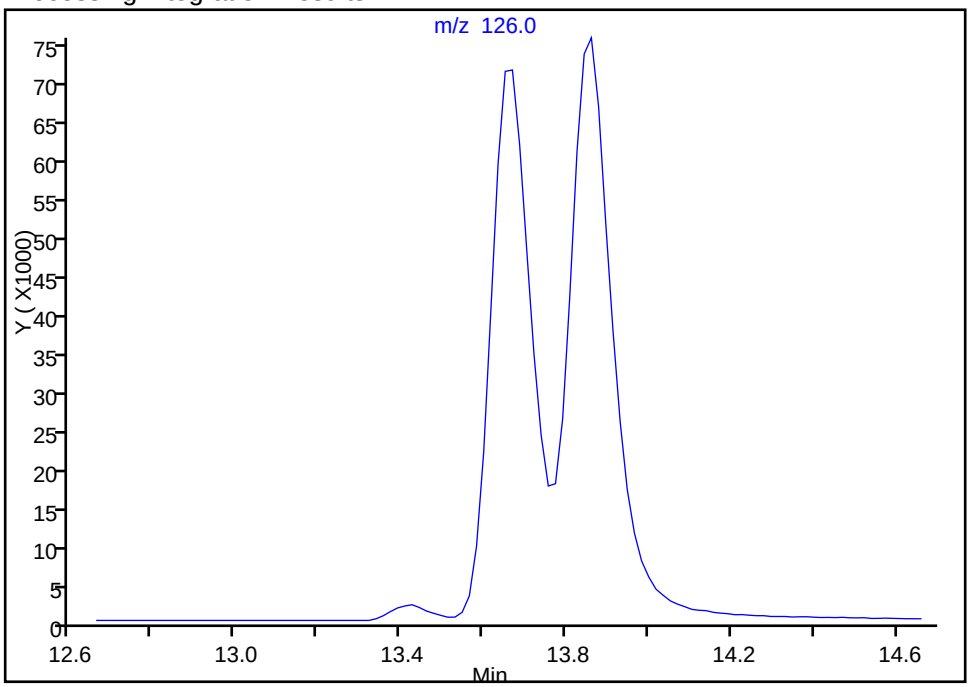
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7575.D				
Injection Date:	14-May-2015 10:13:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

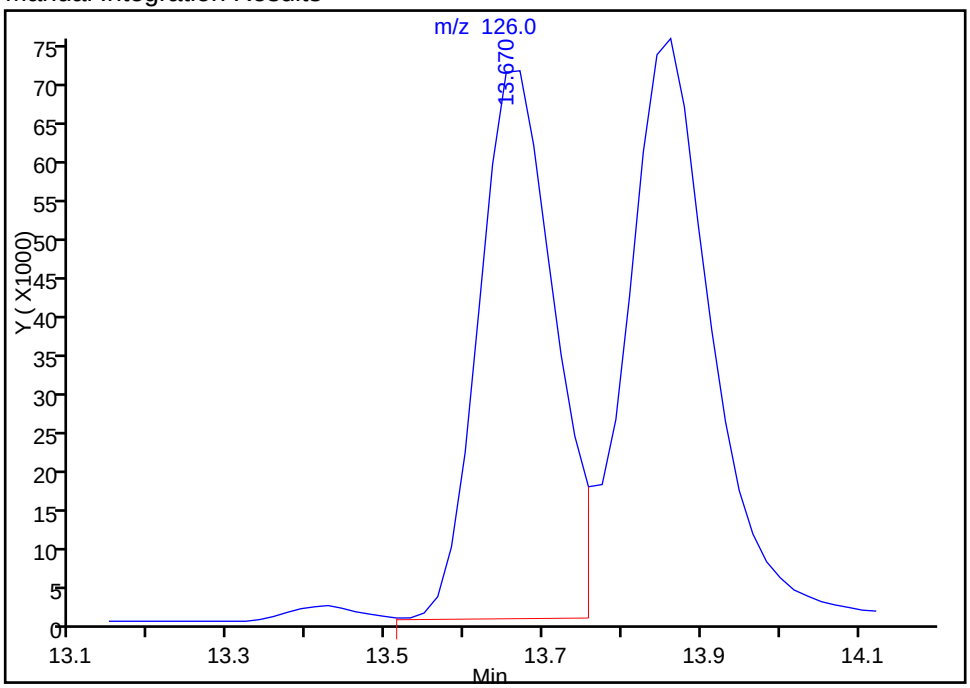
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.67
Area: 482729
Amount: 28.307749
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 14-May-2015 12:52:21
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-May-2015 10:35:30 ALS Bottle#: 8 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:07 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 11:00:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.485	3.489	-0.004	1	131290	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.377	-0.003	59	715478	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.023	-0.003	62	175572	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.126	15.112	0.014	52	294548	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.469	5.473	-0.003	55	953464	30.0	28.2	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.908	-0.004	86	432312	30.0	29.5	
$ 10 Toluene-d8 (Surr)	98	8.706	8.692	0.014	87	1611831	30.0	27.4	
$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.059	-0.003	73	827270	30.0	26.5	
27 Dichlorodifluoromethane	85	1.902	1.923	-0.021	92	1847006	60.0	67.9	
30 Chloromethane	50	1.989	1.992	-0.003	99	1155711	60.0	65.4	M
31 Butadiene	54	2.076	2.097	-0.021	93	752708	NC	NC	
32 Vinyl chloride	62	2.111	2.114	-0.003	97	1084568	60.0	63.6	
35 Bromomethane	94	2.337	2.340	-0.003	90	1099923	60.0	60.0	
36 Chloroethane	64	2.389	2.393	-0.004	96	687122	60.0	58.8	
37 Dichlorofluoromethane	67	2.546	2.549	-0.003	96	2693540	60.0	57.4	
38 Trichlorofluoromethane	101	2.580	2.601	-0.021	98	2355922	60.0	58.3	
40 Ethyl ether	59	2.789	2.810	-0.021	87	464773	60.0	60.1	
44 Acrolein	56	2.894	2.915	-0.021	61	263232	599.9	574.2	
48 Acetone	43	3.050	3.036	0.014	11	221062	240.0	256.1	
45 1,1-Dichloroethene	96	3.016	3.036	-0.020	92	1082932	60.0	57.4	
46 1,1,2-Trichloro-1,2,2-trif	151	3.085	3.089	-0.004	88	1731781	60.0	61.0	
49 Iodomethane	142	3.172	3.193	-0.021	98	3024646	60.0	61.3	
50 Carbon disulfide	76	3.259	3.280	-0.021	98	3904398	60.0	60.8	
52 3-Chloro-1-propene	41	3.329	3.350	-0.021	77	1638267	60.0	59.0	
51 Methyl acetate	43	3.346	3.350	-0.004	74	1166999	300.0	302.0	
54 Methylene Chloride	84	3.451	3.471	-0.020	90	894658	60.0	55.6	
55 2-Methyl-2-propanol	59	3.590	3.558	0.032	7	189201	600.0	596.6	M
58 Acrylonitrile	53	3.677	3.680	-0.003	91	721582	600.0	580.1	
57 trans-1,2-Dichloroethene	96	3.746	3.767	-0.021	79	1115432	60.0	54.7	
56 Methyl tert-butyl ether	73	3.764	3.785	-0.021	82	1577984	60.0	54.3	
59 Hexane	57	4.042	4.063	-0.021	91	1558387	60.0	52.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.181	4.202	-0.021	96	2020412	60.0	55.9	
61 Vinyl acetate	43	4.216	4.220	-0.004	88	2018425	120.0	115.6	
67 2-Butanone (MEK)	43	4.877	4.881	-0.004	40	466192	240.0	221.7	
65 cis-1,2-Dichloroethene	96	4.860	4.881	-0.021	83	1119973	60.0	55.7	
66 2,2-Dichloropropane	77	4.895	4.898	-0.003	52	1738421	60.0	58.6	
70 sec-Butyl Alcohol	45	5.104	5.107	-0.003	49	728725	1800.0	1759.0	
71 Chlorobromomethane	128	5.156	5.177	-0.021	90	596946	60.0	61.7	
72 Tetrahydrofuran	42	5.260	5.264	-0.004	31	154878	120.0	110.9	
74 Chloroform	83	5.260	5.264	-0.004	91	2034517	60.0	56.9	
75 1,1,1-Trichloroethane	97	5.539	5.542	-0.003	93	2044728	60.0	57.6	
76 Cyclohexane	56	5.643	5.647	-0.003	89	1851103	60.0	56.8	
78 1,1-Dichloropropene	75	5.747	5.751	-0.004	84	1738117	60.0	59.4	
77 Carbon tetrachloride	117	5.782	5.786	-0.004	80	2135062	60.0	60.7	
80 Isobutyl alcohol	41	5.869	5.873	-0.004	43	216857	1500.0	1584.5	
82 1,2-Dichloroethane	62	5.991	5.995	-0.004	45	840077	60.0	59.4	
81 Benzene	78	6.008	6.012	-0.004	92	3295430	60.0	58.7	
84 n-Heptane	43	6.391	6.395	-0.004	90	1819880	60.0	55.4	
85 Trichloroethene	95	6.896	6.899	-0.003	84	1348734	60.0	55.1	
89 2-Pentanone	43	7.139	7.143	-0.004	86	1063528	240.0	234.4	
90 1,2-Dichloropropane	63	7.192	7.195	-0.003	81	1119022	60.0	57.8	
87 Methylcyclohexane	55	7.209	7.213	-0.004	89	1522306	60.0	54.9	
92 Dibromomethane	93	7.366	7.369	-0.003	83	628511	60.0	58.1	
94 Dichlorobromomethane	83	7.592	7.595	-0.003	96	1785739	60.0	58.4	
96 2-Chloroethyl vinyl ether	63	8.044	8.048	-0.004	76	358143	60.0	58.5	
97 cis-1,3-Dichloropropene	75	8.271	8.274	-0.004	85	1454781	60.0	58.0	
98 4-Methyl-2-pentanone (MIBK	43	8.514	8.518	-0.004	63	1473574	240.0	231.2	
99 Toluene	91	8.793	8.796	-0.003	96	3365323	60.0	56.2	
100 trans-1,3-Dichloropropene	75	9.123	9.127	-0.004	91	981386	60.0	57.3	
101 Ethyl methacrylate	69	9.315	9.318	-0.003	57	778778	60.0	55.1	
102 1,1,2-Trichloroethane	97	9.402	9.405	-0.003	65	622005	60.0	57.8	
104 1,3-Dichloropropane	76	9.680	9.666	0.014	72	1075440	60.0	59.4	
103 Tetrachloroethene	164	9.697	9.701	-0.004	97	1303187	60.0	58.8	
105 2-Hexanone	43	9.854	9.840	0.014	68	948098	240.0	226.1	
107 Chlorodibromomethane	129	10.045	10.049	-0.004	88	1366054	60.0	62.9	
109 Ethylene Dibromide	107	10.219	10.223	-0.004	68	874401	60.0	60.9	
111 Chlorobenzene	112	11.055	11.058	-0.003	91	2478055	60.0	57.6	
110 1-Chlorohexane	91	11.072	11.058	0.014	75	1477919	60.0	52.3	
113 1,1,1,2-Tetrachloroethane	131	11.211	11.215	-0.004	90	1292047	60.0	60.4	
112 Ethylbenzene	106	11.281	11.267	0.014	78	1175882	60.0	55.5	
114 m-Xylene & p-Xylene	106	11.472	11.476	-0.004	98	1552082	60.0	55.4	
115 o-Xylene	106	12.151	12.154	-0.003	88	1351146	60.0	55.5	
116 Styrene	104	12.168	12.172	-0.004	88	2225830	60.0	57.8	
117 Bromoform	173	12.464	12.450	0.014	96	744798	60.0	65.1	
118 Isopropylbenzene	105	12.812	12.816	-0.004	89	4111449	60.0	53.8	
119 Cyclohexanone	55	12.934	12.937	-0.003	68	405168	2400.0	2429.0	
121 Bromobenzene	156	13.299	13.303	-0.004	93	1195996	60.0	59.1	
122 1,1,2,2-Tetrachloroethane	83	13.317	13.320	-0.003	57	781606	60.0	56.1	
124 1,2,3-Trichloropropane	110	13.369	13.372	-0.003	75	193726	60.0	60.5	
125 trans-1,4-Dichloro-2-buten	53	13.421	13.425	-0.004	23	152726	60.0	61.7	
123 N-Propylbenzene	120	13.543	13.546	-0.003	86	1103334	60.0	53.8	
126 2-Chlorotoluene	126	13.665	13.668	-0.003	83	958270	60.0	55.4	a
128 4-Chlorotoluene	126	13.856	13.860	-0.004	98	1120394	60.0	57.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.874	13.877	-0.003	90	3110830	60.0	52.5	
129 tert-Butylbenzene	119	14.448	14.451	-0.003	90	3627084	60.0	52.7	
130 1,2,4-Trimethylbenzene	105	14.535	14.538	-0.003	94	3009752	60.0	52.5	
131 sec-Butylbenzene	134	14.848	14.851	-0.003	79	987928	60.0	53.4	
132 1,3-Dichlorobenzene	146	15.005	15.008	-0.003	82	1875299	60.0	54.2	
133 4-Isopropyltoluene	119	15.126	15.130	-0.004	94	4065641	60.0	52.1	
134 1,4-Dichlorobenzene	146	15.161	15.165	-0.004	78	2335706	60.0	56.3	
138 1,2-Dichlorobenzene	146	15.805	15.808	-0.003	91	1735474	60.0	57.4	
137 n-Butylbenzene	91	15.840	15.843	-0.003	94	3396741	60.0	50.6	
139 1,2-Dibromo-3-Chloropropan	157	16.936	16.940	-0.004	88	147715	60.0	63.8	
141 1,2,4-Trichlorobenzene	180	17.876	17.862	0.014	94	1133094	60.0	53.8	
142 Hexachlorobutadiene	225	18.067	18.071	-0.004	93	1045839	60.0	51.1	
143 Naphthalene	128	18.102	18.088	0.014	95	1137483	60.0	56.3	
144 1,2,3-Trichlorobenzene	180	18.345	18.349	-0.004	96	854203	60.0	53.1	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		240.0	243.4	
S 150 Xylenes, Total (URS)	1				0		120.0	110.9	
S 151 Total BTEX	1				0			281.3	
S 148 1,3-Dichloropropene, Total	1				0		120.0	115.3	
S 145 1,2-Dichloroethene, Total	1				0		120.0	110.5	
S 146 Xylenes, Total	106				0		120.0	110.9	
S 147 1,2-Dichloroethene, Total	96				0		120.0	110.5	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

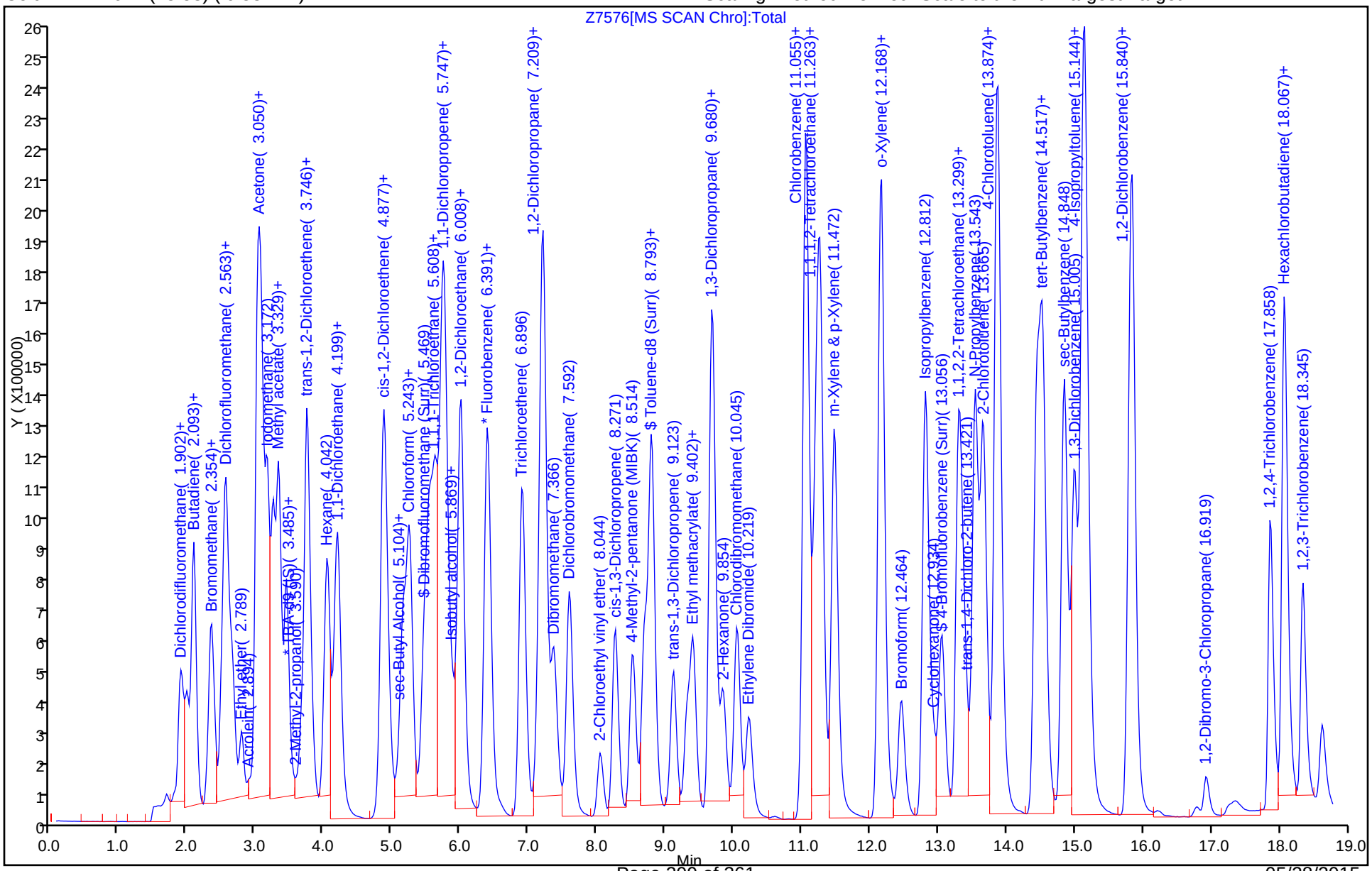
MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 30.00	Units: uL
MV-Gas/Ket A_00032	Amount Added: 30.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 30.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 2.40	Units: uL

Report Date: 14-May-2015 14:33:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D				
Injection Date:	14-May-2015 10:35:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	15
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

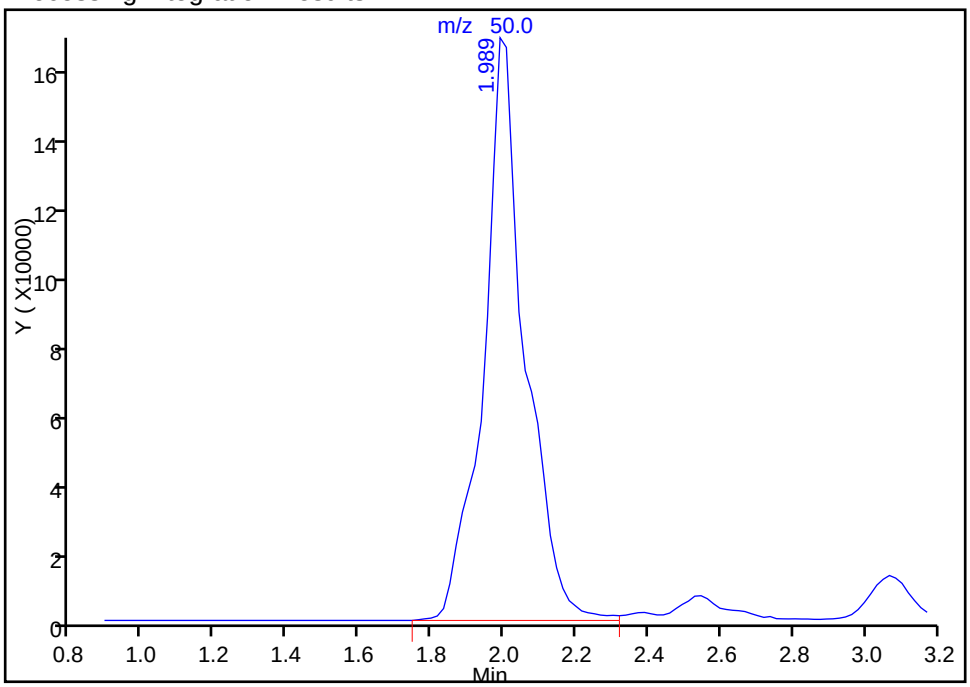
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D				
Injection Date:	14-May-2015 10:35:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

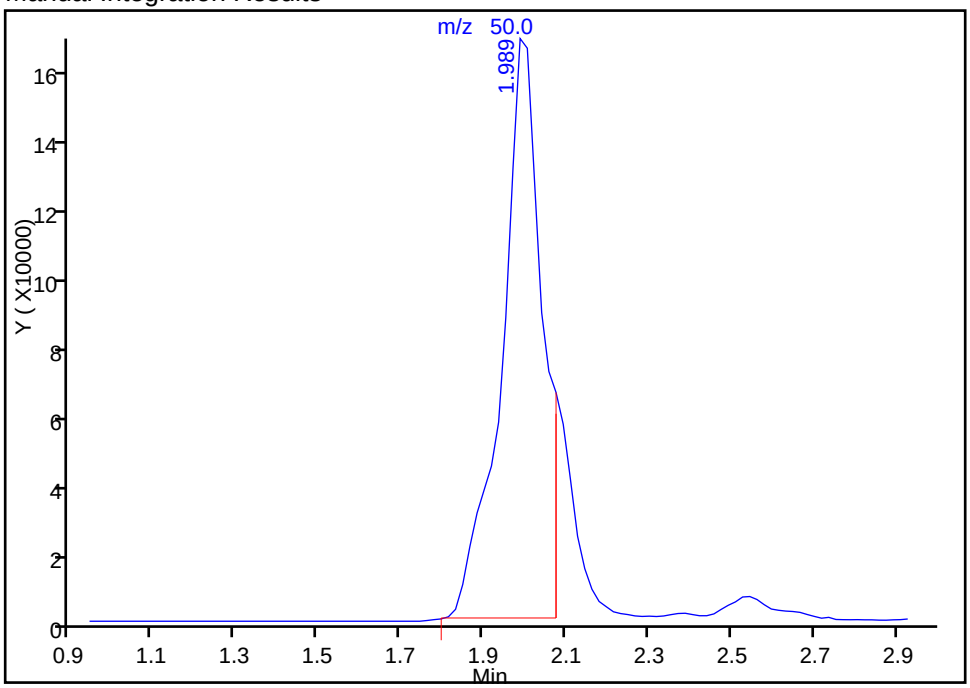
Processing Integration Results

RT: 1.99
Area: 1351330
Amount: 74.138337
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 1155711
Amount: 65.354386
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:54:02
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

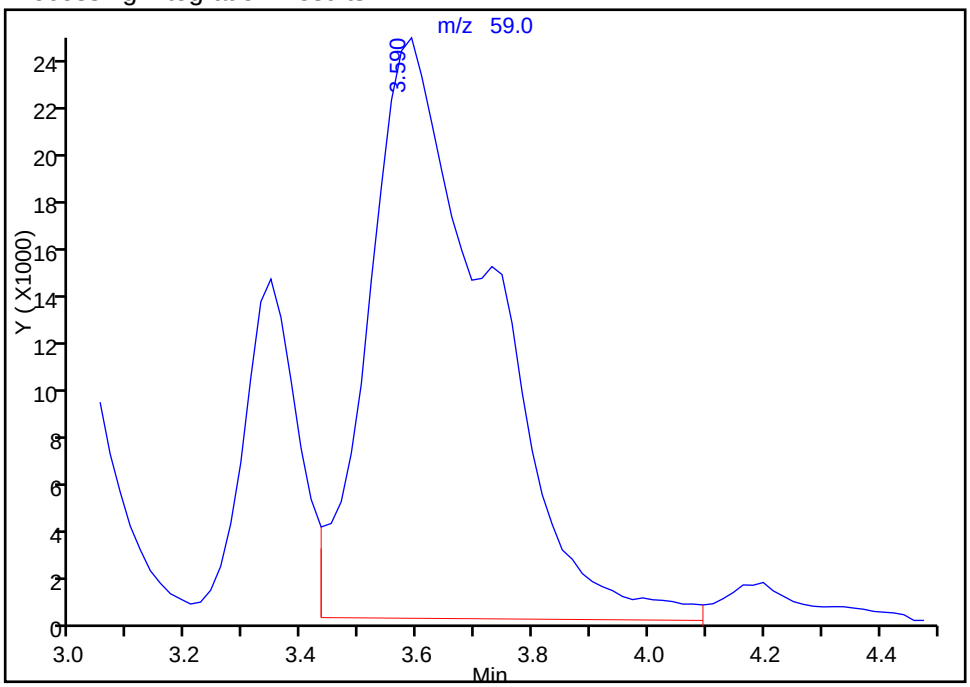
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D				
Injection Date:	14-May-2015 10:35:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

55 2-Methyl-2-propanol, CAS: 75-65-0

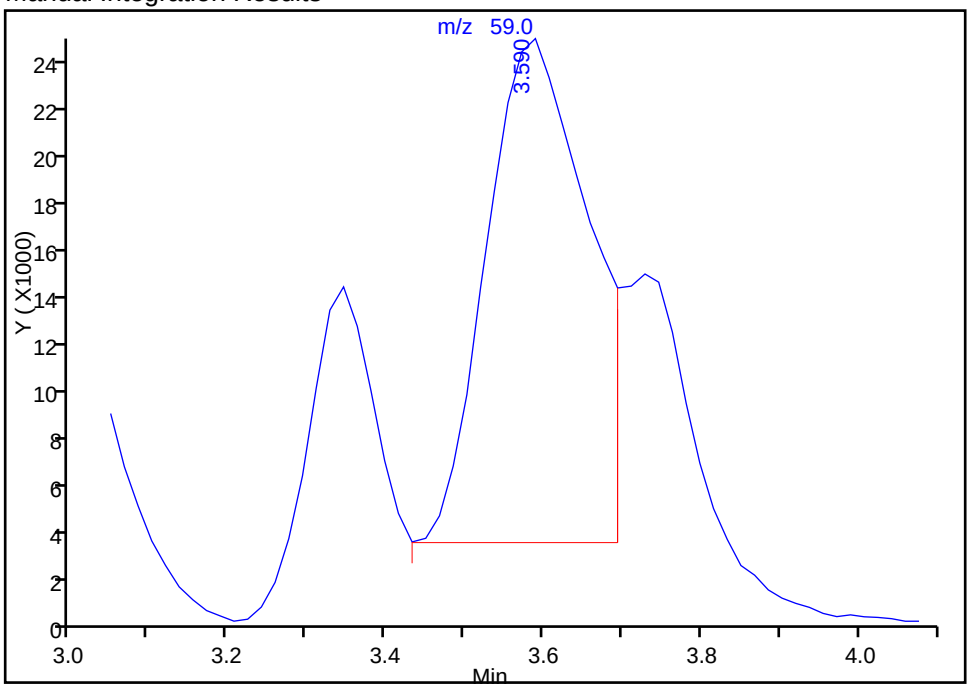
Processing Integration Results

RT: 3.59
Area: 359019
Amount: 601.4263
Amount Units: ug/l



Manual Integration Results

RT: 3.59
Area: 189201
Amount: 596.5961
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:54:02
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

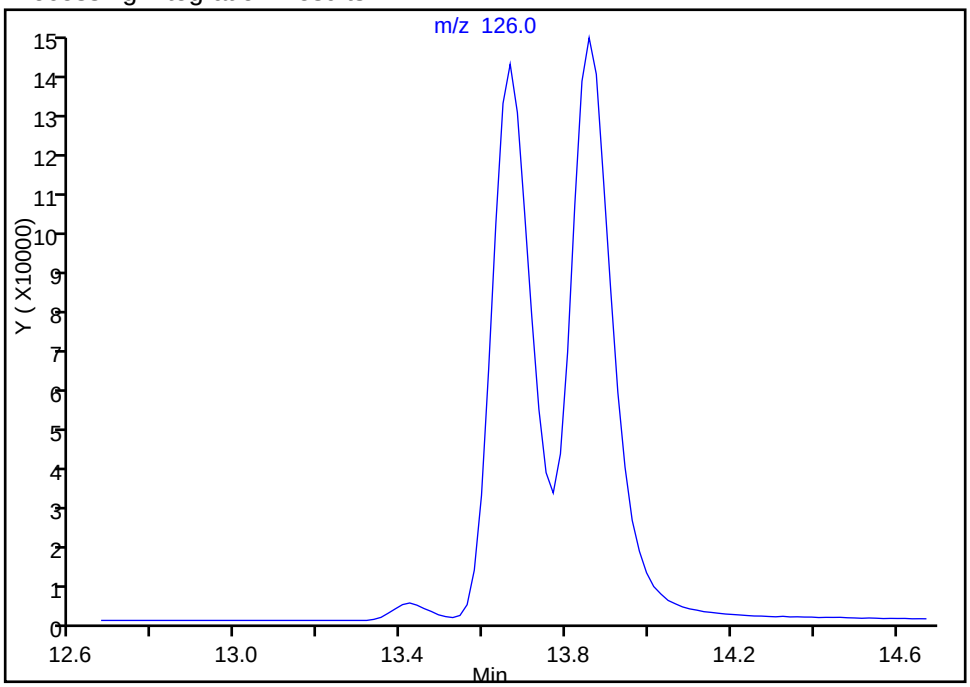
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D				
Injection Date:	14-May-2015 10:35:30	Instrument ID:	VMS_Z		
Lims ID:	ic				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

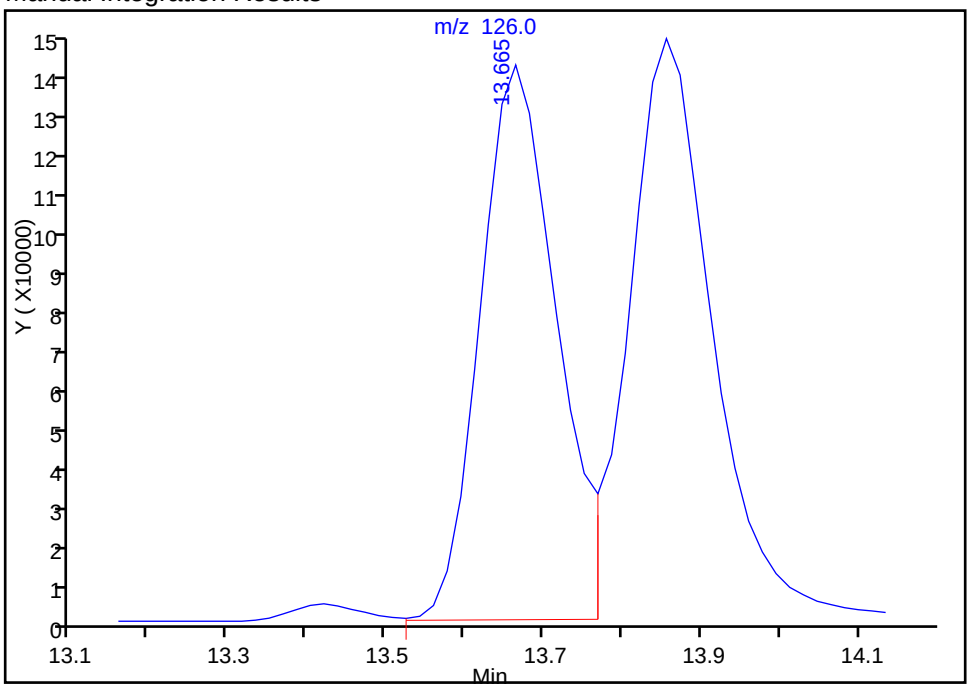
Not Detected
Expected RT: 13.67

Processing Integration Results



Manual Integration Results

RT:	13.66
Area:	958270
Amount:	55.397095
Amount Units:	ug/l



Reviewer: moanm, 14-May-2015 12:54:02
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277857

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2015 10:39 Calibration End Date: 05/18/2015 12:10 Calibration ID: 22333

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-277857/11	Z7657.D
Level 2	IC 280-277857/12	Z7658.D
Level 3	IC 280-277857/13	Z7659.D
Level 4	IC 280-277857/14	Z7660.D
Level 5	IC 280-277857/15	Z7661.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.6560	0.6100	0.5844	0.5820	0.5792	Ave		0.6023				5.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2583	0.2324	0.2245	0.2183	0.2157	Ave		0.2298				7.5		15.0			
Toluene-d8 (Surr)	4.6874	4.2597	4.1091	4.0653	3.9818	Ave		4.2206				6.6		15.0			
4-Bromofluorobenzene (Surr)	1.5502	1.4055	1.3182	1.3155	1.2904	Ave		1.3760				7.8		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-68970-1 Analy Batch No.: 277857

SDG No.:

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2015 10:39 Calibration End Date: 05/18/2015 12:10 Calibration ID: 22333

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-277857/11	Z7657.D
Level 2	IC 280-277857/12	Z7658.D
Level 3	IC 280-277857/13	Z7659.D
Level 4	IC 280-277857/14	Z7660.D
Level 5	IC 280-277857/15	Z7661.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Dibromofluoromethane (Surr)	FB	Ave	64343	151254	283648	580311	856889	2.00	5.00	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	25333	57609	108977	217658	319082	2.00	5.00	10.0	20.0	30.0
Toluene-d8 (Surr)	CBZ	Ave	118284	269227	512410	1034127	1519274	2.00	5.00	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	66907	150841	281098	569368	842278	2.00	5.00	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7657.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	18-May-2015 10:39:30	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Sublist:	chrom-AQ_VMSZ_8260*sub79				
Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2015 13:03:42	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

First Level Reviewer: moanm Date: 18-May-2015 11:20:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.485	0.006	88	115242	250.0	250.0	
* 2 Fluorobenzene	96	6.380	6.374	0.006	98	613004	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.008	11.002	0.006	85	157717	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.097	15.109	-0.012	95	269757	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.458	5.451	0.007	93	64343	2.00	2.18	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.893	5.886	0.006	93	25333	2.00	2.25	
$ 10 Toluene-d8 (Surr)	98	8.694	8.688	0.006	92	118284	2.00	2.22	
$ 11 4-Bromofluorobenzene (Surr	95	13.044	13.038	0.006	90	66907	2.00	2.25	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.16	Units: uL

Report Date: 18-May-2015 13:03:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7657.D

Injection Date: 18-May-2015 10:39:30 Instrument ID: VMS_Z Operator ID: moanm

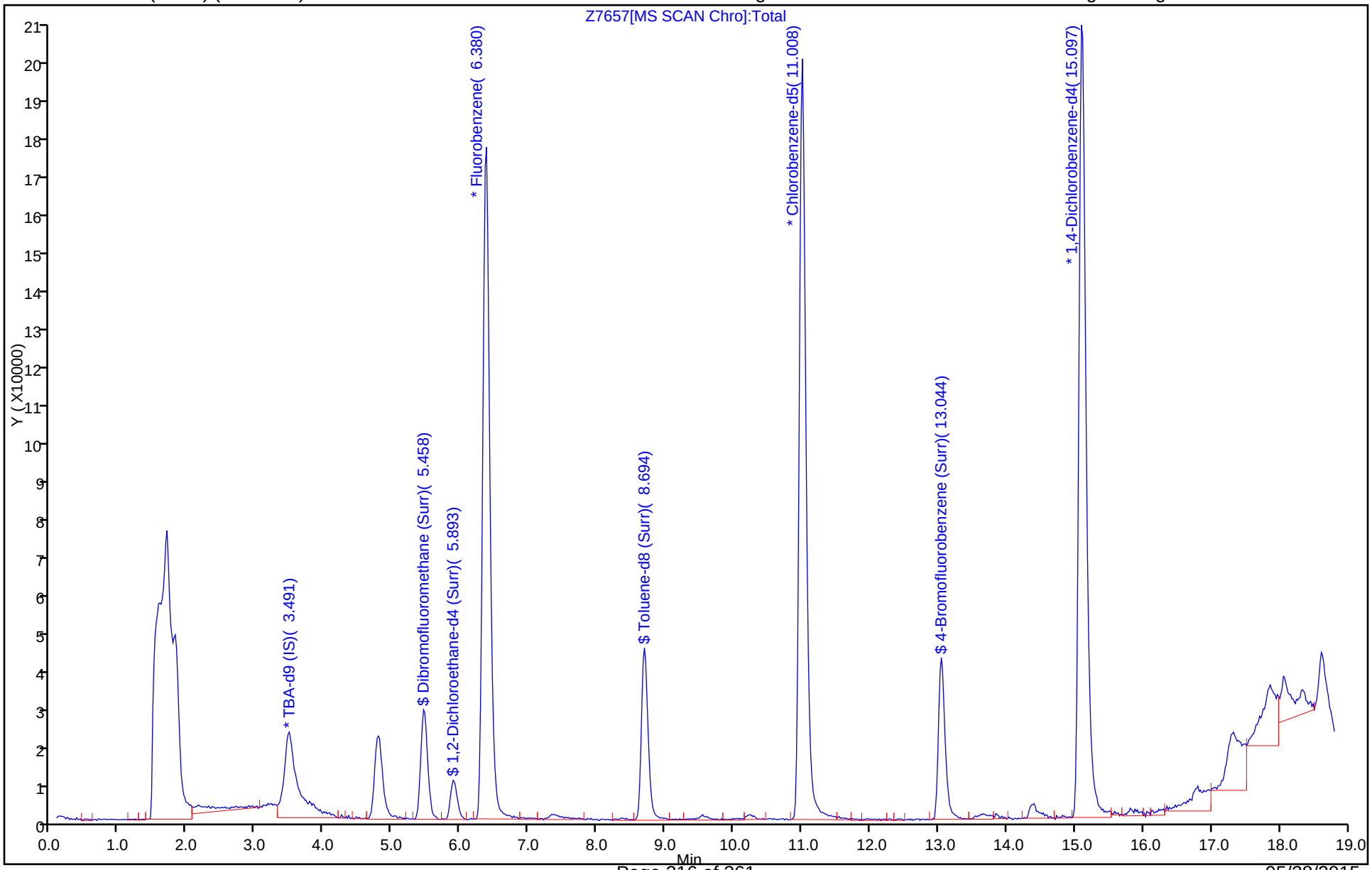
Lims ID: ic Worklist Smp#: 11

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 10

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7658.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	18-May-2015 11:02:30	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Sublist:	chrom-AQ_VMSZ_8260*sub79				
Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2015 13:03:43	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

First Level Reviewer: moanm Date: 18-May-2015 11:25:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.487	3.485	0.002	84	114069	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.374	0.001	99	619851	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.004	11.002	0.002	85	158008	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.110	15.109	0.001	95	268296	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.453	5.451	0.002	94	151254	5.00	5.06	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.888	5.886	0.002	94	57609	5.00	5.06	
$ 10 Toluene-d8 (Surr)	98	8.689	8.688	0.001	92	269227	5.00	5.05	
$ 11 4-Bromofluorobenzene (Surr	95	13.040	13.038	0.002	90	150841	5.00	5.11	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.40	Units: uL

Report Date: 18-May-2015 13:03:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7658.D

Injection Date: 18-May-2015 11:02:30 Instrument ID: VMS_Z Operator ID: moanm

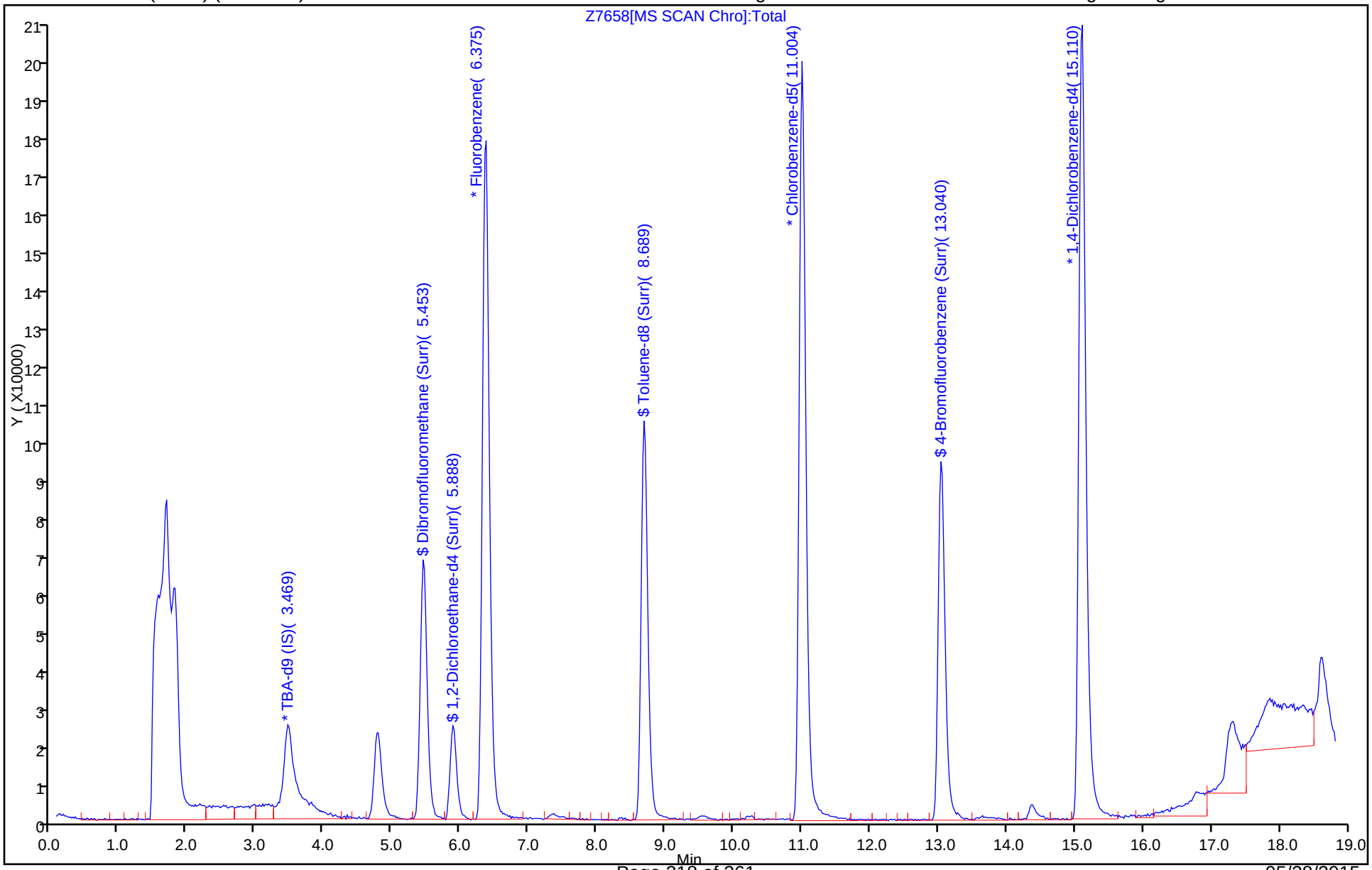
Lims ID: ic Worklist Smp#: 12

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 11

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7659.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	18-May-2015 11:25:30	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Sublist:	chrom-AQ_VMSZ_8260*sub79				
Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2015 13:03:44	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

First Level Reviewer: moanm Date: 18-May-2015 11:51:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.485	3.485	0.000	84	110918	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.374	0.000	98	606704	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.002	11.002	0.000	85	155878	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.109	15.109	0.000	95	266551	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.451	5.451	0.000	94	283648	10.0	9.70	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.886	5.886	0.000	94	108977	10.0	9.77	
$ 10 Toluene-d8 (Surr)	98	8.688	8.688	0.000	92	512410	10.0	9.74	
$ 11 4-Bromofluorobenzene (Surr	95	13.038	13.038	0.000	90	281098	10.0	9.58	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 18-May-2015 13:03:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7659.D

Injection Date: 18-May-2015 11:25:30 Instrument ID: VMS_Z Operator ID: moanm

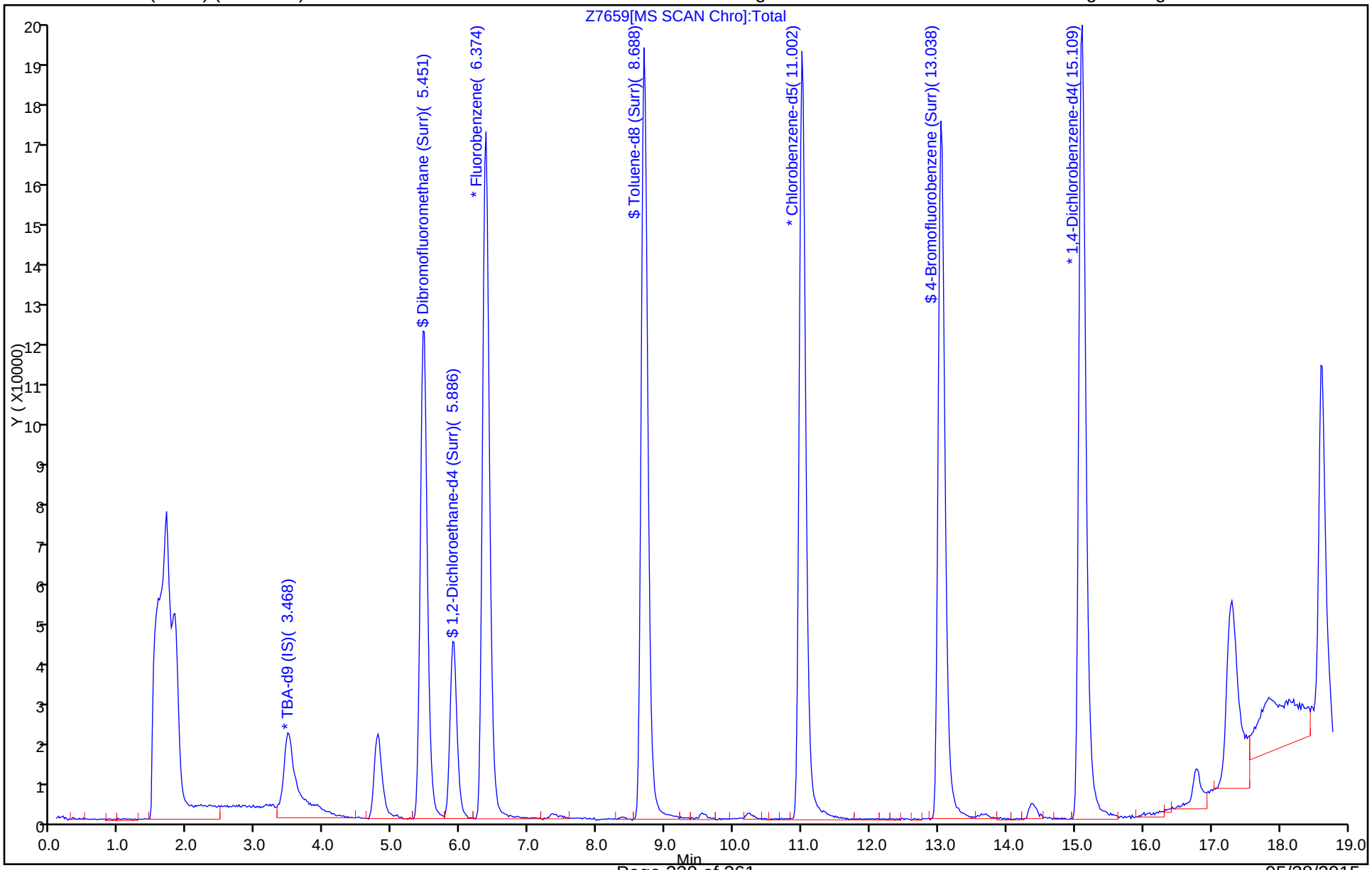
Lims ID: ic Worklist Smp#: 13

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 12

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7660.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	18-May-2015 11:47:30	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Sublist:	chrom-AQ_VMSZ_8260*sub79				
Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2015 13:03:45	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK029				
First Level Reviewer: moanm		Date:	18-May-2015 12:38:53		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.490	3.485	0.005	89	105594	250.0	250.0	
* 2 Fluorobenzene	96	6.361	6.374	-0.013	98	623223	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.007	11.002	0.005	85	158988	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.109	0.004	95	270519	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.456	5.451	0.005	94	580311	20.0	19.3	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.891	5.886	0.005	94	217658	20.0	19.0	
$ 10 Toluene-d8 (Surr)	98	8.692	8.688	0.004	92	1034127	20.0	19.3	
$ 11 4-Bromofluorobenzene (Surr	95	13.043	13.038	0.005	91	569368	20.0	19.1	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	1.60	Units: uL

Report Date: 18-May-2015 13:03:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7660.D

Injection Date: 18-May-2015 11:47:30 Instrument ID: VMS_Z Operator ID: moanm

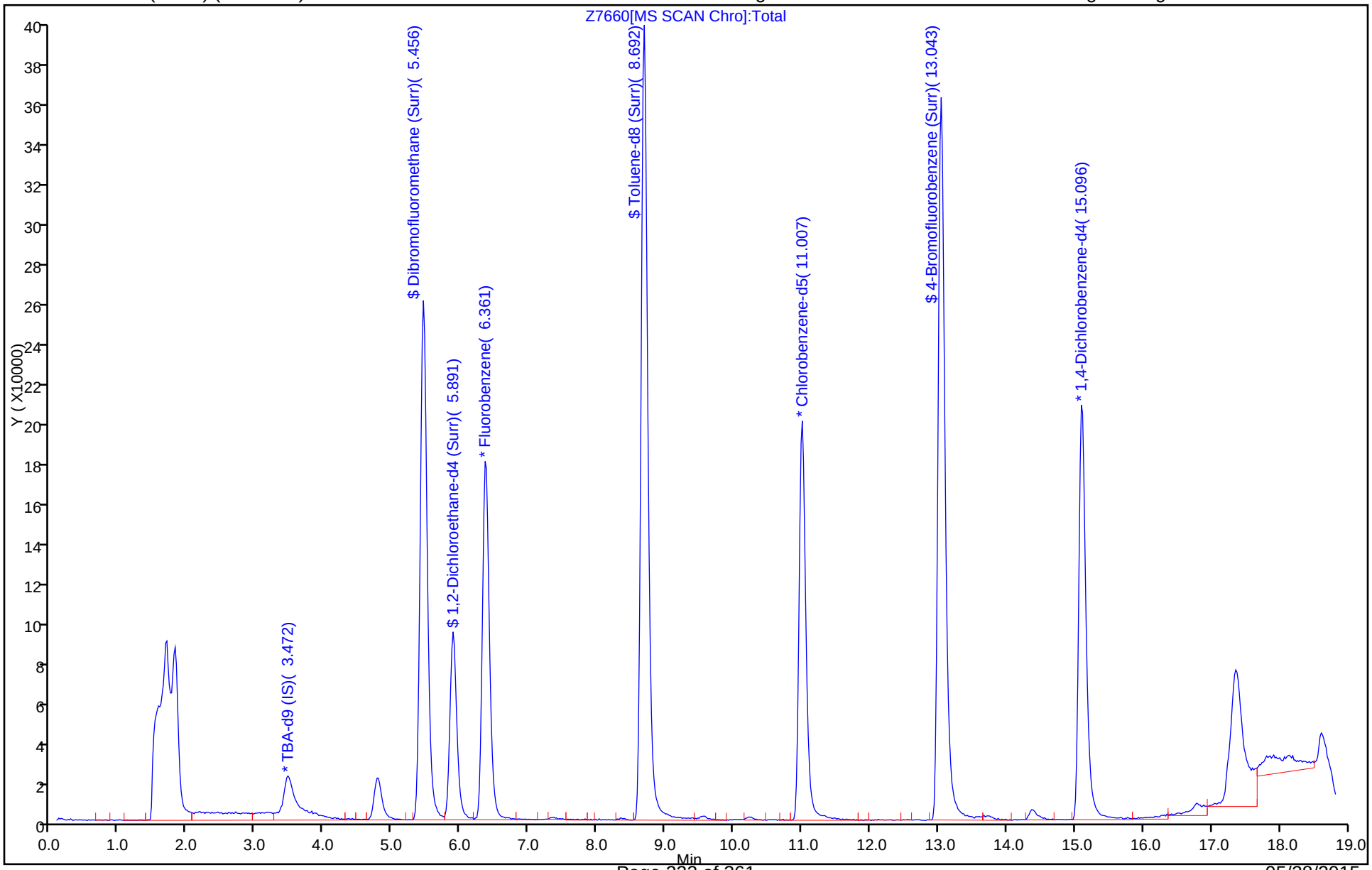
Lims ID: ic Worklist Smp#: 14

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 13

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	18-May-2015 12:10:30	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Sublist:	chrom-AQ_VMSZ_8260*sub79				
Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2015 13:03:45	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

First Level Reviewer: moanm Date: 18-May-2015 12:39:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.487	3.485	0.002	90	106389	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.374	0.001	98	616467	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.004	11.002	0.002	85	158980	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.110	15.109	0.001	95	271973	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.470	5.451	0.019	94	856889	30.0	28.8	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.888	5.886	0.002	94	319082	30.0	28.2	
$ 10 Toluene-d8 (Surr)	98	8.689	8.688	0.001	92	1519274	30.0	28.3	
$ 11 4-Bromofluorobenzene (Surr	95	13.040	13.038	0.002	91	842278	30.0	28.1	

Reagents:

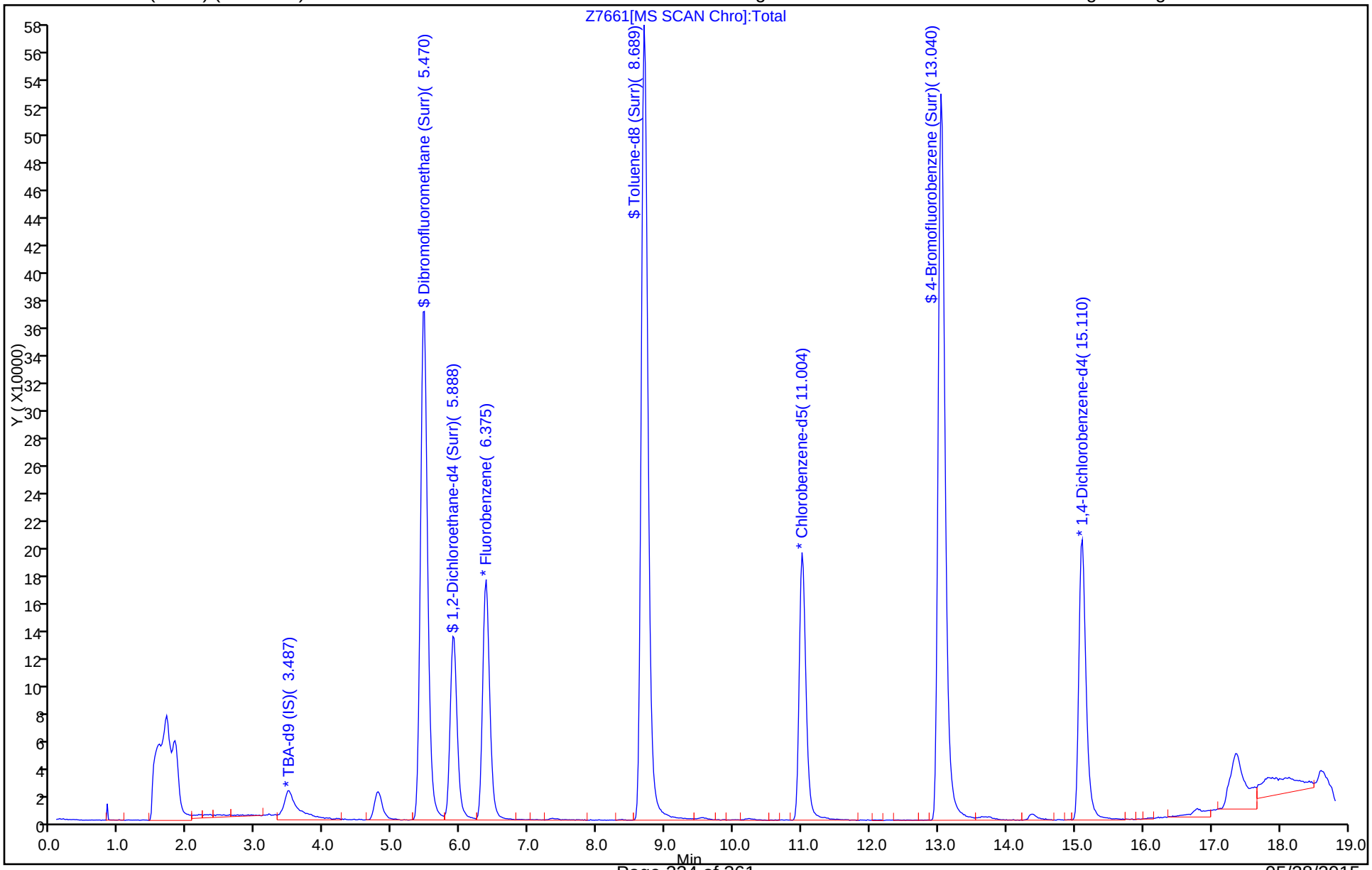
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	2.40	Units: uL

Report Date: 18-May-2015 13:03:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Injection Date:	18-May-2015 12:10:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ic			Worklist Smp#:	15
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-274661/24 Calibration Date: 04/27/2015 14:12

Instrument ID: VMS_Z Calib Start Date: 11/05/2014 00:47

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 11/05/2014 02:43

Lab File ID: Z6780.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Ave	0.0003	0.0003			500	-2.3	20.0

FORM VII 8260B

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Apr-2015 14:12:30 ALS Bottle#: 20 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: moanm Instrument ID: VMS_Z
Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:23 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 14:37:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.468	3.485	-0.017	71	125414	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	86	744177	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.005	11.005	0.000	87	174677	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	94	309431	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.452	5.469	-0.017	58	312930	10.0	9.30	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.887	5.905	-0.018	62	130785	10.0	9.63	
$ 10 Toluene-d8 (Surr)	98	8.690	8.690	0.000	93	583403	10.0	9.26	
$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	86	323617	10.0	9.30	
34 Ethylene oxide	43	2.284	2.301	-0.017	99	508570	2000.0	1840.3	
39 Ethanol	45	2.702	2.684	0.018	46	10081	NC	NC	
42 Propene oxide	58	2.859	2.876	-0.017	96	492668	500.0	433.6	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.294	3.276	0.018	66	24872	100.0	83.3	
60 Isopropyl ether	87	4.286	4.303	-0.017	97	147699	10.0	10.3	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	71	274686	10.0	9.85	
64 Tert-butyl ethyl ether	59	4.721	4.738	-0.017	98	463095	10.0	9.79	
69 Propionitrile	54	4.913	4.912	0.001	75	48586	100.0	100.9	
68 Ethyl acetate	43	4.947	4.947	0.000	70	51979	20.0	9.94	
73 Methacrylonitrile	41	5.104	5.121	-0.017	93	296987	100.0	96.5	
83 Tert-amyl methyl ether	73	6.183	6.183	0.000	56	392418	10.0	9.66	M
86 n-Butanol	56	6.793	6.792	0.001	66	27019	250.0	228.9	
88 Ethyl acrylate	55	6.775	6.792	-0.017	1	3489	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	91	47579	20.0	19.6	
95 2-Nitropropane	41	7.889	7.889	0.000	90	23276	20.0	17.8	
106 Tetrahydrothiophene	60	10.030	10.030	0.000	82	38994	10.0	7.62	
120 cis-1,4-Dichloro-2-butene	53	12.885	12.885	0.000	0	25121	10.0	9.45	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	76	523134	10.0	10.0	
140 1,3,5-Trichlorobenzene	180	17.202	17.202	0.000	98	304005	10.0	10.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

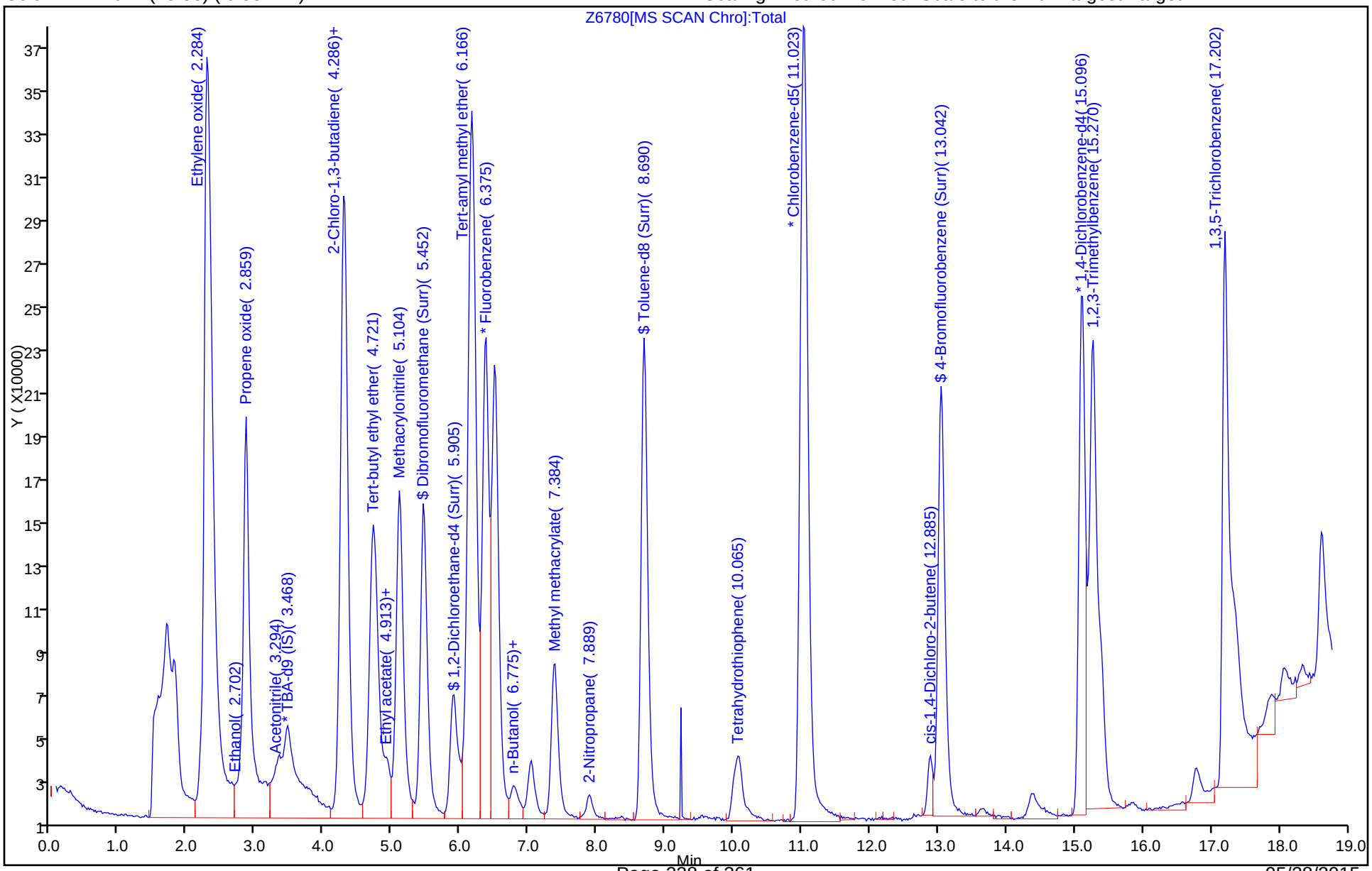
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Supp B_00005	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 27-Apr-2015 20:56:25 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D				
Injection Date:	27-Apr-2015 14:12:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icv			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-274661/24 Calibration Date: 04/27/2015 14:12

Instrument ID: VMS_Z Calib Start Date: 12/11/2014 13:08

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 12/11/2014 15:07

Lab File ID: Z6780.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl alcohol	Lin2				32.0	100	-100.0*	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Apr-2015 14:12:30 ALS Bottle#: 20 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: moanm Instrument ID: VMS_Z
Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:23 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 14:37:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.468	3.485	-0.017	71	125414	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	86	744177	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.005	11.005	0.000	87	174677	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	94	309431	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.452	5.469	-0.017	58	312930	10.0	9.30	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.887	5.905	-0.018	62	130785	10.0	9.63	
$ 10 Toluene-d8 (Surr)	98	8.690	8.690	0.000	93	583403	10.0	9.26	
$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	86	323617	10.0	9.30	
34 Ethylene oxide	43	2.284	2.301	-0.017	99	508570	2000.0	1840.3	
39 Ethanol	45	2.702	2.684	0.018	46	10081	NC	NC	
42 Propene oxide	58	2.859	2.876	-0.017	96	492668	500.0	433.6	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.294	3.276	0.018	66	24872	100.0	83.3	
60 Isopropyl ether	87	4.286	4.303	-0.017	97	147699	10.0	10.3	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	71	274686	10.0	9.85	
64 Tert-butyl ethyl ether	59	4.721	4.738	-0.017	98	463095	10.0	9.79	
69 Propionitrile	54	4.913	4.912	0.001	75	48586	100.0	100.9	
68 Ethyl acetate	43	4.947	4.947	0.000	70	51979	20.0	9.94	
73 Methacrylonitrile	41	5.104	5.121	-0.017	93	296987	100.0	96.5	
83 Tert-amyl methyl ether	73	6.183	6.183	0.000	56	392418	10.0	9.66	M
86 n-Butanol	56	6.793	6.792	0.001	66	27019	250.0	228.9	
88 Ethyl acrylate	55	6.775	6.792	-0.017	1	3489	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	91	47579	20.0	19.6	
95 2-Nitropropane	41	7.889	7.889	0.000	90	23276	20.0	17.8	
106 Tetrahydrothiophene	60	10.030	10.030	0.000	82	38994	10.0	7.62	
120 cis-1,4-Dichloro-2-butene	53	12.885	12.885	0.000	0	25121	10.0	9.45	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	76	523134	10.0	10.0	
140 1,3,5-Trichlorobenzene	180	17.202	17.202	0.000	98	304005	10.0	10.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

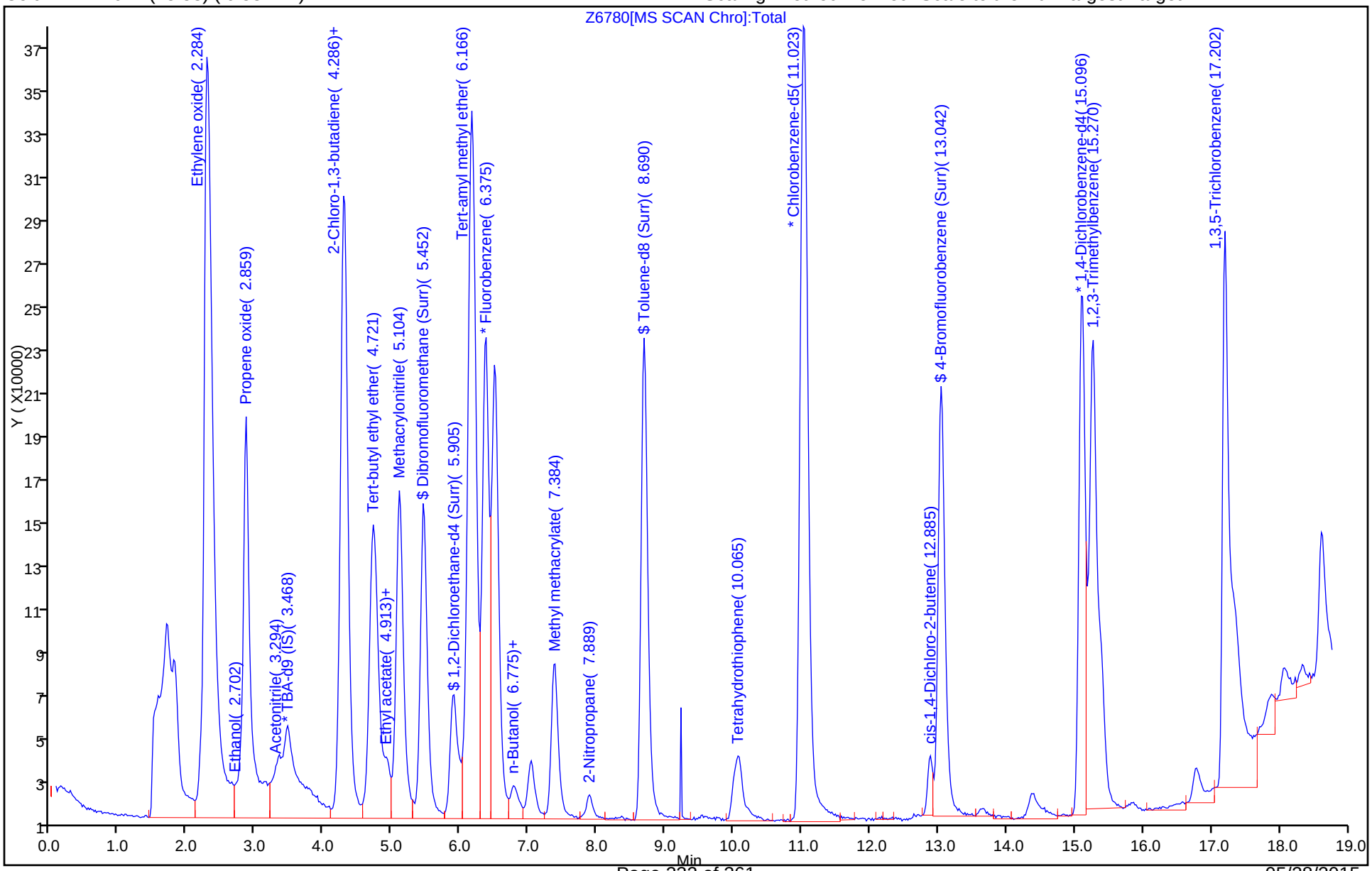
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Supp B_00005	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 27-Apr-2015 20:56:25 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D				
Injection Date:	27-Apr-2015 14:12:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icv			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-274661/24 Calibration Date: 04/27/2015 14:12

Instrument ID: VMS_Z Calib Start Date: 04/27/2015 11:28

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/27/2015 13:21

Lab File ID: Z6780.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0050	0.0042		83.3	100	-16.7	20.0
Isopropyl ether	Ave	0.2406	0.2481		10.3	10.0	3.1	20.0
2-Chloro-1,3-butadiene	Ave	0.4684	0.4614		9.85	10.0	-1.5	20.0
Tert-butyl ethyl ether	Ave	0.7946	0.7779		9.79	10.0	-2.1	20.0
Propionitrile	Ave	0.0081	0.0082		101	100	0.9	20.0
Ethyl acetate	Ave	0.0878	0.0437		9.94	20.0	-50.3*	20.0
Methacrylonitrile	Ave	0.0517	0.0499		96.5	100	-3.5	20.0
Tert-amyl methyl ether	Ave	0.6822	0.6592		9.66	10.0	-3.4	20.0
n-Butanol	Ave	0.0020	0.0018		229	250	-8.5	20.0
Methyl methacrylate	Ave	0.0408	0.0400		19.6	20.0	-2.0	20.0
2-Nitropropane	Ave	0.0219	0.0196		17.8	20.0	-10.9	20.0
cis-1,4-Dichloro-2-butene	Ave	0.1074	0.1015		9.45	10.0	-5.5	20.0
1,2,3-Trimethylbenzene	Ave	2.113	2.113		10.0	10.0	0.0	20.0
Dibromofluoromethane (Surr)	Ave	0.5651	0.5256		9.30	10.0	-7.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2282	0.2197		9.63	10.0	-3.7	20.0
Toluene-d8 (Surr)	Ave	4.509	4.175		9.26	10.0	-7.4	20.0
4-Bromofluorobenzene (Surr)	Ave	1.406	1.307		9.30	10.0	-7.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Apr-2015 14:12:30 ALS Bottle#: 20 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: moanm Instrument ID: VMS_Z
Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 27-Apr-2015 20:56:23 Calib Date: 27-Apr-2015 13:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 27-Apr-2015 14:37:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.468	3.485	-0.017	71	125414	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	86	744177	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.005	11.005	0.000	87	174677	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	94	309431	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.452	5.469	-0.017	58	312930	10.0	9.30	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.887	5.905	-0.018	62	130785	10.0	9.63	
$ 10 Toluene-d8 (Surr)	98	8.690	8.690	0.000	93	583403	10.0	9.26	
$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	86	323617	10.0	9.30	
34 Ethylene oxide	43	2.284	2.301	-0.017	99	508570	2000.0	1840.3	
39 Ethanol	45	2.702	2.684	0.018	46	10081	NC	NC	
42 Propene oxide	58	2.859	2.876	-0.017	96	492668	500.0	433.6	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.294	3.276	0.018	66	24872	100.0	83.3	
60 Isopropyl ether	87	4.286	4.303	-0.017	97	147699	10.0	10.3	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	71	274686	10.0	9.85	
64 Tert-butyl ethyl ether	59	4.721	4.738	-0.017	98	463095	10.0	9.79	
69 Propionitrile	54	4.913	4.912	0.001	75	48586	100.0	100.9	
68 Ethyl acetate	43	4.947	4.947	0.000	70	51979	20.0	9.94	
73 Methacrylonitrile	41	5.104	5.121	-0.017	93	296987	100.0	96.5	
83 Tert-amyl methyl ether	73	6.183	6.183	0.000	56	392418	10.0	9.66	M
86 n-Butanol	56	6.793	6.792	0.001	66	27019	250.0	228.9	
88 Ethyl acrylate	55	6.775	6.792	-0.017	1	3489	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	91	47579	20.0	19.6	
95 2-Nitropropane	41	7.889	7.889	0.000	90	23276	20.0	17.8	
106 Tetrahydrothiophene	60	10.030	10.030	0.000	82	38994	10.0	7.62	
120 cis-1,4-Dichloro-2-butene	53	12.885	12.885	0.000	0	25121	10.0	9.45	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	76	523134	10.0	10.0	
140 1,3,5-Trichlorobenzene	180	17.202	17.202	0.000	98	304005	10.0	10.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

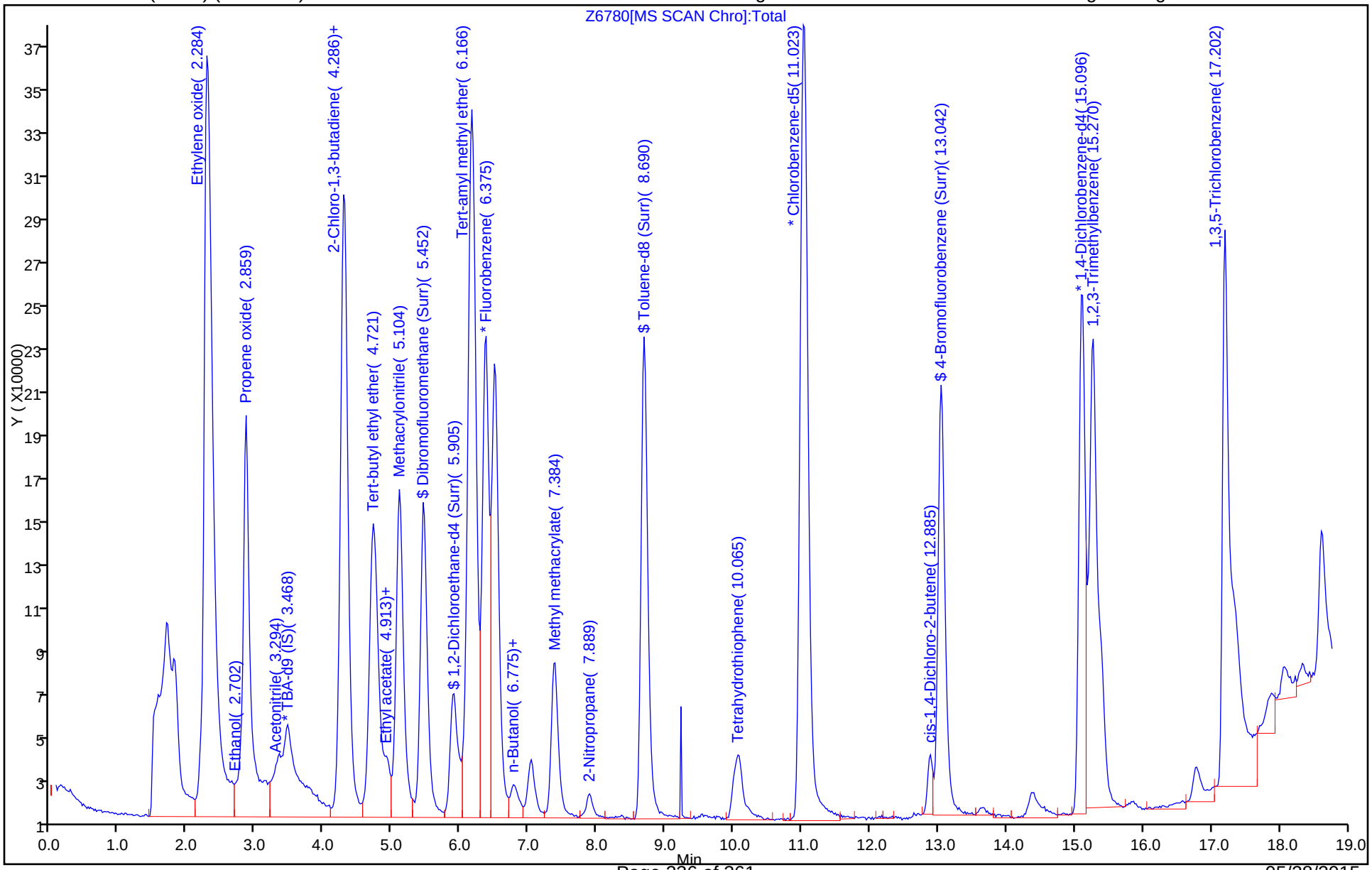
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Supp B_00005	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 27-Apr-2015 20:56:25 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D				
Injection Date:	27-Apr-2015 14:12:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icv			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

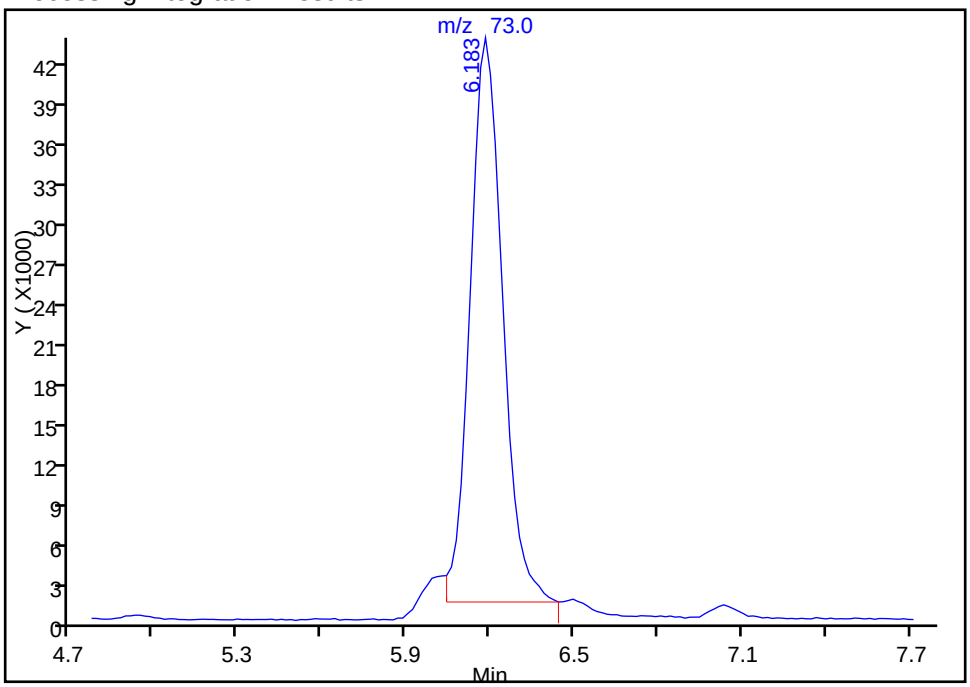
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6780.D				
Injection Date:	27-Apr-2015 14:12:30	Instrument ID:	VMS_Z		
Lims ID:	icv				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	20	Worklist Smp#:	24
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

83 Tert-amyl methyl ether, CAS: 994-05-8

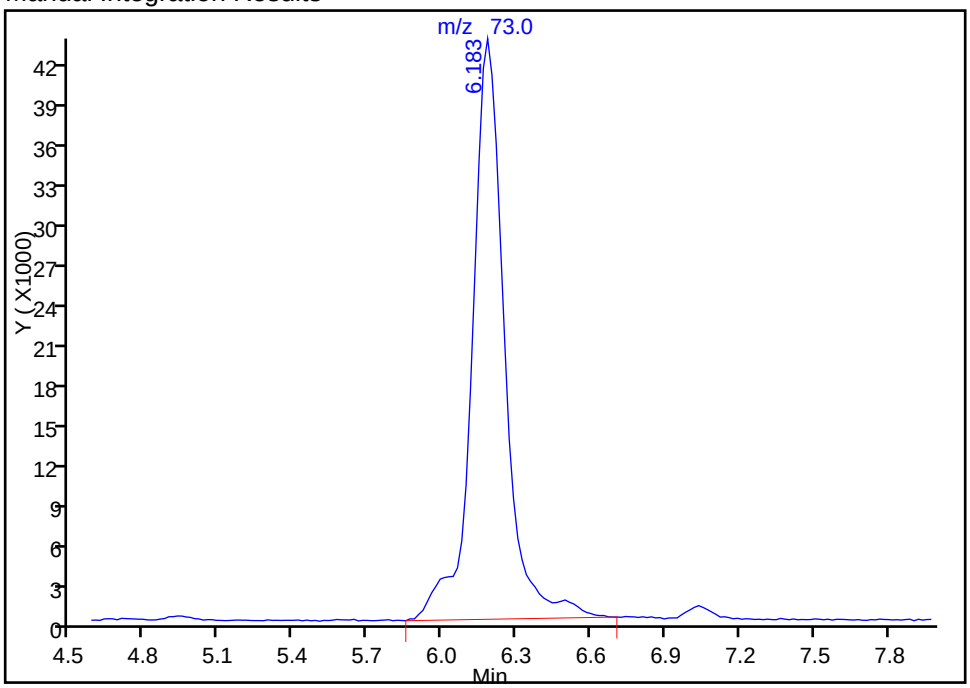
Processing Integration Results

RT: 6.18
Area: 336465
Amount: 8.284038
Amount Units: ug/l



Manual Integration Results

RT: 6.18
Area: 392418
Amount: 9.661646
Amount Units: ug/l



Reviewer: bergerb, 27-Apr-2015 20:41:43
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-277378/16 Calibration Date: 05/14/2015 11:21

Instrument ID: VMS_Z Calib Start Date: 04/06/2015 23:25

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/07/2015 01:41

Lab File ID: Z7578.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2				160	200	-100.0*	20.0

FORM VII 8260B

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 14-May-2015 11:21:30 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: moanm Instrument ID: VMS_Z
Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:07 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 11:55:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.490	3.489	0.001	9	120219	250.0	250.0	
* 2 Fluorobenzene	96	6.378	6.377	0.001	94	729435	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.024	11.023	0.001	85	172126	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.112	0.001	75	307598	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.474	5.473	0.002	57	325595	10.0	9.46	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.891	5.908	-0.017	91	133382	10.0	8.93	
$ 10 Toluene-d8 (Surr)	98	8.693	8.692	0.001	90	580415	10.0	10.1	
$ 11 4-Bromofluorobenzene (Surr	95	13.043	13.059	-0.016	84	316025	10.0	9.68	
27 Dichlorodifluoromethane	85	1.906	1.923	-0.017	98	311846	10.0	11.2	
30 Chloromethane	50	1.993	1.992	0.001	99	182982	10.0	10.1	M
31 Butadiene	54	2.080	2.097	-0.017	91	122218	NC	NC	
32 Vinyl chloride	62	2.115	2.114	0.001	81	177366	10.0	10.2	
35 Bromomethane	94	2.341	2.340	0.001	88	182455	10.0	9.76	
36 Chloroethane	64	2.394	2.393	0.001	83	117469	10.0	9.86	
37 Dichlorofluoromethane	67	2.550	2.549	0.001	92	448879	10.0	9.39	
38 Trichlorofluoromethane	101	2.602	2.601	0.001	98	400657	10.0	9.73	
40 Ethyl ether	59	2.794	2.810	-0.016	86	74892	10.0	9.50	
44 Acrolein	56	2.916	2.915	0.001	62	52776	100.0	112.9	
48 Acetone	43	3.055	3.036	0.019	11	32500	40.0	36.9	
45 1,1-Dichloroethene	96	3.037	3.036	0.001	94	182479	10.0	9.49	
46 1,1,2-Trichloro-1,2,2-trif	151	3.090	3.089	0.001	85	287406	10.0	9.94	
49 Iodomethane	142	3.194	3.193	0.001	98	514567	10.0	10.2	
50 Carbon disulfide	76	3.281	3.280	0.001	98	641551	10.0	9.79	
52 3-Chloro-1-propene	41	3.351	3.350	0.001	81	247192	10.0	8.73	
51 Methyl acetate	43	3.351	3.350	0.001	70	176288	50.0	44.7	
54 Methylene Chloride	84	3.472	3.471	0.001	86	151288	10.0	9.22	
55 2-Methyl-2-propanol	59	3.577	3.558	0.019	6	31030	100.0	91.5	M
58 Acrylonitrile	53	3.681	3.680	0.001	97	118329	100.0	93.3	
57 trans-1,2-Dichloroethene	96	3.768	3.767	0.001	95	204301	10.0	9.83	
56 Methyl tert-butyl ether	73	3.786	3.785	0.001	55	267584	10.0	9.03	
59 Hexane	57	4.064	4.063	0.001	90	278106	10.0	9.59	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.203	4.202	0.001	96	342474	10.0	9.29	
61 Vinyl acetate	43	4.221	4.220	0.001	64	378131	20.0	21.2	
67 2-Butanone (MEK)	43	4.865	4.881	-0.017	38	76525	40.0	35.7	
65 cis-1,2-Dichloroethene	96	4.882	4.881	0.001	74	194362	10.0	9.49	
66 2,2-Dichloropropane	77	4.899	4.898	0.001	69	342364	10.0	10.7	
70 sec-Butyl Alcohol	45	5.108	5.107	0.001	51	113138	300.0	298.2	
71 Chlorobromomethane	128	5.178	5.177	0.001	69	98397	10.0	9.98	
72 Tetrahydrofuran	42	5.265	5.264	0.001	31	24694	20.0	17.3	
74 Chloroform	83	5.265	5.264	0.001	91	344935	10.0	9.47	
75 1,1,1-Trichloroethane	97	5.543	5.542	0.001	88	338993	10.0	9.37	
76 Cyclohexane	56	5.648	5.647	0.002	88	308989	10.0	9.31	
78 1,1-Dichloropropene	75	5.735	5.751	-0.016	82	310594	10.0	10.4	
77 Carbon tetrachloride	117	5.787	5.786	0.001	78	360641	10.0	10.1	
80 Isobutyl alcohol	41	5.874	5.873	0.001	24	33426	250.0	266.7	
82 1,2-Dichloroethane	62	5.996	5.995	0.001	44	132554	10.0	9.19	
81 Benzene	78	6.013	6.012	0.001	91	538183	10.0	9.40	
84 n-Heptane	43	6.396	6.395	0.001	67	325169	10.0	9.71	
85 Trichloroethene	95	6.900	6.899	0.001	84	243486	10.0	9.76	
89 2-Pentanone	43	7.144	7.143	0.001	84	176214	40.0	38.1	
90 1,2-Dichloropropane	63	7.196	7.195	0.001	76	187263	10.0	9.49	
87 Methylcyclohexane	55	7.214	7.213	0.001	85	266179	10.0	9.42	
92 Dibromomethane	93	7.370	7.369	0.001	83	104901	10.0	9.51	
94 Dichlorobromomethane	83	7.596	7.595	0.001	95	290786	10.0	9.33	
96 2-Chloroethyl vinyl ether	63	8.049	8.048	0.001	80	64009	10.0	10.3	
97 cis-1,3-Dichloropropene	75	8.275	8.274	0.001	83	255296	10.0	10.4	
98 4-Methyl-2-pentanone (MIBK	43	8.519	8.518	0.001	61	245959	40.0	37.8	
99 Toluene	91	8.797	8.796	0.001	97	609507	10.0	9.98	
100 trans-1,3-Dichloropropene	75	9.128	9.127	0.001	90	189510	10.0	10.8	
101 Ethyl methacrylate	69	9.319	9.318	0.001	72	133232	10.0	9.62	
102 1,1,2-Trichloroethane	97	9.406	9.405	0.001	75	106097	10.0	9.67	
104 1,3-Dichloropropane	76	9.667	9.666	0.001	70	177451	10.0	10.0	
103 Tetrachloroethene	164	9.684	9.701	-0.017	97	242337	10.0	11.2	
105 2-Hexanone	43	9.841	9.840	0.001	74	154458	40.0	37.6	
107 Chlorodibromomethane	129	10.050	10.049	0.001	88	227372	10.0	10.7	
109 Ethylene Dibromide	107	10.224	10.223	0.001	77	145268	10.0	10.3	
111 Chlorobenzene	112	11.059	11.058	0.001	91	438234	10.0	10.4	
110 1-Chlorohexane	91	11.059	11.058	0.001	77	295692	10.0	10.7	
113 1,1,1,2-Tetrachloroethane	131	11.216	11.215	0.001	72	225100	10.0	10.7	
112 Ethylbenzene	106	11.268	11.267	0.001	95	214183	10.0	10.3	
114 m-Xylene & p-Xylene	106	11.477	11.476	0.001	98	290438	10.0	10.6	
115 o-Xylene	106	12.155	12.154	0.001	89	250965	10.0	10.5	
116 Styrene	104	12.173	12.172	0.001	88	397649	10.0	10.5	
117 Bromoform	173	12.451	12.450	0.001	95	120417	10.0	10.7	
118 Isopropylbenzene	105	12.817	12.816	0.001	87	800049	10.0	10.0	
119 Cyclohexanone	55	12.938	12.937	0.001	74	65725	400.0	395.0	
121 Bromobenzene	156	13.304	13.303	0.001	87	219329	10.0	10.4	
122 1,1,2,2-Tetrachloroethane	83	13.304	13.320	-0.016	53	141457	10.0	9.73	
124 1,2,3-Trichloropropane	110	13.373	13.372	0.001	55	33535	10.0	10.0	
125 trans-1,4-Dichloro-2-buten	53	13.408	13.425	-0.017	1	28327	10.0	11.0	
123 N-Propylbenzene	120	13.547	13.546	0.001	87	222943	10.0	10.4	
126 2-Chlorotoluene	126	13.652	13.668	-0.016	93	183632	10.0	10.2	a
128 4-Chlorotoluene	126	13.861	13.860	0.001	81	225096	10.0	11.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.878	13.877	0.001	91	610263	10.0	9.87	
129 tert-Butylbenzene	119	14.435	14.451	-0.016	87	728571	10.0	10.1	
130 1,2,4-Trimethylbenzene	105	14.539	14.538	0.001	94	589874	10.0	9.86	
131 sec-Butylbenzene	134	14.852	14.851	0.001	79	203479	10.0	10.5	
132 1,3-Dichlorobenzene	146	14.992	15.008	-0.016	71	376310	10.0	10.4	
133 4-Isopropyltoluene	119	15.131	15.130	0.001	90	816522	10.0	10.0	
134 1,4-Dichlorobenzene	146	15.166	15.165	0.001	81	453083	10.0	10.5	
138 1,2-Dichlorobenzene	146	15.810	15.808	0.002	80	326943	10.0	10.4	
137 n-Butylbenzene	91	15.844	15.843	0.001	93	716236	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	16.923	16.940	-0.017	69	26329	10.0	10.9	
141 1,2,4-Trichlorobenzene	180	17.863	17.862	0.001	94	244009	10.0	11.1	
142 Hexachlorobutadiene	225	18.072	18.071	0.001	94	247355	10.0	11.6	
143 Naphthalene	128	18.089	18.088	0.001	95	226977	10.0	10.8	
144 1,2,3-Trichlorobenzene	180	18.350	18.349	0.001	91	183137	10.0	10.9	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		40.0	40.2	
S 150 Xylenes, Total (URS)	1				0		20.0	21.1	
S 148 1,3-Dichloropropene, Total	1				0		20.0	21.2	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.3	
S 146 Xylenes, Total	106				0		20.0	21.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.3	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

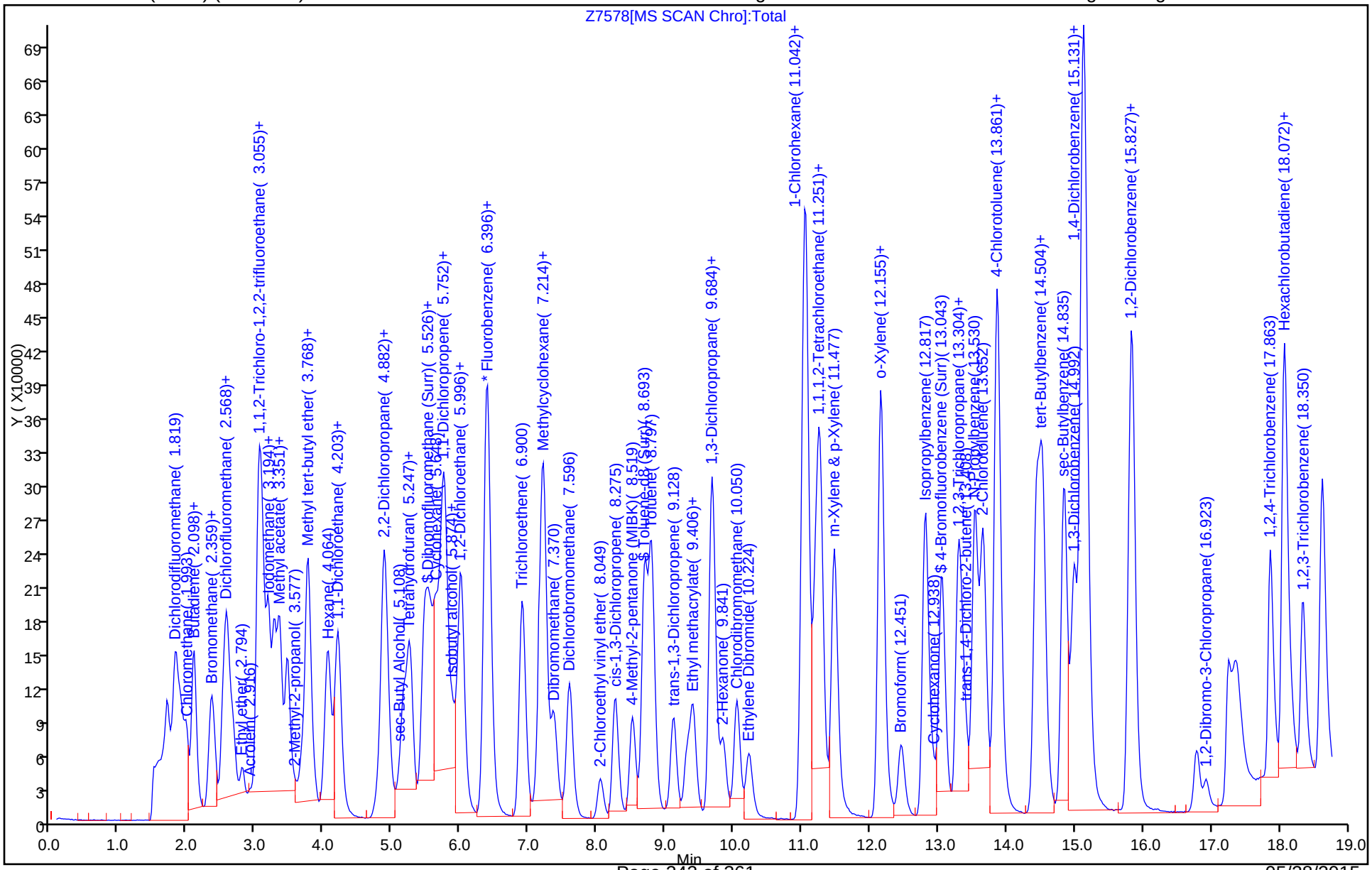
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main B_00009	Amount Added:	5.00	Units: uL
MV-Gas/Ket B_00019	Amount Added:	5.00	Units: uL
MV-SS 2-Cleve_00020	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 14-May-2015 14:33:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D				
Injection Date:	14-May-2015 11:21:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icv			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-277378/16 Calibration Date: 05/14/2015 11:21

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7578.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4755	0.5344		11.2	10.0	12.4	20.0
Chloromethane	Ave	0.3090	0.3136	0.1000	10.1	10.0	1.5	20.0
Vinyl chloride	Ave	0.2982	0.3039		10.2	10.0	1.9	20.0
Bromomethane	Ave	0.3205	0.3127		9.76	10.0	-2.4	20.0
Chloroethane	Ave	0.2042	0.2013		9.86	10.0	-1.4	20.0
Dichlorofluoromethane	Ave	0.8196	0.7692		9.39	10.0	-6.1	20.0
Trichlorofluoromethane	Ave	0.7058	0.6866		9.73	10.0	-2.7	20.0
Ethyl ether	Ave	0.1351	0.1283		9.50	10.0	-5.0	20.0
Acrolein	Ave	0.0080	0.0091		113	100	12.9	20.0
1,1-Dichloroethene	Ave	0.3295	0.3127		9.49	10.0	-5.1	20.0
Acetone	Ave	0.0151	0.0139		36.9	40.0	-7.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.4956	0.4925		9.94	10.0	-0.6	20.0
Iodomethane	Ave	0.8624	0.8818		10.2	10.0	2.3	20.0
Carbon disulfide	Ave	1.122	1.099		9.79	10.0	-2.1	20.0
3-Chloro-1-propene	Ave	0.4854	0.4236		8.73	10.0	-12.7	20.0
Methyl acetate	Ave	0.0675	0.0604		44.7	50.0	-10.5	20.0
Methylene Chloride	Ave	0.2812	0.2593		9.22	10.0	-7.8	20.0
tert-Butyl alcohol	Lin		0.6453		91.5	100	-8.5	20.0
Acrylonitrile	Ave	0.0217	0.0203		93.3	100	-6.7	20.0
trans-1,2-Dichloroethene	Ave	0.3561	0.3501		9.83	10.0	-1.7	20.0
Methyl tert-butyl ether	Ave	0.5076	0.4586		9.03	10.0	-9.7	20.0
Hexane	Ave	2.105	2.020		9.59	10.0	-4.1	20.0
1,1-Dichloroethane	Ave	0.6317	0.5869	0.1000	9.29	10.0	-7.1	20.0
Vinyl acetate	Ave	0.3050	0.3240		21.2	20.0	6.2	20.0
2-Butanone (MEK)	Ave	0.0367	0.0328		35.7	40.0	-10.8	20.0
cis-1,2-Dichloroethene	Ave	0.3510	0.3331		9.49	10.0	-5.1	20.0
2,2-Dichloropropane	Lin1		0.5867		10.7	10.0	6.6	20.0
sec-Butyl Alcohol	Ave	0.7889	0.7843		298	300	-0.6	20.0
Bromochloromethane	Ave	0.1690	0.1686		9.98	10.0	-0.2	20.0
Chloroform	Ave	0.6242	0.5911		9.47	10.0	-5.3	20.0
Tetrahydrofuran	Ave	0.0244	0.0212		17.3	20.0	-13.3	20.0
1,1,1-Trichloroethane	Ave	0.6197	0.5809		9.37	10.0	-6.3	20.0
Cyclohexane	Ave	0.5690	0.5295		9.31	10.0	-6.9	20.0
1,1-Dichloropropene	Ave	0.5108	0.5323		10.4	10.0	4.2	20.0
Carbon tetrachloride	Ave	0.6149	0.6180		10.1	10.0	0.5	20.0
Isobutyl alcohol	Ave	0.2606	0.2780		267	250	6.7	20.0
1,2-Dichloroethane	Ave	0.2473	0.2272		9.19	10.0	-8.1	20.0
Benzene	Ave	0.9810	0.9223		9.40	10.0	-6.0	20.0
Trichloroethene	Ave	0.4276	0.4173		9.76	10.0	-2.4	20.0
2-Pentanone	Ave	0.0793	0.0755		38.1	40.0	-4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-277378/16 Calibration Date: 05/14/2015 11:21

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7578.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3382	0.3209		9.49	10.0	-5.1	20.0
Methylcyclohexane	Ave	0.4844	0.4561		9.42	10.0	-5.8	20.0
Dibromomethane	Ave	0.1890	0.1798		9.51	10.0	-4.9	20.0
Bromodichloromethane	Ave	0.5342	0.4983		9.33	10.0	-6.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1070	0.1097		10.3	10.0	2.5	20.0
cis-1,3-Dichloropropene	Ave	1.785	1.854		10.4	10.0	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1114	0.1054		37.8	40.0	-5.4	20.0
Toluene	Ave	1.047	1.044		9.98	10.0	-0.2	20.0
trans-1,3-Dichloropropene	Ave	0.2994	0.3248		10.8	10.0	8.5	20.0
Ethyl methacrylate	Ave	1.006	0.9676		9.62	10.0	-3.8	20.0
1,1,2-Trichloroethane	Ave	0.1881	0.1818		9.67	10.0	-3.3	20.0
1,3-Dichloropropane	Ave	1.288	1.289		10.0	10.0	0.0	20.0
Tetrachloroethene	Ave	1.578	1.760		11.2	10.0	11.5	20.0
2-Hexanone	Ave	0.2986	0.2804		37.6	40.0	-6.1	20.0
Chlorodibromomethane	Ave	1.545	1.651		10.7	10.0	6.8	20.0
1,2-Dibromoethane	Ave	1.021	1.055		10.3	10.0	3.3	20.0
1-Chlorohexane	Ave	2.012	2.147		10.7	10.0	6.7	20.0
Chlorobenzene	Ave	3.064	3.183	0.3000	10.4	10.0	3.9	20.0
1,1,1,2-Tetrachloroethane	Ave	1.522	1.635		10.7	10.0	7.4	20.0
Ethylbenzene	Ave	1.507	1.555		10.3	10.0	3.2	20.0
m-Xylene & p-Xylene	Ave	1.996	2.109		10.6	10.0	5.7	20.0
o-Xylene	Ave	1.732	1.823		10.5	10.0	5.2	20.0
Styrene	Ave	2.743	2.888		10.5	10.0	5.3	20.0
Bromoform	Ave	0.8142	0.8745	0.1000	10.7	10.0	7.4	20.0
Isopropylbenzene	Ave	3.243	3.251		10.0	10.0	0.3	20.0
Cyclohexanone	Lin1		0.0119		395	400	-1.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5910	0.5749	0.3000	9.73	10.0	-2.7	20.0
Bromobenzene	Ave	0.8591	0.8913		10.4	10.0	3.7	20.0
1,2,3-Trichloropropane	Ave	0.1359	0.1363		10.0	10.0	0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1050	0.1151		11.0	10.0	9.6	20.0
N-Propylbenzene	Ave	0.8699	0.9060		10.4	10.0	4.1	20.0
2-Chlorotoluene	Ave	0.7341	0.7462		10.2	10.0	1.7	20.0
4-Chlorotoluene	Ave	0.8332	0.9147		11.0	10.0	9.8	20.0
1,3,5-Trimethylbenzene	Ave	2.513	2.480		9.87	10.0	-1.3	20.0
tert-Butylbenzene	Ave	2.922	2.961		10.1	10.0	1.3	20.0
1,2,4-Trimethylbenzene	Ave	2.432	2.397		9.86	10.0	-1.4	20.0
sec-Butylbenzene	Ave	0.7850	0.8269		10.5	10.0	5.3	20.0
1,3-Dichlorobenzene	Ave	1.468	1.529		10.4	10.0	4.2	20.0
p-Isopropyltoluene	Ave	3.314	3.318		10.0	10.0	0.1	20.0
1,4-Dichlorobenzene	Ave	1.760	1.841		10.5	10.0	4.6	20.0
1,2-Dichlorobenzene	Ave	1.283	1.329		10.4	10.0	3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-277378/16 Calibration Date: 05/14/2015 11:21

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7578.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	2.848	2.911		10.2	10.0	2.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0982	0.1070		10.9	10.0	9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.8943	0.9916		11.1	10.0	10.9	20.0
Hexachlorobutadiene	Ave	0.8679	1.005		11.6	10.0	15.8	20.0
Naphthalene	Ave	0.8574	0.9224		10.8	10.0	7.6	20.0
1,2,3-Trichlorobenzene	Ave	0.6829	0.7442		10.9	10.0	9.0	20.0
Dibromofluoromethane (Surr)	Ave	0.5901	0.5580		9.46	10.0	-5.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2560	0.2286		8.93	10.0	-10.7	20.0
Toluene-d8 (Surr)	Ave	4.182	4.215		10.1	10.0	0.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.327	1.284		9.68	10.0	-3.2	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 14-May-2015 11:21:30 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: moanm Instrument ID: VMS_Z
Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 14-May-2015 14:33:07 Calib Date: 14-May-2015 10:35:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: moanm Date: 14-May-2015 11:55:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.490	3.489	0.001	9	120219	250.0	250.0	
* 2 Fluorobenzene	96	6.378	6.377	0.001	94	729435	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.024	11.023	0.001	85	172126	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.112	0.001	75	307598	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.474	5.473	0.002	57	325595	10.0	9.46	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.891	5.908	-0.017	91	133382	10.0	8.93	
$ 10 Toluene-d8 (Surr)	98	8.693	8.692	0.001	90	580415	10.0	10.1	
$ 11 4-Bromofluorobenzene (Surr	95	13.043	13.059	-0.016	84	316025	10.0	9.68	
27 Dichlorodifluoromethane	85	1.906	1.923	-0.017	98	311846	10.0	11.2	
30 Chloromethane	50	1.993	1.992	0.001	99	182982	10.0	10.1	M
31 Butadiene	54	2.080	2.097	-0.017	91	122218	NC	NC	
32 Vinyl chloride	62	2.115	2.114	0.001	81	177366	10.0	10.2	
35 Bromomethane	94	2.341	2.340	0.001	88	182455	10.0	9.76	
36 Chloroethane	64	2.394	2.393	0.001	83	117469	10.0	9.86	
37 Dichlorofluoromethane	67	2.550	2.549	0.001	92	448879	10.0	9.39	
38 Trichlorofluoromethane	101	2.602	2.601	0.001	98	400657	10.0	9.73	
40 Ethyl ether	59	2.794	2.810	-0.016	86	74892	10.0	9.50	
44 Acrolein	56	2.916	2.915	0.001	62	52776	100.0	112.9	
48 Acetone	43	3.055	3.036	0.019	11	32500	40.0	36.9	
45 1,1-Dichloroethene	96	3.037	3.036	0.001	94	182479	10.0	9.49	
46 1,1,2-Trichloro-1,2,2-trif	151	3.090	3.089	0.001	85	287406	10.0	9.94	
49 Iodomethane	142	3.194	3.193	0.001	98	514567	10.0	10.2	
50 Carbon disulfide	76	3.281	3.280	0.001	98	641551	10.0	9.79	
52 3-Chloro-1-propene	41	3.351	3.350	0.001	81	247192	10.0	8.73	
51 Methyl acetate	43	3.351	3.350	0.001	70	176288	50.0	44.7	
54 Methylene Chloride	84	3.472	3.471	0.001	86	151288	10.0	9.22	
55 2-Methyl-2-propanol	59	3.577	3.558	0.019	6	31030	100.0	91.5	M
58 Acrylonitrile	53	3.681	3.680	0.001	97	118329	100.0	93.3	
57 trans-1,2-Dichloroethene	96	3.768	3.767	0.001	95	204301	10.0	9.83	
56 Methyl tert-butyl ether	73	3.786	3.785	0.001	55	267584	10.0	9.03	
59 Hexane	57	4.064	4.063	0.001	90	278106	10.0	9.59	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.203	4.202	0.001	96	342474	10.0	9.29	
61 Vinyl acetate	43	4.221	4.220	0.001	64	378131	20.0	21.2	
67 2-Butanone (MEK)	43	4.865	4.881	-0.017	38	76525	40.0	35.7	
65 cis-1,2-Dichloroethene	96	4.882	4.881	0.001	74	194362	10.0	9.49	
66 2,2-Dichloropropane	77	4.899	4.898	0.001	69	342364	10.0	10.7	
70 sec-Butyl Alcohol	45	5.108	5.107	0.001	51	113138	300.0	298.2	
71 Chlorobromomethane	128	5.178	5.177	0.001	69	98397	10.0	9.98	
72 Tetrahydrofuran	42	5.265	5.264	0.001	31	24694	20.0	17.3	
74 Chloroform	83	5.265	5.264	0.001	91	344935	10.0	9.47	
75 1,1,1-Trichloroethane	97	5.543	5.542	0.001	88	338993	10.0	9.37	
76 Cyclohexane	56	5.648	5.647	0.002	88	308989	10.0	9.31	
78 1,1-Dichloropropene	75	5.735	5.751	-0.016	82	310594	10.0	10.4	
77 Carbon tetrachloride	117	5.787	5.786	0.001	78	360641	10.0	10.1	
80 Isobutyl alcohol	41	5.874	5.873	0.001	24	33426	250.0	266.7	
82 1,2-Dichloroethane	62	5.996	5.995	0.001	44	132554	10.0	9.19	
81 Benzene	78	6.013	6.012	0.001	91	538183	10.0	9.40	
84 n-Heptane	43	6.396	6.395	0.001	67	325169	10.0	9.71	
85 Trichloroethene	95	6.900	6.899	0.001	84	243486	10.0	9.76	
89 2-Pentanone	43	7.144	7.143	0.001	84	176214	40.0	38.1	
90 1,2-Dichloropropane	63	7.196	7.195	0.001	76	187263	10.0	9.49	
87 Methylcyclohexane	55	7.214	7.213	0.001	85	266179	10.0	9.42	
92 Dibromomethane	93	7.370	7.369	0.001	83	104901	10.0	9.51	
94 Dichlorobromomethane	83	7.596	7.595	0.001	95	290786	10.0	9.33	
96 2-Chloroethyl vinyl ether	63	8.049	8.048	0.001	80	64009	10.0	10.3	
97 cis-1,3-Dichloropropene	75	8.275	8.274	0.001	83	255296	10.0	10.4	
98 4-Methyl-2-pentanone (MIBK	43	8.519	8.518	0.001	61	245959	40.0	37.8	
99 Toluene	91	8.797	8.796	0.001	97	609507	10.0	9.98	
100 trans-1,3-Dichloropropene	75	9.128	9.127	0.001	90	189510	10.0	10.8	
101 Ethyl methacrylate	69	9.319	9.318	0.001	72	133232	10.0	9.62	
102 1,1,2-Trichloroethane	97	9.406	9.405	0.001	75	106097	10.0	9.67	
104 1,3-Dichloropropane	76	9.667	9.666	0.001	70	177451	10.0	10.0	
103 Tetrachloroethene	164	9.684	9.701	-0.017	97	242337	10.0	11.2	
105 2-Hexanone	43	9.841	9.840	0.001	74	154458	40.0	37.6	
107 Chlorodibromomethane	129	10.050	10.049	0.001	88	227372	10.0	10.7	
109 Ethylene Dibromide	107	10.224	10.223	0.001	77	145268	10.0	10.3	
111 Chlorobenzene	112	11.059	11.058	0.001	91	438234	10.0	10.4	
110 1-Chlorohexane	91	11.059	11.058	0.001	77	295692	10.0	10.7	
113 1,1,1,2-Tetrachloroethane	131	11.216	11.215	0.001	72	225100	10.0	10.7	
112 Ethylbenzene	106	11.268	11.267	0.001	95	214183	10.0	10.3	
114 m-Xylene & p-Xylene	106	11.477	11.476	0.001	98	290438	10.0	10.6	
115 o-Xylene	106	12.155	12.154	0.001	89	250965	10.0	10.5	
116 Styrene	104	12.173	12.172	0.001	88	397649	10.0	10.5	
117 Bromoform	173	12.451	12.450	0.001	95	120417	10.0	10.7	
118 Isopropylbenzene	105	12.817	12.816	0.001	87	800049	10.0	10.0	
119 Cyclohexanone	55	12.938	12.937	0.001	74	65725	400.0	395.0	
121 Bromobenzene	156	13.304	13.303	0.001	87	219329	10.0	10.4	
122 1,1,2,2-Tetrachloroethane	83	13.304	13.320	-0.016	53	141457	10.0	9.73	
124 1,2,3-Trichloropropane	110	13.373	13.372	0.001	55	33535	10.0	10.0	
125 trans-1,4-Dichloro-2-buten	53	13.408	13.425	-0.017	1	28327	10.0	11.0	
123 N-Propylbenzene	120	13.547	13.546	0.001	87	222943	10.0	10.4	
126 2-Chlorotoluene	126	13.652	13.668	-0.016	93	183632	10.0	10.2	a
128 4-Chlorotoluene	126	13.861	13.860	0.001	81	225096	10.0	11.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.878	13.877	0.001	91	610263	10.0	9.87	
129 tert-Butylbenzene	119	14.435	14.451	-0.016	87	728571	10.0	10.1	
130 1,2,4-Trimethylbenzene	105	14.539	14.538	0.001	94	589874	10.0	9.86	
131 sec-Butylbenzene	134	14.852	14.851	0.001	79	203479	10.0	10.5	
132 1,3-Dichlorobenzene	146	14.992	15.008	-0.016	71	376310	10.0	10.4	
133 4-Isopropyltoluene	119	15.131	15.130	0.001	90	816522	10.0	10.0	
134 1,4-Dichlorobenzene	146	15.166	15.165	0.001	81	453083	10.0	10.5	
138 1,2-Dichlorobenzene	146	15.810	15.808	0.002	80	326943	10.0	10.4	
137 n-Butylbenzene	91	15.844	15.843	0.001	93	716236	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	16.923	16.940	-0.017	69	26329	10.0	10.9	
141 1,2,4-Trichlorobenzene	180	17.863	17.862	0.001	94	244009	10.0	11.1	
142 Hexachlorobutadiene	225	18.072	18.071	0.001	94	247355	10.0	11.6	
143 Naphthalene	128	18.089	18.088	0.001	95	226977	10.0	10.8	
144 1,2,3-Trichlorobenzene	180	18.350	18.349	0.001	91	183137	10.0	10.9	
93 1,4-Dioxane	88		18.432				ND	ND	
S 149 Trihalomethanes, Total	1				0		40.0	40.2	
S 150 Xylenes, Total (URS)	1				0		20.0	21.1	
S 148 1,3-Dichloropropene, Total	1				0		20.0	21.2	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.3	
S 146 Xylenes, Total	106				0		20.0	21.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.3	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

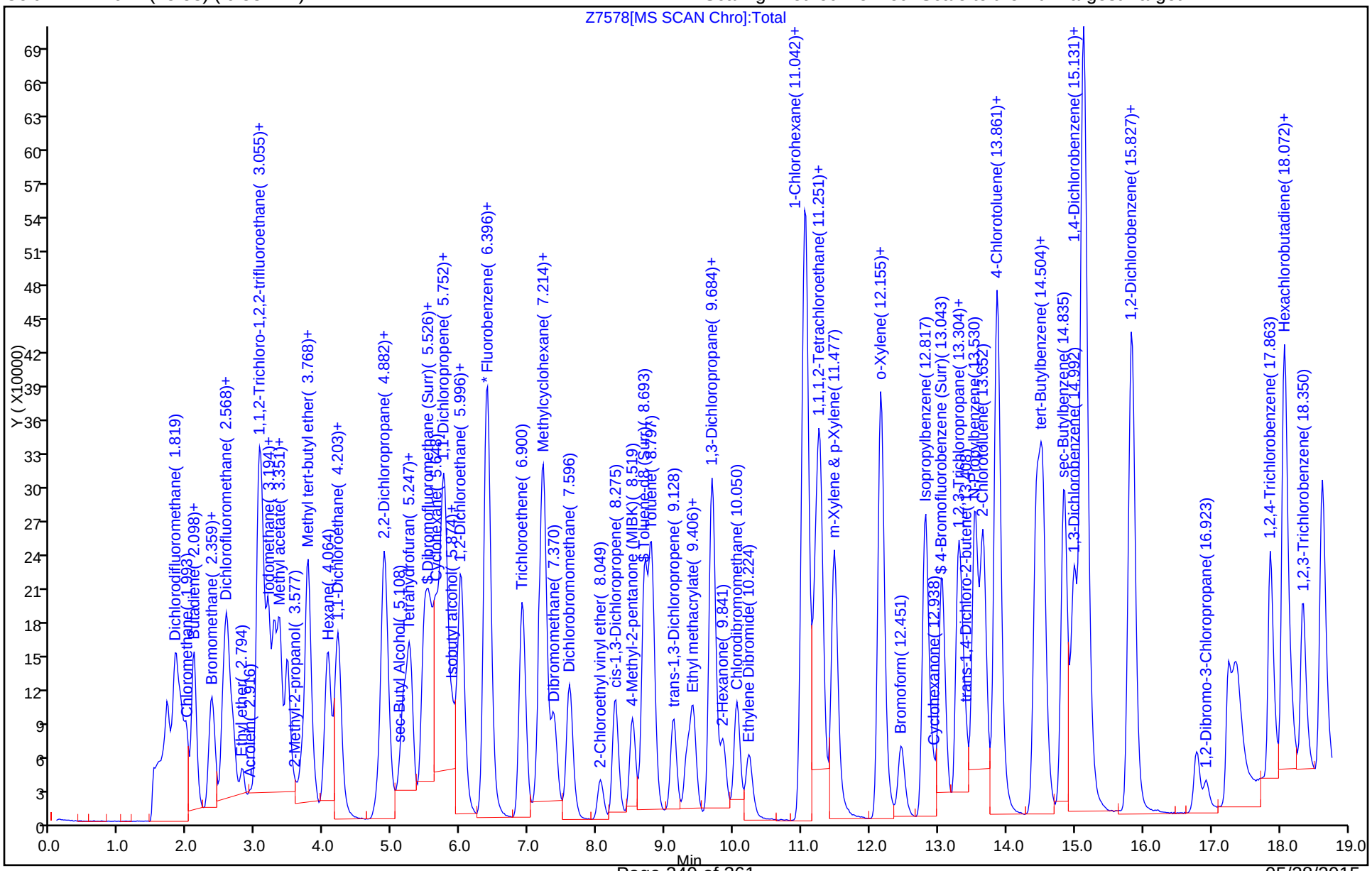
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main B_00009	Amount Added:	5.00	Units: uL
MV-Gas/Ket B_00019	Amount Added:	5.00	Units: uL
MV-SS 2-Cleve_00020	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00042	Amount Added:	0.80	Units: uL

Report Date: 14-May-2015 14:33:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D				
Injection Date:	14-May-2015 11:21:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icv			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

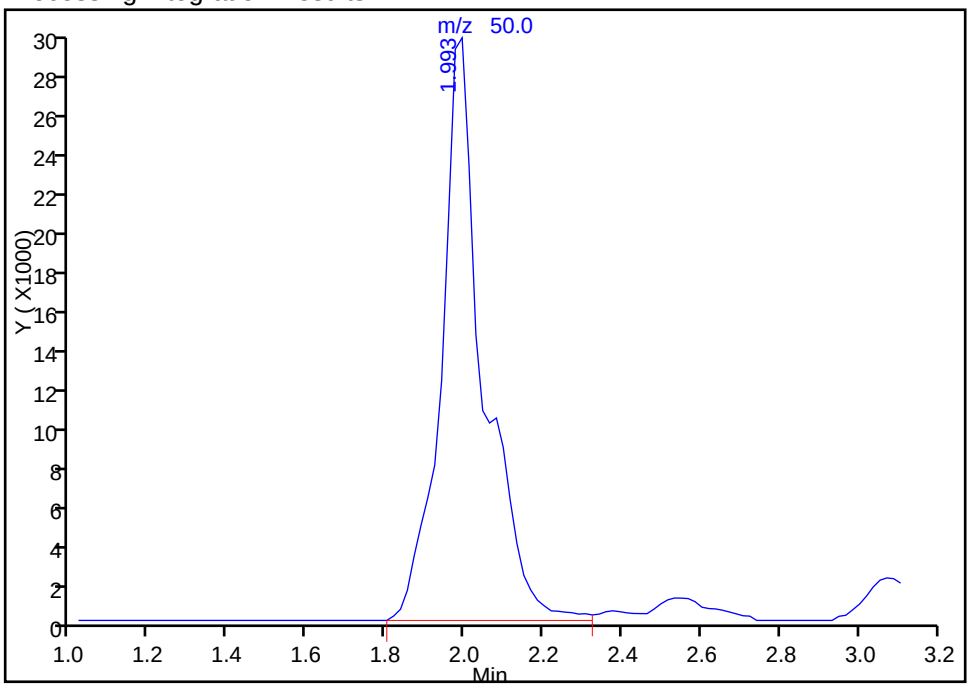
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D				
Injection Date:	14-May-2015 11:21:30	Instrument ID:	VMS_Z		
Lims ID:	icv				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

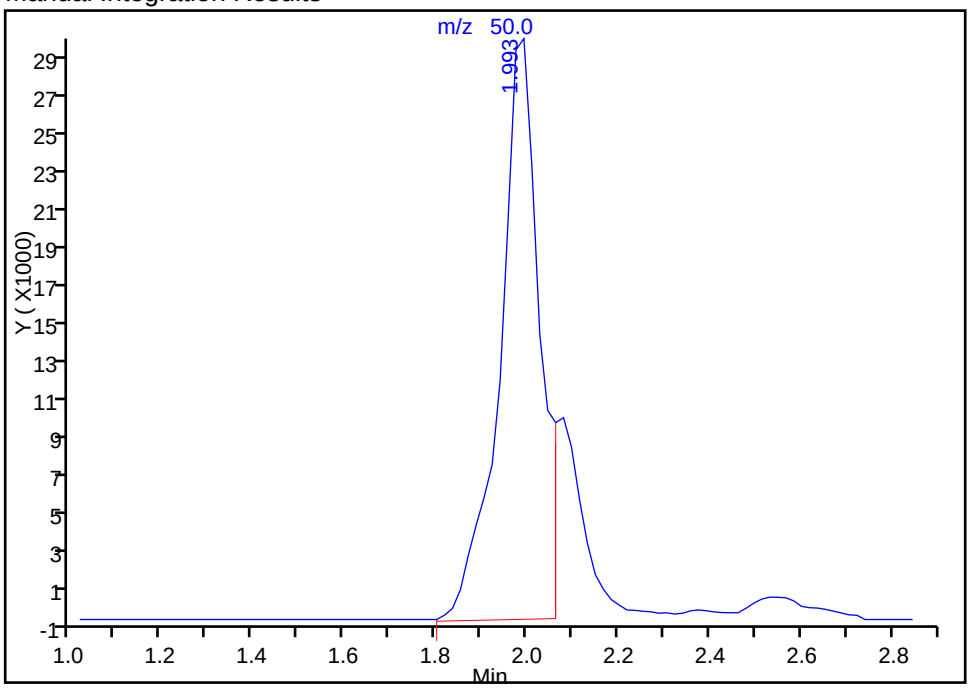
Processing Integration Results

RT: 1.99
Area: 221913
Amount: 12.407711
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 182982
Amount: 10.149474
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:08:33
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

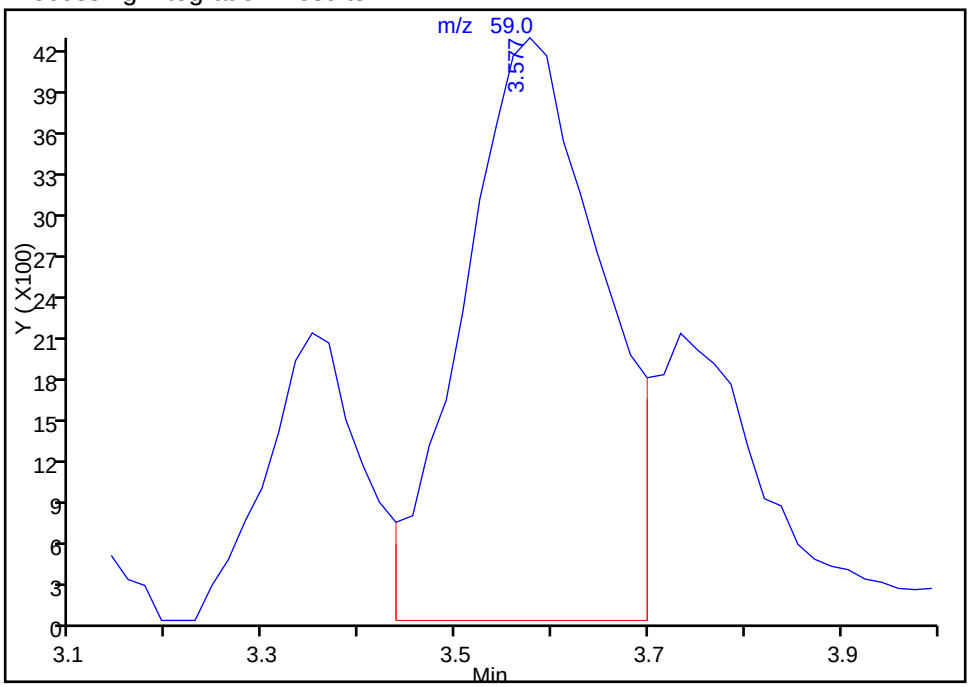
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D				
Injection Date:	14-May-2015 11:21:30	Instrument ID:	VMS_Z		
Lims ID:	icv				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

55 2-Methyl-2-propanol, CAS: 75-65-0

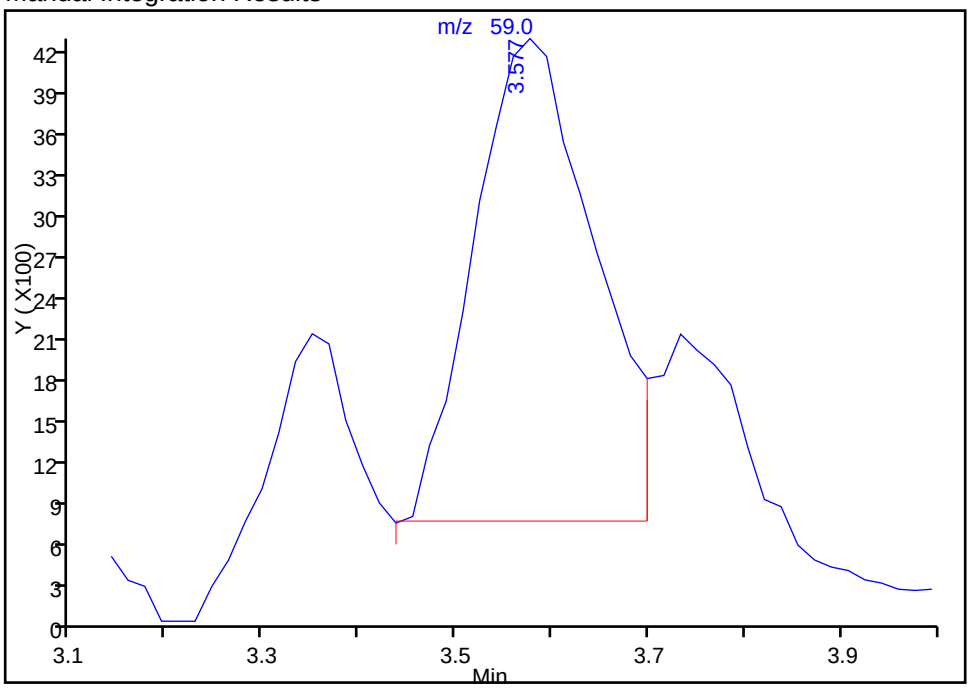
Processing Integration Results

RT: 3.58
Area: 43357
Amount: 135.5364
Amount Units: ug/l



Manual Integration Results

RT: 3.58
Area: 31030
Amount: 91.483136
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:08:33
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

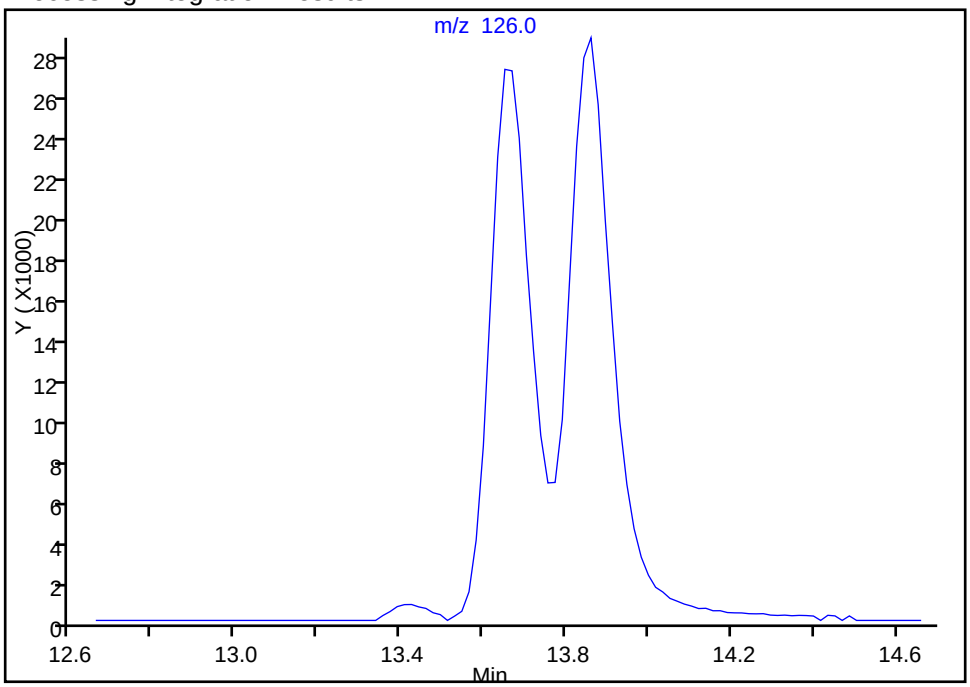
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7578.D				
Injection Date:	14-May-2015 11:21:30	Instrument ID:	VMS_Z		
Lims ID:	icv				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

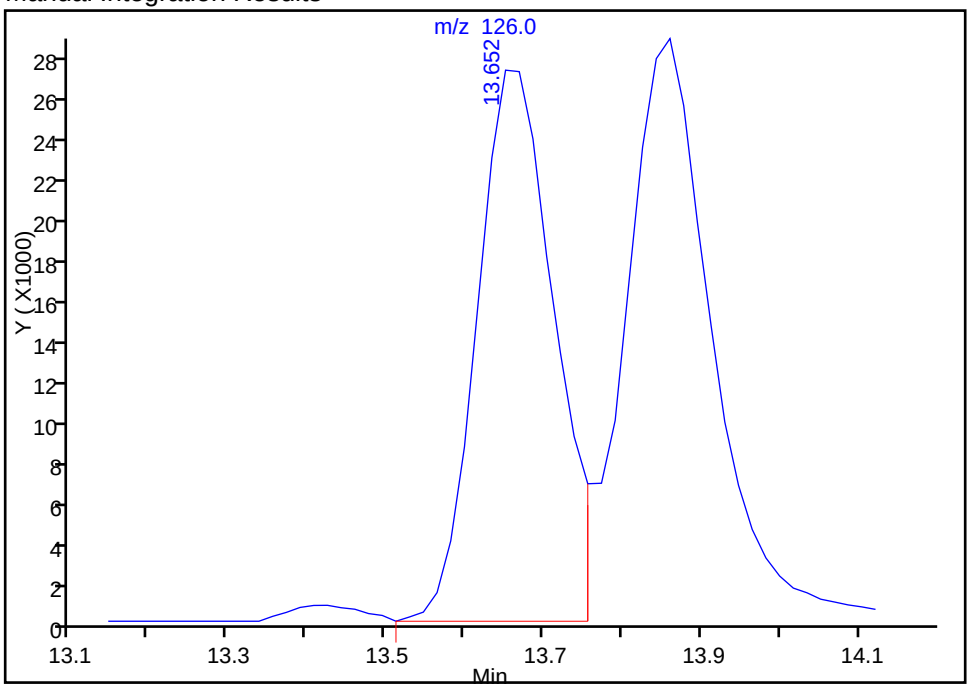
Not Detected
Expected RT: 13.67

Processing Integration Results



Manual Integration Results

RT: 13.65
Area: 183632
Amount: 10.165296
Amount Units: ug/l



Reviewer: moanm, 14-May-2015 12:08:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: ICV 280-277857/16 Calibration Date: 05/18/2015 12:32

Instrument ID: VMS_Z Calib Start Date: 05/18/2015 10:39

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/18/2015 12:10

Lab File ID: Z7662.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.6023	0.5786		9.61	10.0	-3.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2298	0.2205		9.60	10.0	-4.0	20.0
Toluene-d8 (Surr)	Ave	4.221	3.932		9.31	10.0	-6.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.376	1.312		9.54	10.0	-4.6	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7662.D				
Lims ID:	icv				
Client ID:					
Sample Type:	ICV				
Inject. Date:	18-May-2015 12:32:30	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	icv				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Sublist:					

Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m		
Limit Group:	MSV - 8260B Water and Solid		
Last Update:	18-May-2015 14:30:55	Calib Date:	18-May-2015 12:10:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D		

Column 1 :	DB-624 (75.53) (0.53 mm)	Det: MS SCAN
Process Host:	XAWRK029	

First Level Reviewer: moanm Date: 18-May-2015 14:33:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.487	-0.003	90	115458	250.0	250.0	
* 2 Fluorobenzene	96	6.373	6.376	-0.003	98	623681	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.001	11.004	-0.003	85	162243	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.108	15.111	-0.003	95	277648	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.450	5.451	-0.001	94	288678	10.0	9.61	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.885	5.886	-0.001	94	110026	10.0	9.60	
$ 10 Toluene-d8 (Surr)	98	8.687	8.688	-0.001	92	510289	10.0	9.31	
$ 11 4-Bromofluorobenzene (Surr	95	13.037	13.038	-0.001	91	291471	10.0	9.54	

Reagents:

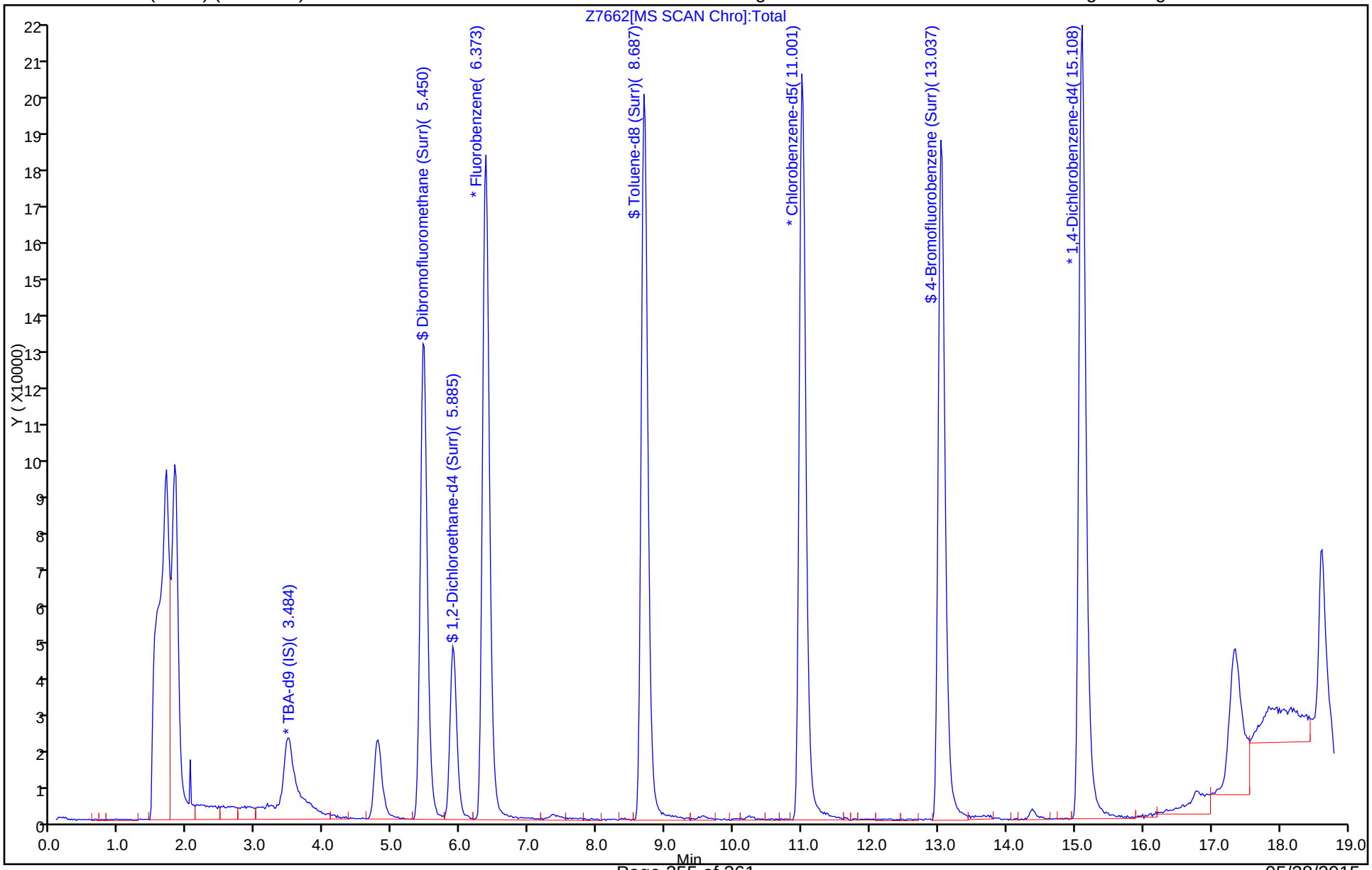
MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.80	Units: uL

Report Date: 18-May-2015 14:33:14 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7662.D				
Injection Date:	18-May-2015 12:32:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	icv			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/2 Calibration Date: 05/19/2015 06:53

Instrument ID: VMS_Z Calib Start Date: 04/06/2015 23:25

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/07/2015 01:41

Lab File ID: Z7712.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2				160	200	-100.0*	20.0

FORM VII 8260B

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7712.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 06:53:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub65

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:12 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 07:19:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.489	3.489	0.000	86	114189	250.0	250.0	
* 2 Fluorobenzene	96	6.395	6.395	0.000	98	601427	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.041	11.041	0.000	86	152466	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.147	15.147	0.000	94	284612	12.5	12.5	
27 Dichlorodifluoromethane	85	1.905	1.905	0.000	98	250731	10.0	11.0	
30 Chloromethane	50	1.975	1.975	0.000	99	139772	10.0	9.40	M
31 Butadiene	54	2.079	2.079	0.000	84	104346	NC	NC	
32 Vinyl chloride	62	2.097	2.097	0.000	98	152246	10.0	10.6	
35 Bromomethane	94	2.340	2.340	0.000	89	166421	10.0	10.8	
36 Chloroethane	64	2.393	2.393	0.000	98	105723	10.0	10.8	
37 Dichlorofluoromethane	67	2.532	2.532	0.000	97	389670	10.0	9.88	
38 Trichlorofluoromethane	101	2.601	2.601	0.000	99	352919	10.0	10.4	
40 Ethyl ether	59	2.793	2.793	0.000	90	63785	10.0	9.81	
44 Acrolein	56	2.915	2.915	0.000	98	37293	100.0	96.8	
45 1,1-Dichloroethene	96	3.036	3.036	0.000	99	167193	10.0	10.5	
48 Acetone	43	3.036	3.036	0.000	30	32353	40.0	44.6	
46 1,1,2-Trichloro-1,2,2-trif	151	3.089	3.089	0.000	95	271308	10.0	11.4	
49 Iodomethane	142	3.193	3.193	0.000	98	437921	10.0	10.6	
50 Carbon disulfide	76	3.263	3.263	0.000	98	578572	10.0	10.7	
52 3-Chloro-1-propene	41	3.350	3.350	0.000	85	232519	10.0	9.96	
51 Methyl acetate	43	3.350	3.350	0.000	68	157521	50.0	48.5	
54 Methylene Chloride	84	3.472	3.472	0.000	90	143468	10.0	10.6	
55 2-Methyl-2-propanol	59	3.576	3.576	0.000	93	29442	100.0	91.4	
58 Acrylonitrile	53	3.680	3.680	0.000	98	103401	100.0	98.9	
57 trans-1,2-Dichloroethene	96	3.767	3.767	0.000	100	180797	10.0	10.6	
56 Methyl tert-butyl ether	73	3.785	3.785	0.000	93	239780	10.0	9.82	
59 Hexane	57	4.063	4.063	0.000	91	232743	10.0	9.06	
62 1,1-Dichloroethane	63	4.202	4.202	0.000	95	289021	10.0	9.51	
61 Vinyl acetate	43	4.220	4.220	0.000	96	272682	20.0	18.6	
65 cis-1,2-Dichloroethene	96	4.881	4.881	0.000	83	164837	10.0	9.76	
67 2-Butanone (MEK)	43	4.881	4.881	0.000	42	68927	40.0	39.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.898	4.898	0.000	87	304131	10.0	11.6	
70 sec-Butyl Alcohol	45	5.107	5.107	0.000	95	98621	300.0	273.7	
71 Chlorobromomethane	128	5.177	5.177	0.000	87	85975	10.0	10.6	
74 Chloroform	83	5.264	5.264	0.000	93	303594	10.0	10.1	
72 Tetrahydrofuran	42	5.281	5.281	0.000	36	19444	20.0	16.6	
75 1,1,1-Trichloroethane	97	5.560	5.560	0.000	99	292722	10.0	9.82	
76 Cyclohexane	56	5.647	5.647	0.000	87	251868	10.0	9.20	
78 1,1-Dichloropropene	75	5.751	5.751	0.000	99	243813	10.0	9.92	
77 Carbon tetrachloride	117	5.786	5.786	0.000	97	300760	10.0	10.2	
80 Isobutyl alcohol	41	5.873	5.873	0.000	94	26038	250.0	218.7	
82 1,2-Dichloroethane	62	6.012	6.012	0.000	94	112504	10.0	9.46	
81 Benzene	78	6.012	6.012	0.000	94	479268	10.0	10.2	
84 n-Heptane	43	6.412	6.412	0.000	90	269728	10.0	9.77	
85 Trichloroethene	95	6.917	6.917	0.000	94	203799	10.0	9.91	
89 2-Pentanone	43	7.160	7.160	0.000	99	141629	40.0	37.1	
90 1,2-Dichloropropane	63	7.213	7.213	0.000	96	153621	10.0	9.44	
87 Methylcyclohexane	55	7.230	7.230	0.000	91	222178	10.0	9.53	
92 Dibromomethane	93	7.387	7.387	0.000	93	89135	10.0	9.80	
94 Dichlorobromomethane	83	7.613	7.613	0.000	100	253786	10.0	9.87	
96 2-Chloroethyl vinyl ether	63	8.065	8.065	0.000	92	48828	10.0	9.48	
97 cis-1,3-Dichloropropene	75	8.291	8.291	0.000	97	207742	10.0	9.54	
98 4-Methyl-2-pentanone (MIBK	43	8.535	8.535	0.000	96	215454	40.0	40.2	
99 Toluene	91	8.831	8.831	0.000	99	514038	10.0	10.2	
100 trans-1,3-Dichloropropene	75	9.144	9.144	0.000	91	144795	10.0	10.1	
101 Ethyl methacrylate	69	9.353	9.353	0.000	87	110527	10.0	9.01	
102 1,1,2-Trichloroethane	97	9.423	9.423	0.000	89	89771	10.0	9.92	
104 1,3-Dichloropropane	76	9.701	9.701	0.000	88	150646	10.0	9.59	
103 Tetrachloroethene	164	9.718	9.718	0.000	97	208164	10.0	10.8	
105 2-Hexanone	43	9.875	9.875	0.000	95	135206	40.0	37.1	
107 Chlorodibromomethane	129	10.084	10.084	0.000	89	195878	10.0	10.4	
109 Ethylene Dibromide	107	10.258	10.258	0.000	98	120442	10.0	9.67	
110 1-Chlorohexane	91	11.093	11.093	0.000	77	247390	10.0	10.1	
111 Chlorobenzene	112	11.093	11.093	0.000	92	374825	10.0	10.0	
113 1,1,1,2-Tetrachloroethane	131	11.232	11.232	0.000	93	194233	10.0	10.5	
112 Ethylbenzene	106	11.302	11.302	0.000	98	180338	10.0	9.81	
114 m-Xylene & p-Xylene	106	11.511	11.511	0.000	99	243650	10.0	10.0	
115 o-Xylene	106	12.172	12.172	0.000	97	213866	10.0	10.1	
116 Styrene	104	12.207	12.207	0.000	94	342758	10.0	10.2	
117 Bromoform	173	12.485	12.485	0.000	97	103461	10.0	10.4	
118 Isopropylbenzene	105	12.833	12.833	0.000	96	664276	10.0	9.00	
119 Cyclohexanone	55	12.955	12.955	0.000	91	60721	400.0	412.4	
121 Bromobenzene	156	13.320	13.320	0.000	94	188331	10.0	9.63	
122 1,1,2,2-Tetrachloroethane	83	13.338	13.338	0.000	95	119702	10.0	8.89	
124 1,2,3-Trichloropropane	110	13.407	13.407	0.000	81	27687	10.0	8.95	
125 trans-1,4-Dichloro-2-buten	53	13.459	13.459	0.000	74	22974	10.0	9.61	
123 N-Propylbenzene	120	13.564	13.564	0.000	98	190162	10.0	9.60	
126 2-Chlorotoluene	126	13.686	13.686	0.000	70	161890	10.0	9.69	a
128 4-Chlorotoluene	126	13.877	13.877	0.000	98	193910	10.0	10.2	
127 1,3,5-Trimethylbenzene	105	13.895	13.895	0.000	96	525004	10.0	9.18	
129 tert-Butylbenzene	119	14.469	14.469	0.000	94	626582	10.0	9.42	
130 1,2,4-Trimethylbenzene	105	14.556	14.556	0.000	95	510649	10.0	9.22	
131 sec-Butylbenzene	134	14.869	14.869	0.000	93	182158	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	15.026	15.026	0.000	96	340871	10.0	10.2	
133 4-Isopropyltoluene	119	15.147	15.147	0.000	97	733871	10.0	9.73	
134 1,4-Dichlorobenzene	146	15.182	15.182	0.000	95	403721	10.0	10.1	
138 1,2-Dichlorobenzene	146	15.843	15.843	0.000	98	294689	10.0	10.1	
137 n-Butylbenzene	91	15.878	15.878	0.000	96	625072	10.0	9.64	
139 1,2-Dibromo-3-Chloropropan	157	16.957	16.957	0.000	91	22579	10.0	10.1	
141 1,2,4-Trichlorobenzene	180	17.897	17.897	0.000	95	197881	10.0	9.72	
142 Hexachlorobutadiene	225	18.088	18.088	0.000	97	200449	10.0	10.1	
143 Naphthalene	128	18.123	18.123	0.000	96	183668	10.0	9.41	
144 1,2,3-Trichlorobenzene	180	18.366	18.366	0.000	96	147550	10.0	9.49	
93 1,4-Dioxane	88		18.432				ND	ND	
S 145 1,2-Dichloroethene, Total	1				0		20.0	20.3	
S 146 Xylenes, Total	106				0		20.0	20.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	20.3	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 149 Trihalomethanes, Total	1				0		40.0	40.8	
S 150 Xylenes, Total (URS)	1				0		20.0	20.1	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

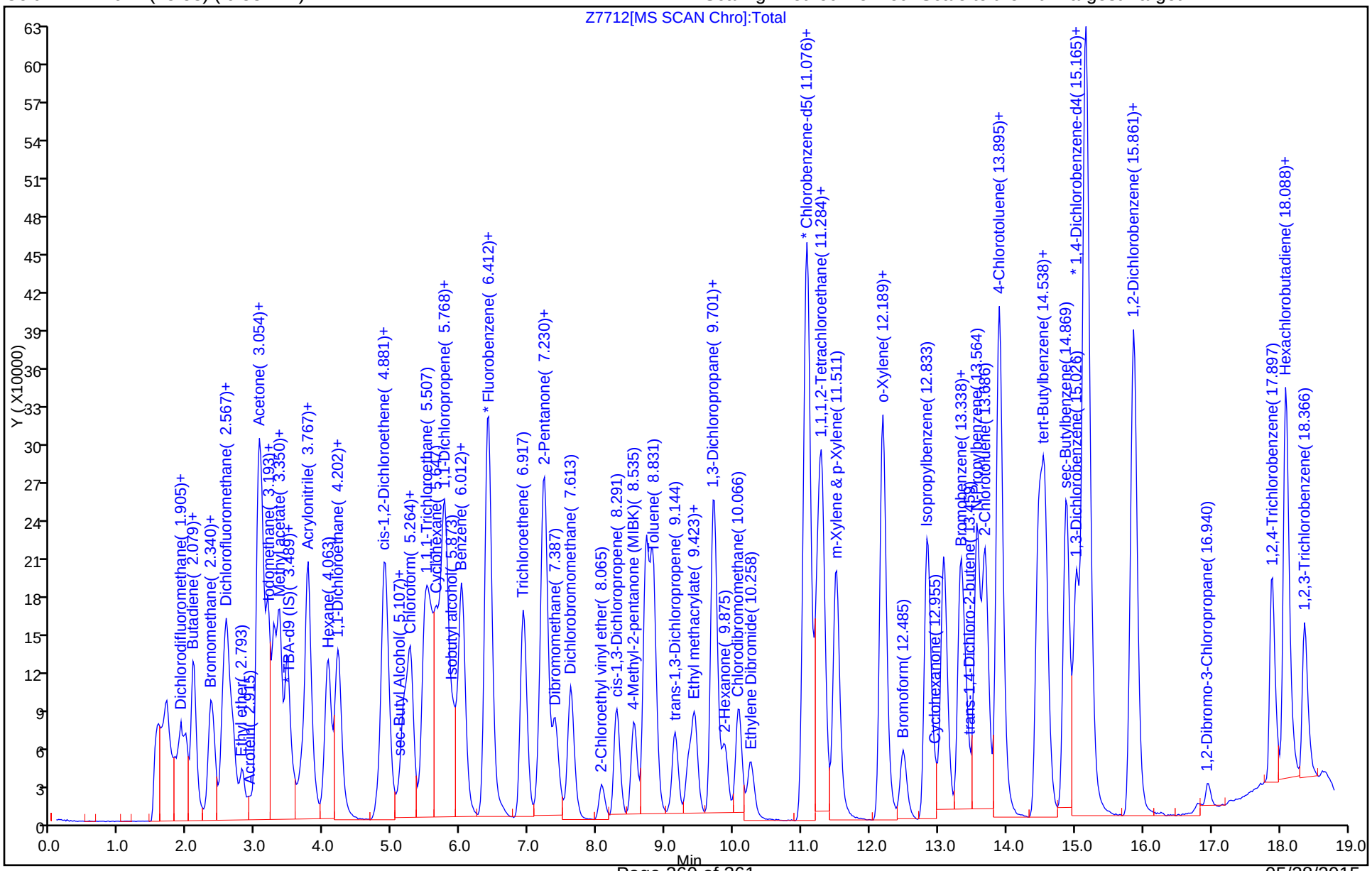
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added:	5.00	Units: uL
MV-2cleve+AVA_00009	Amount Added:	5.00	Units: uL

Report Date: 19-May-2015 11:10:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7712.D				
Injection Date:	19-May-2015 06:53:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/2 Calibration Date: 05/19/2015 06:53

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7712.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4755	0.5211		11.0	10.0	9.6	20.0
Chloromethane	Ave	0.3090	0.2905	0.1000	9.40	10.0	-6.0	20.0
Vinyl chloride	Ave	0.2982	0.3164		10.6	10.0	6.1	20.0
Bromomethane	Ave	0.3205	0.3459		10.8	10.0	7.9	20.0
Chloroethane	Ave	0.2042	0.2197		10.8	10.0	7.6	20.0
Dichlorofluoromethane	Ave	0.8196	0.8099		9.88	10.0	-1.2	20.0
Trichlorofluoromethane	Ave	0.7058	0.7335		10.4	10.0	3.9	20.0
Ethyl ether	Ave	0.1351	0.1326		9.81	10.0	-1.9	20.0
Acrolein	Ave	0.0080	0.0078		96.8	100	-3.2	20.0
1,1-Dichloroethene	Ave	0.3295	0.3475		10.5	10.0	5.5	20.0
Acetone	Ave	0.0151	0.0168		44.6	40.0	11.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.4956	0.5639		11.4	10.0	13.8	20.0
Iodomethane	Ave	0.8624	0.9102		10.6	10.0	5.5	20.0
Carbon disulfide	Ave	1.122	1.203		10.7	10.0	7.1	20.0
3-Chloro-1-propene	Ave	0.4854	0.4833		9.96	10.0	-0.4	20.0
Methyl acetate	Ave	0.0675	0.0655		48.5	50.0	-3.0	20.0
Methylene Chloride	Ave	0.2812	0.2982		10.6	10.0	6.0	20.0
tert-Butyl alcohol	Lin		0.6446		91.4	100	-8.6	20.0
Acrylonitrile	Ave	0.0217	0.0215		98.9	100	-1.1	20.0
trans-1,2-Dichloroethene	Ave	0.3561	0.3758		10.6	10.0	5.5	20.0
Methyl tert-butyl ether	Ave	0.5076	0.4984		9.82	10.0	-1.8	20.0
Hexane	Ave	2.105	1.908		9.06	10.0	-9.4	20.0
1,1-Dichloroethane	Ave	0.6317	0.6007	0.1000	9.51	10.0	-4.9	20.0
Vinyl acetate	Ave	0.3050	0.2834		18.6	20.0	-7.1	20.0
2-Butanone (MEK)	Ave	0.0367	0.0358		39.0	40.0	-2.5	20.0
cis-1,2-Dichloroethene	Ave	0.3510	0.3426		9.76	10.0	-2.4	20.0
2,2-Dichloropropane	Lin1		0.6321		11.6	10.0	15.5	20.0
sec-Butyl Alcohol	Ave	0.7889	0.7197		274	300	-8.8	20.0
Bromochloromethane	Ave	0.1690	0.1787		10.6	10.0	5.7	20.0
Chloroform	Ave	0.6242	0.6310		10.1	10.0	1.1	20.0
Tetrahydrofuran	Ave	0.0244	0.0202		16.6	20.0	-17.2	20.0
1,1,1-Trichloroethane	Ave	0.6197	0.6084		9.82	10.0	-1.8	20.0
Cyclohexane	Ave	0.5690	0.5235		9.20	10.0	-8.0	20.0
1,1-Dichloropropene	Ave	0.5108	0.5067		9.92	10.0	-0.8	20.0
Carbon tetrachloride	Ave	0.6149	0.6251		10.2	10.0	1.7	20.0
Isobutyl alcohol	Ave	0.2606	0.2280		219	250	-12.5	20.0
1,2-Dichloroethane	Ave	0.2473	0.2338		9.46	10.0	-5.4	20.0
Benzene	Ave	0.9810	0.996		10.2	10.0	1.5	20.0
Trichloroethene	Ave	0.4276	0.4236		9.91	10.0	-0.9	20.0
2-Pentanone	Ave	0.0793	0.0736		37.1	40.0	-7.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/2 Calibration Date: 05/19/2015 06:53

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7712.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3382	0.3193		9.44	10.0	-5.6	20.0
Methylcyclohexane	Ave	0.4844	0.4618		9.53	10.0	-4.7	20.0
Dibromomethane	Ave	0.1890	0.1853		9.80	10.0	-2.0	20.0
Bromodichloromethane	Ave	0.5342	0.5275		9.87	10.0	-1.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1070	0.1015		9.48	10.0	-5.2	20.0
cis-1,3-Dichloropropene	Ave	1.785	1.703		9.54	10.0	-4.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1114	0.1120		40.2	40.0	0.5	20.0
Toluene	Ave	1.047	1.068		10.2	10.0	2.0	20.0
trans-1,3-Dichloropropene	Ave	0.2994	0.3009		10.1	10.0	0.5	20.0
Ethyl methacrylate	Ave	1.006	0.9062		9.01	10.0	-9.9	20.0
1,1,2-Trichloroethane	Ave	0.1881	0.1866		9.92	10.0	-0.8	20.0
1,3-Dichloropropane	Ave	1.288	1.235		9.59	10.0	-4.1	20.0
Tetrachloroethene	Ave	1.578	1.707		10.8	10.0	8.2	20.0
2-Hexanone	Ave	0.2986	0.2771		37.1	40.0	-7.2	20.0
Chlorodibromomethane	Ave	1.545	1.606		10.4	10.0	3.9	20.0
1,2-Dibromoethane	Ave	1.021	0.9875		9.67	10.0	-3.3	20.0
1-Chlorohexane	Ave	2.012	2.028		10.1	10.0	0.8	20.0
Chlorobenzene	Ave	3.064	3.073	0.3000	10.0	10.0	0.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.522	1.592		10.5	10.0	4.6	20.0
Ethylbenzene	Ave	1.507	1.479		9.81	10.0	-1.9	20.0
m-Xylene & p-Xylene	Ave	1.996	1.998		10.0	10.0	0.0	20.0
o-Xylene	Ave	1.732	1.753		10.1	10.0	1.2	20.0
Styrene	Ave	2.743	2.810		10.2	10.0	2.5	20.0
Bromoform	Ave	0.8142	0.8482	0.1000	10.4	10.0	4.2	20.0
Isopropylbenzene	Ave	3.243	2.917		9.00	10.0	-10.0	20.0
Cyclohexanone	Lin1		0.0125		412	400	3.1	20.0
Bromobenzene	Ave	0.8591	0.8271		9.63	10.0	-3.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5910	0.5257	0.3000	8.89	10.0	-11.1	20.0
1,2,3-Trichloropropane	Ave	0.1359	0.1216		8.95	10.0	-10.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1050	0.1009		9.61	10.0	-3.9	20.0
N-Propylbenzene	Ave	0.8699	0.8352		9.60	10.0	-4.0	20.0
2-Chlorotoluene	Ave	0.7341	0.7110		9.69	10.0	-3.1	20.0
4-Chlorotoluene	Ave	0.8332	0.8516		10.2	10.0	2.2	20.0
1,3,5-Trimethylbenzene	Ave	2.513	2.306		9.18	10.0	-8.2	20.0
tert-Butylbenzene	Ave	2.922	2.752		9.42	10.0	-5.8	20.0
1,2,4-Trimethylbenzene	Ave	2.432	2.243		9.22	10.0	-7.8	20.0
sec-Butylbenzene	Ave	0.7850	0.8000		10.2	10.0	1.9	20.0
1,3-Dichlorobenzene	Ave	1.468	1.497		10.2	10.0	2.0	20.0
p-Isopropyltoluene	Ave	3.314	3.223		9.73	10.0	-2.7	20.0
1,4-Dichlorobenzene	Ave	1.760	1.773		10.1	10.0	0.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.294		10.1	10.0	0.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/2 Calibration Date: 05/19/2015 06:53

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7712.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	2.848	2.745		9.64	10.0	-3.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0982	0.0992		10.1	10.0	1.0	20.0
1,2,4-Trichlorobenzene	Ave	0.8943	0.8691		9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.8679	0.8804		10.1	10.0	1.4	20.0
Naphthalene	Ave	0.8574	0.8067		9.41	10.0	-5.9	20.0
1,2,3-Trichlorobenzene	Ave	0.6829	0.6480		9.49	10.0	-5.1	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7712.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 06:53:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub65

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:12 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 07:19:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.489	3.489	0.000	86	114189	250.0	250.0	
* 2 Fluorobenzene	96	6.395	6.395	0.000	98	601427	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.041	11.041	0.000	86	152466	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.147	15.147	0.000	94	284612	12.5	12.5	
27 Dichlorodifluoromethane	85	1.905	1.905	0.000	98	250731	10.0	11.0	
30 Chloromethane	50	1.975	1.975	0.000	99	139772	10.0	9.40	M
31 Butadiene	54	2.079	2.079	0.000	84	104346	NC	NC	
32 Vinyl chloride	62	2.097	2.097	0.000	98	152246	10.0	10.6	
35 Bromomethane	94	2.340	2.340	0.000	89	166421	10.0	10.8	
36 Chloroethane	64	2.393	2.393	0.000	98	105723	10.0	10.8	
37 Dichlorofluoromethane	67	2.532	2.532	0.000	97	389670	10.0	9.88	
38 Trichlorofluoromethane	101	2.601	2.601	0.000	99	352919	10.0	10.4	
40 Ethyl ether	59	2.793	2.793	0.000	90	63785	10.0	9.81	
44 Acrolein	56	2.915	2.915	0.000	98	37293	100.0	96.8	
45 1,1-Dichloroethene	96	3.036	3.036	0.000	99	167193	10.0	10.5	
48 Acetone	43	3.036	3.036	0.000	30	32353	40.0	44.6	
46 1,1,2-Trichloro-1,2,2-trif	151	3.089	3.089	0.000	95	271308	10.0	11.4	
49 Iodomethane	142	3.193	3.193	0.000	98	437921	10.0	10.6	
50 Carbon disulfide	76	3.263	3.263	0.000	98	578572	10.0	10.7	
52 3-Chloro-1-propene	41	3.350	3.350	0.000	85	232519	10.0	9.96	
51 Methyl acetate	43	3.350	3.350	0.000	68	157521	50.0	48.5	
54 Methylene Chloride	84	3.472	3.472	0.000	90	143468	10.0	10.6	
55 2-Methyl-2-propanol	59	3.576	3.576	0.000	93	29442	100.0	91.4	
58 Acrylonitrile	53	3.680	3.680	0.000	98	103401	100.0	98.9	
57 trans-1,2-Dichloroethene	96	3.767	3.767	0.000	100	180797	10.0	10.6	
56 Methyl tert-butyl ether	73	3.785	3.785	0.000	93	239780	10.0	9.82	
59 Hexane	57	4.063	4.063	0.000	91	232743	10.0	9.06	
62 1,1-Dichloroethane	63	4.202	4.202	0.000	95	289021	10.0	9.51	
61 Vinyl acetate	43	4.220	4.220	0.000	96	272682	20.0	18.6	
65 cis-1,2-Dichloroethene	96	4.881	4.881	0.000	83	164837	10.0	9.76	
67 2-Butanone (MEK)	43	4.881	4.881	0.000	42	68927	40.0	39.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.898	4.898	0.000	87	304131	10.0	11.6	
70 sec-Butyl Alcohol	45	5.107	5.107	0.000	95	98621	300.0	273.7	
71 Chlorobromomethane	128	5.177	5.177	0.000	87	85975	10.0	10.6	
74 Chloroform	83	5.264	5.264	0.000	93	303594	10.0	10.1	
72 Tetrahydrofuran	42	5.281	5.281	0.000	36	19444	20.0	16.6	
75 1,1,1-Trichloroethane	97	5.560	5.560	0.000	99	292722	10.0	9.82	
76 Cyclohexane	56	5.647	5.647	0.000	87	251868	10.0	9.20	
78 1,1-Dichloropropene	75	5.751	5.751	0.000	99	243813	10.0	9.92	
77 Carbon tetrachloride	117	5.786	5.786	0.000	97	300760	10.0	10.2	
80 Isobutyl alcohol	41	5.873	5.873	0.000	94	26038	250.0	218.7	
82 1,2-Dichloroethane	62	6.012	6.012	0.000	94	112504	10.0	9.46	
81 Benzene	78	6.012	6.012	0.000	94	479268	10.0	10.2	
84 n-Heptane	43	6.412	6.412	0.000	90	269728	10.0	9.77	
85 Trichloroethene	95	6.917	6.917	0.000	94	203799	10.0	9.91	
89 2-Pentanone	43	7.160	7.160	0.000	99	141629	40.0	37.1	
90 1,2-Dichloropropane	63	7.213	7.213	0.000	96	153621	10.0	9.44	
87 Methylcyclohexane	55	7.230	7.230	0.000	91	222178	10.0	9.53	
92 Dibromomethane	93	7.387	7.387	0.000	93	89135	10.0	9.80	
94 Dichlorobromomethane	83	7.613	7.613	0.000	100	253786	10.0	9.87	
96 2-Chloroethyl vinyl ether	63	8.065	8.065	0.000	92	48828	10.0	9.48	
97 cis-1,3-Dichloropropene	75	8.291	8.291	0.000	97	207742	10.0	9.54	
98 4-Methyl-2-pentanone (MIBK	43	8.535	8.535	0.000	96	215454	40.0	40.2	
99 Toluene	91	8.831	8.831	0.000	99	514038	10.0	10.2	
100 trans-1,3-Dichloropropene	75	9.144	9.144	0.000	91	144795	10.0	10.1	
101 Ethyl methacrylate	69	9.353	9.353	0.000	87	110527	10.0	9.01	
102 1,1,2-Trichloroethane	97	9.423	9.423	0.000	89	89771	10.0	9.92	
104 1,3-Dichloropropane	76	9.701	9.701	0.000	88	150646	10.0	9.59	
103 Tetrachloroethene	164	9.718	9.718	0.000	97	208164	10.0	10.8	
105 2-Hexanone	43	9.875	9.875	0.000	95	135206	40.0	37.1	
107 Chlorodibromomethane	129	10.084	10.084	0.000	89	195878	10.0	10.4	
109 Ethylene Dibromide	107	10.258	10.258	0.000	98	120442	10.0	9.67	
110 1-Chlorohexane	91	11.093	11.093	0.000	77	247390	10.0	10.1	
111 Chlorobenzene	112	11.093	11.093	0.000	92	374825	10.0	10.0	
113 1,1,1,2-Tetrachloroethane	131	11.232	11.232	0.000	93	194233	10.0	10.5	
112 Ethylbenzene	106	11.302	11.302	0.000	98	180338	10.0	9.81	
114 m-Xylene & p-Xylene	106	11.511	11.511	0.000	99	243650	10.0	10.0	
115 o-Xylene	106	12.172	12.172	0.000	97	213866	10.0	10.1	
116 Styrene	104	12.207	12.207	0.000	94	342758	10.0	10.2	
117 Bromoform	173	12.485	12.485	0.000	97	103461	10.0	10.4	
118 Isopropylbenzene	105	12.833	12.833	0.000	96	664276	10.0	9.00	
119 Cyclohexanone	55	12.955	12.955	0.000	91	60721	400.0	412.4	
121 Bromobenzene	156	13.320	13.320	0.000	94	188331	10.0	9.63	
122 1,1,2,2-Tetrachloroethane	83	13.338	13.338	0.000	95	119702	10.0	8.89	
124 1,2,3-Trichloropropane	110	13.407	13.407	0.000	81	27687	10.0	8.95	
125 trans-1,4-Dichloro-2-buten	53	13.459	13.459	0.000	74	22974	10.0	9.61	
123 N-Propylbenzene	120	13.564	13.564	0.000	98	190162	10.0	9.60	
126 2-Chlorotoluene	126	13.686	13.686	0.000	70	161890	10.0	9.69	a
128 4-Chlorotoluene	126	13.877	13.877	0.000	98	193910	10.0	10.2	
127 1,3,5-Trimethylbenzene	105	13.895	13.895	0.000	96	525004	10.0	9.18	
129 tert-Butylbenzene	119	14.469	14.469	0.000	94	626582	10.0	9.42	
130 1,2,4-Trimethylbenzene	105	14.556	14.556	0.000	95	510649	10.0	9.22	
131 sec-Butylbenzene	134	14.869	14.869	0.000	93	182158	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	15.026	15.026	0.000	96	340871	10.0	10.2	
133 4-Isopropyltoluene	119	15.147	15.147	0.000	97	733871	10.0	9.73	
134 1,4-Dichlorobenzene	146	15.182	15.182	0.000	95	403721	10.0	10.1	
138 1,2-Dichlorobenzene	146	15.843	15.843	0.000	98	294689	10.0	10.1	
137 n-Butylbenzene	91	15.878	15.878	0.000	96	625072	10.0	9.64	
139 1,2-Dibromo-3-Chloropropan	157	16.957	16.957	0.000	91	22579	10.0	10.1	
141 1,2,4-Trichlorobenzene	180	17.897	17.897	0.000	95	197881	10.0	9.72	
142 Hexachlorobutadiene	225	18.088	18.088	0.000	97	200449	10.0	10.1	
143 Naphthalene	128	18.123	18.123	0.000	96	183668	10.0	9.41	
144 1,2,3-Trichlorobenzene	180	18.366	18.366	0.000	96	147550	10.0	9.49	
93 1,4-Dioxane	88		18.432				ND	ND	
S 145 1,2-Dichloroethene, Total	1				0		20.0	20.3	
S 146 Xylenes, Total	106				0		20.0	20.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	20.3	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 149 Trihalomethanes, Total	1				0		40.0	40.8	
S 150 Xylenes, Total (URS)	1				0		20.0	20.1	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

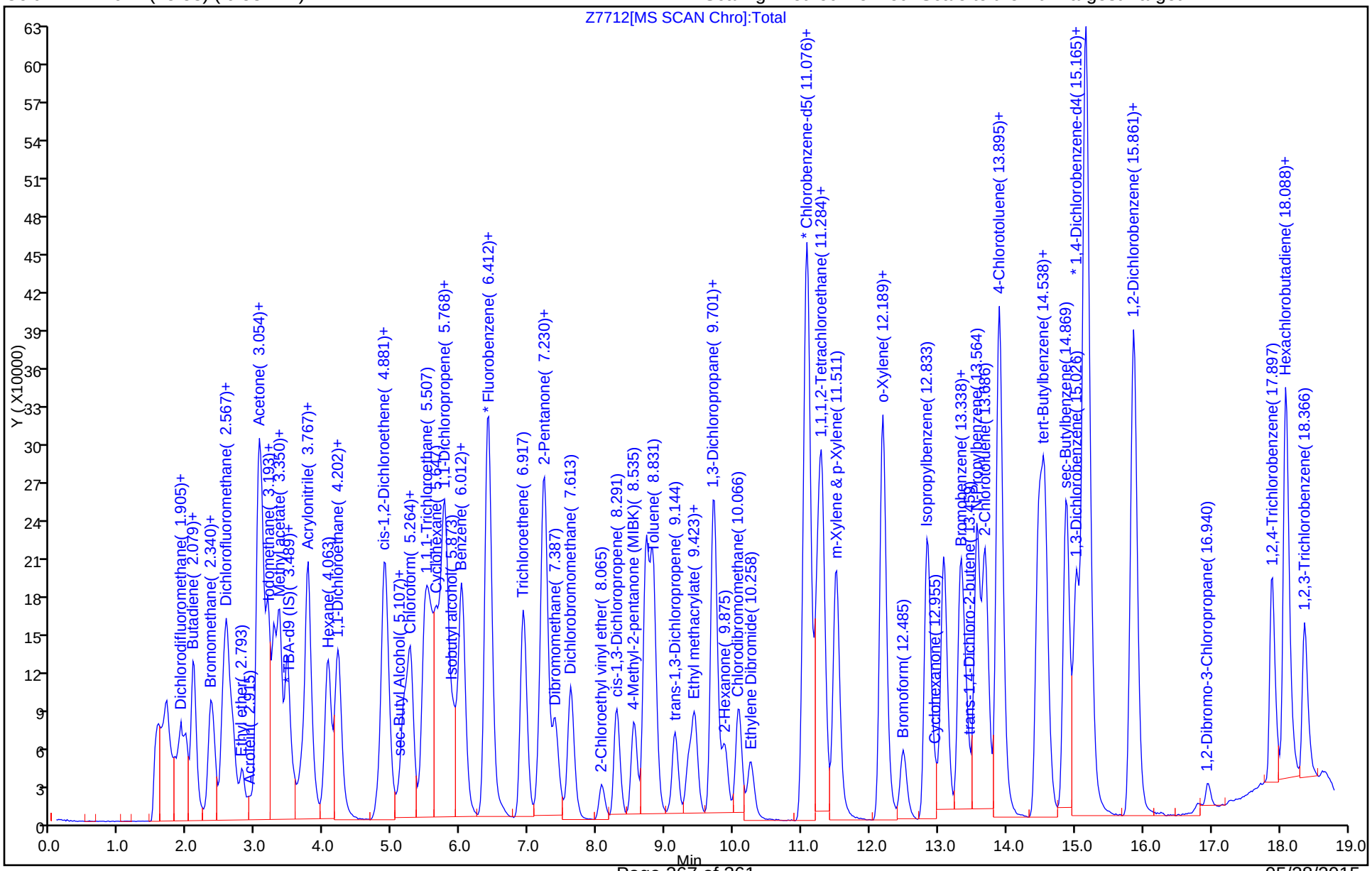
MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-Main A_00022	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added:	5.00	Units: uL
MV-2cleve+AVA_00009	Amount Added:	5.00	Units: uL

Report Date: 19-May-2015 11:10:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7712.D				
Injection Date:	19-May-2015 06:53:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

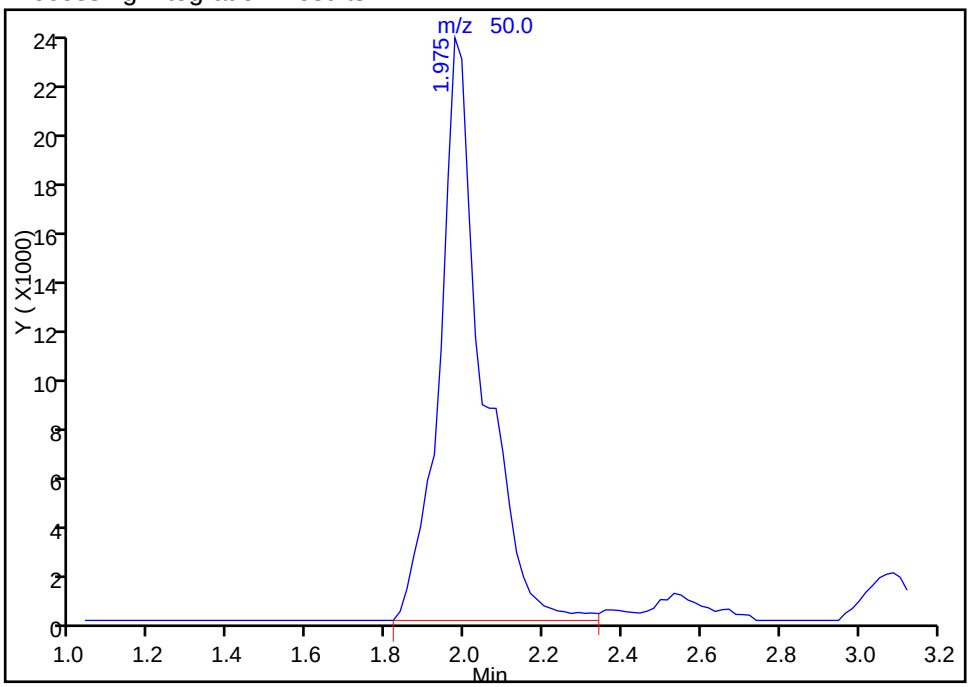
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7712.D				
Injection Date:	19-May-2015 06:53:30	Instrument ID:	VMS_Z		
Lims ID:	CCV				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

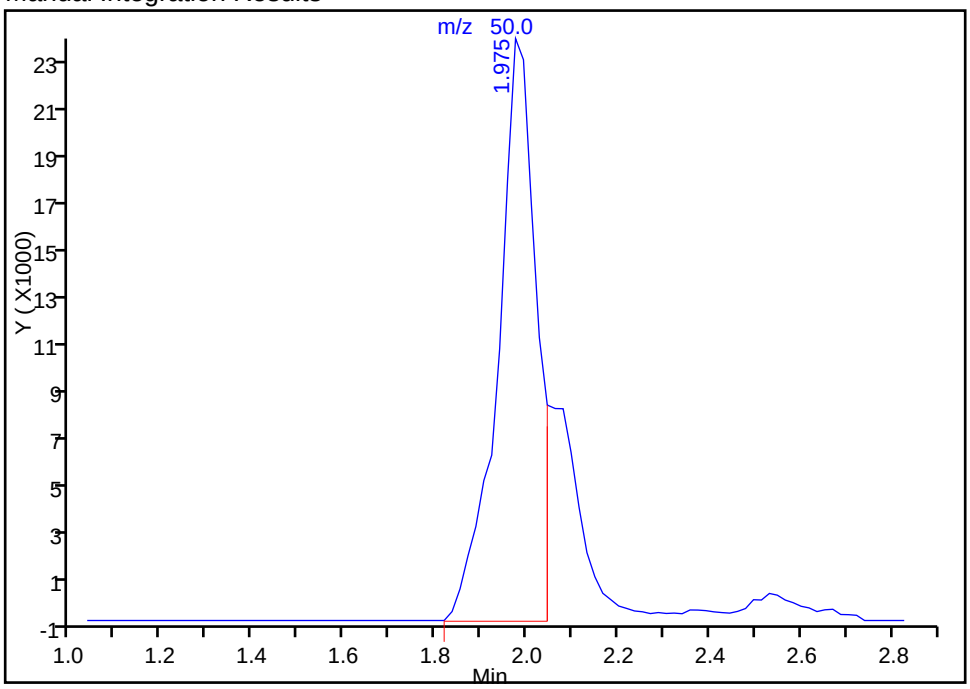
Processing Integration Results

RT: 1.98
Area: 179595
Amount: 12.081840
Amount Units: ug/l



Manual Integration Results

RT: 1.98
Area: 139772
Amount: 9.402840
Amount Units: ug/l



Reviewer: moanm, 19-May-2015 07:19:11
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

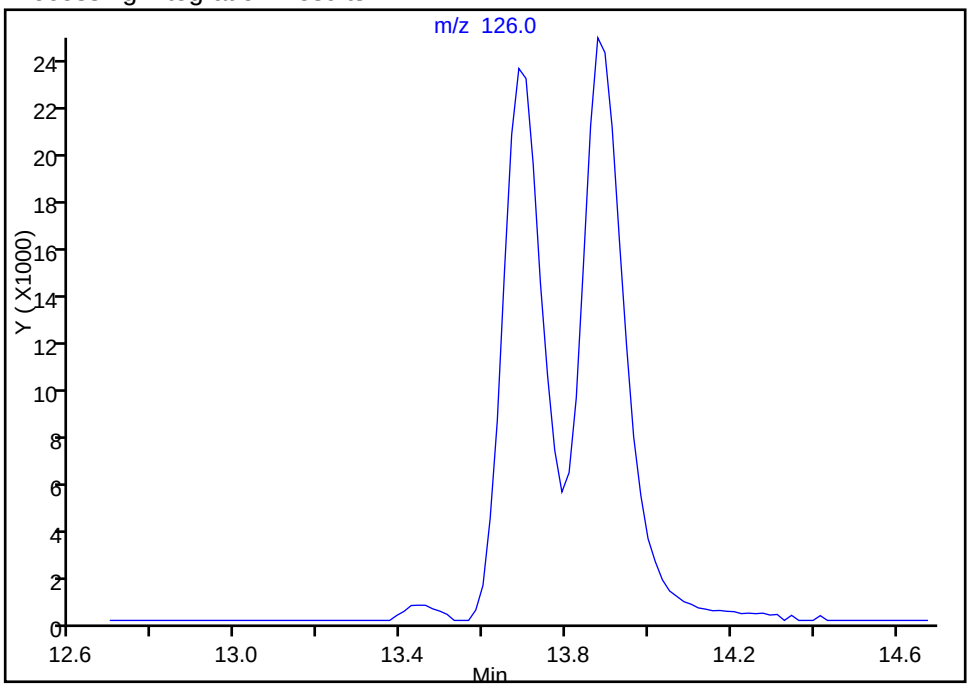
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7712.D				
Injection Date:	19-May-2015 06:53:30	Instrument ID:	VMS_Z		
Lims ID:	CCV				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

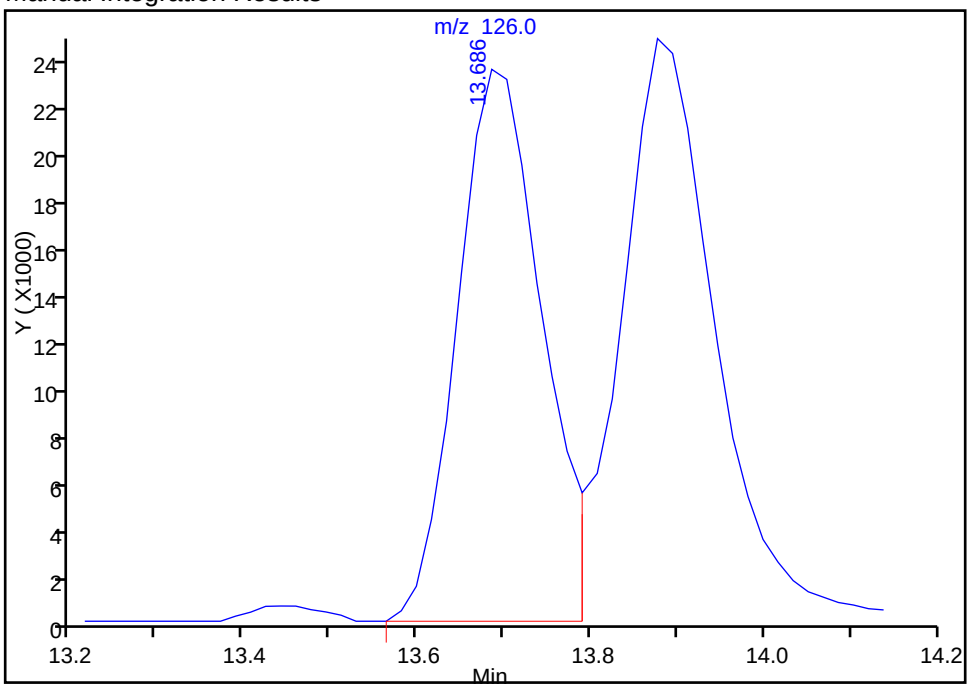
Not Detected
Expected RT: 13.69

Processing Integration Results



RT: 13.69
Area: 161890
Amount: 9.685499
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 19-May-2015 07:19:11
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/3 Calibration Date: 05/19/2015 07:15

Instrument ID: VMS_Z Calib Start Date: 11/05/2014 00:47

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 11/05/2014 02:43

Lab File ID: Z7713.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Ave	0.0003	0.0004			500	10.7	20.0

FORM VII 8260B

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 07:15:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:13 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 07:57:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.491	0.000	93	110103	250.0	250.0	
* 2 Fluorobenzene	96	6.397	6.397	0.000	99	599449	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.043	11.043	0.000	85	157451	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.150	15.150	0.000	94	270027	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.475	5.475	0.000	94	321274	10.5	11.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.910	5.910	0.000	94	119475	10.5	10.8	
$ 10 Toluene-d8 (Surr)	98	8.712	8.712	0.000	92	579897	10.5	10.9	
$ 11 4-Bromofluorobenzene (Surr	95	13.079	13.079	0.000	91	318379	10.5	10.7	
34 Ethylene oxide	43	2.308	2.308	0.000	99	387153	2000.0	1739.2	
39 Ethanol	45	2.830	2.830	0.000	24	9195	NC	NC	
42 Propene oxide	58	2.865	2.865	0.000	96	440891	500.0	481.7	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.317	3.317	0.000	49	23175	125.0	96.4	
60 Isopropyl ether	87	4.309	4.309	0.000	97	148571	12.5	12.9	
63 2-Chloro-1,3-butadiene	53	4.327	4.327	0.000	88	204511	10.0	9.10	
64 Tert-butyl ethyl ether	59	4.744	4.744	0.000	98	459141	12.5	12.0	
69 Propionitrile	54	4.936	4.936	0.000	52	42026	125.0	108.4	
68 Ethyl acetate	43	4.953	4.953	0.000	99	80774	20.0	19.2	
73 Methacrylonitrile	41	5.127	5.127	0.000	91	229766	100.0	92.7	
83 Tert-amyl methyl ether	73	6.206	6.206	0.000	98	417976	12.5	12.8	
88 Ethyl acrylate	55	6.815	6.815	0.000	24	3039	NC	NC	
86 n-Butanol	56	6.815	6.815	0.000	83	21528	250.0	226.4	
91 Methyl methacrylate	100	7.406	7.406	0.000	90	40080	20.0	20.5	
95 2-Nitropropane	41	7.911	7.911	0.000	97	19045	20.0	18.1	
106 Tetrahydrothiophene	60	10.051	10.051	0.000	91	34735	10.0	7.53	
120 cis-1,4-Dichloro-2-butene	53	12.923	12.923	0.000	0	18676	10.0	8.05	
135 1,2,3-Trimethylbenzene	105	15.306	15.306	0.000	95	453968	10.0	9.95	
140 1,3,5-Trichlorobenzene	180	17.238	17.238	0.000	98	261142	10.0	10.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

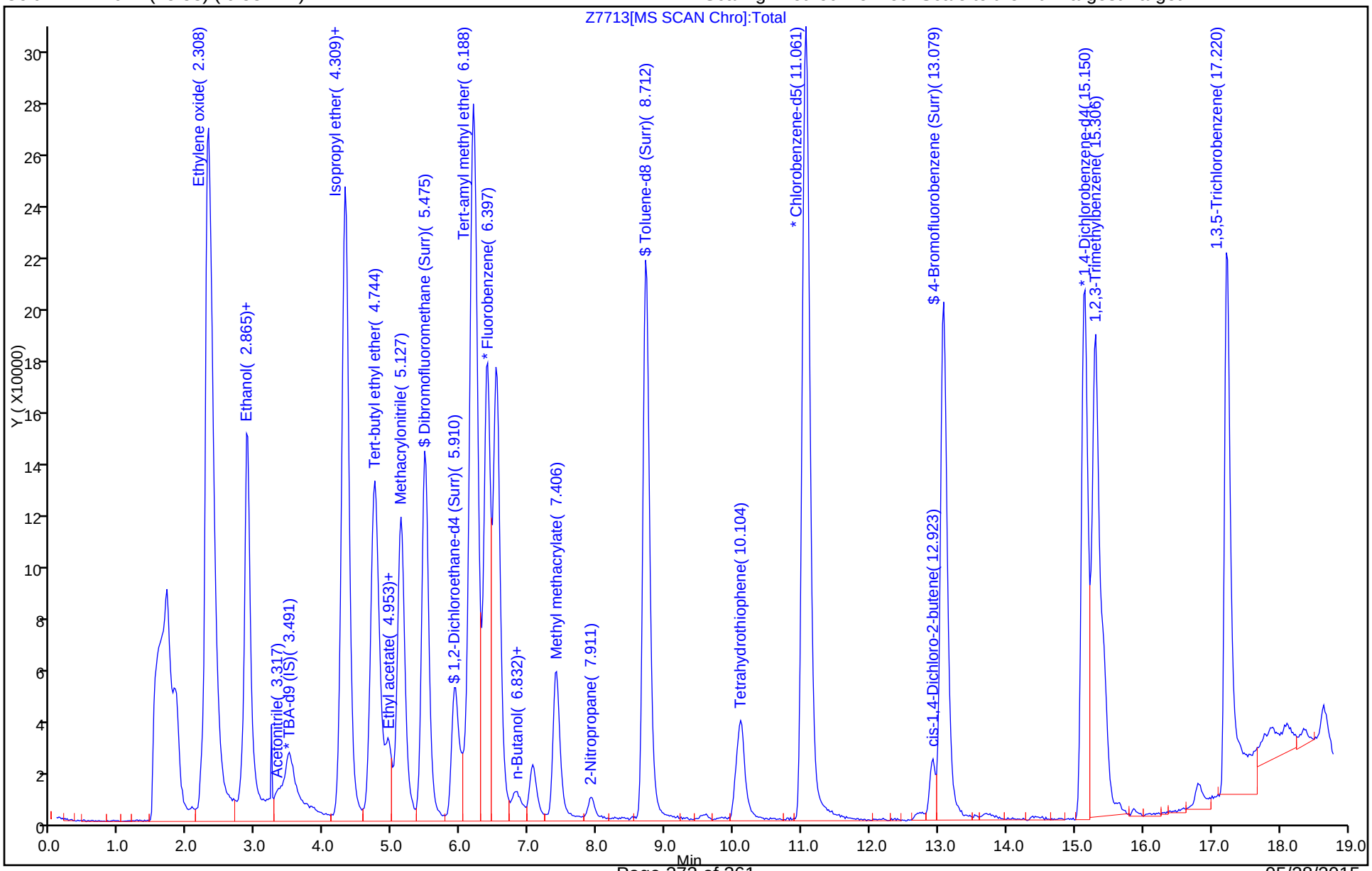
MV-Supp A_00011	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 19-May-2015 11:10:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D				
Injection Date:	19-May-2015 07:15:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/3 Calibration Date: 05/19/2015 07:15

Instrument ID: VMS_Z Calib Start Date: 12/11/2014 13:08

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 12/11/2014 15:07

Lab File ID: Z7713.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl alcohol	Lin2				32.0	100	-100.0*	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 07:15:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:13 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 07:57:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.491	0.000	93	110103	250.0	250.0	
* 2 Fluorobenzene	96	6.397	6.397	0.000	99	599449	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.043	11.043	0.000	85	157451	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.150	15.150	0.000	94	270027	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.475	5.475	0.000	94	321274	10.5	11.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.910	5.910	0.000	94	119475	10.5	10.8	
$ 10 Toluene-d8 (Surr)	98	8.712	8.712	0.000	92	579897	10.5	10.9	
$ 11 4-Bromofluorobenzene (Surr	95	13.079	13.079	0.000	91	318379	10.5	10.7	
34 Ethylene oxide	43	2.308	2.308	0.000	99	387153	2000.0	1739.2	
39 Ethanol	45	2.830	2.830	0.000	24	9195	NC	NC	
42 Propene oxide	58	2.865	2.865	0.000	96	440891	500.0	481.7	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.317	3.317	0.000	49	23175	125.0	96.4	
60 Isopropyl ether	87	4.309	4.309	0.000	97	148571	12.5	12.9	
63 2-Chloro-1,3-butadiene	53	4.327	4.327	0.000	88	204511	10.0	9.10	
64 Tert-butyl ethyl ether	59	4.744	4.744	0.000	98	459141	12.5	12.0	
69 Propionitrile	54	4.936	4.936	0.000	52	42026	125.0	108.4	
68 Ethyl acetate	43	4.953	4.953	0.000	99	80774	20.0	19.2	
73 Methacrylonitrile	41	5.127	5.127	0.000	91	229766	100.0	92.7	
83 Tert-amyl methyl ether	73	6.206	6.206	0.000	98	417976	12.5	12.8	
88 Ethyl acrylate	55	6.815	6.815	0.000	24	3039	NC	NC	
86 n-Butanol	56	6.815	6.815	0.000	83	21528	250.0	226.4	
91 Methyl methacrylate	100	7.406	7.406	0.000	90	40080	20.0	20.5	
95 2-Nitropropane	41	7.911	7.911	0.000	97	19045	20.0	18.1	
106 Tetrahydrothiophene	60	10.051	10.051	0.000	91	34735	10.0	7.53	
120 cis-1,4-Dichloro-2-butene	53	12.923	12.923	0.000	0	18676	10.0	8.05	
135 1,2,3-Trimethylbenzene	105	15.306	15.306	0.000	95	453968	10.0	9.95	
140 1,3,5-Trichlorobenzene	180	17.238	17.238	0.000	98	261142	10.0	10.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

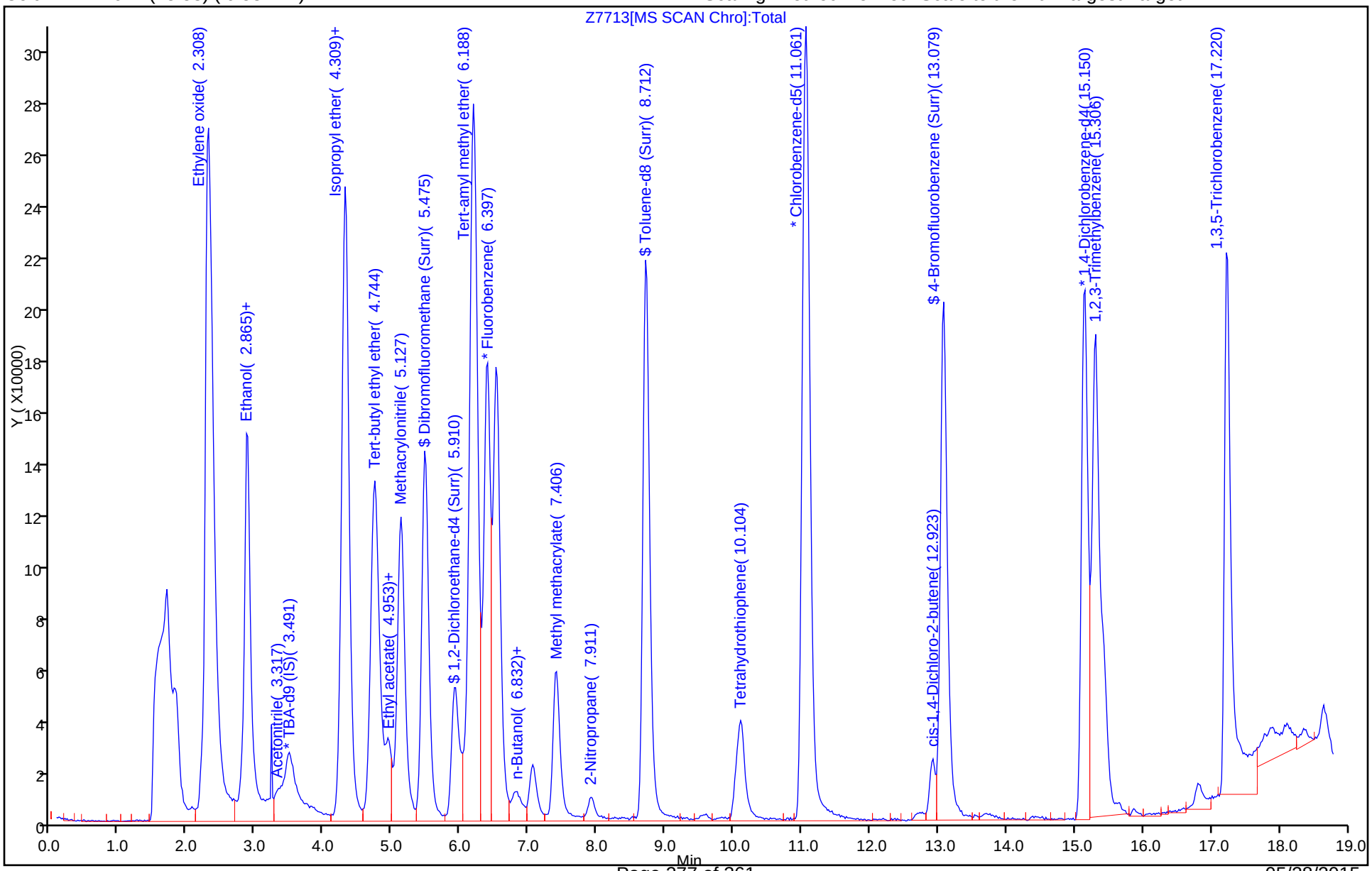
MV-Supp A_00011	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 19-May-2015 11:10:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D				
Injection Date:	19-May-2015 07:15:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/3 Calibration Date: 05/19/2015 07:15

Instrument ID: VMS_Z Calib Start Date: 04/27/2015 11:28

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/27/2015 13:21

Lab File ID: Z7713.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0050	0.0039		96.4	125	-22.9*	20.0
Isopropyl ether	Ave	0.2406	0.2479		12.9	12.5	3.0	20.0
2-Chloro-1,3-butadiene	Ave	0.4684	0.4265		9.10	10.0	-9.0	20.0
Tert-butyl ethyl ether	Ave	0.7946	0.7659		12.0	12.5	-3.6	20.0
Propionitrile	Ave	0.0081	0.0070		108	125	-13.3	20.0
Ethyl acetate	Ave	0.0878	0.0842		19.2	20.0	-4.1	20.0
Methacrylonitrile	Ave	0.0517	0.0479		92.7	100	-7.3	20.0
Tert-amyl methyl ether	Ave	0.6822	0.6973		12.8	12.5	2.2	20.0
n-Butanol	Ave	0.0020	0.0018		226	250	-9.4	20.0
Methyl methacrylate	Ave	0.0408	0.0418		20.5	20.0	2.4	20.0
2-Nitropropane	Ave	0.0219	0.0199		18.1	20.0	-9.4	20.0
cis-1,4-Dichloro-2-butene	Ave	0.1074	0.0865		8.05	10.0	-19.5	20.0
1,2,3-Trimethylbenzene	Ave	2.113	2.101		9.95	10.0	-0.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 07:15:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:13 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 07:57:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.491	0.000	93	110103	250.0	250.0	
* 2 Fluorobenzene	96	6.397	6.397	0.000	99	599449	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.043	11.043	0.000	85	157451	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.150	15.150	0.000	94	270027	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.475	5.475	0.000	94	321274	10.5	11.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.910	5.910	0.000	94	119475	10.5	10.8	
$ 10 Toluene-d8 (Surr)	98	8.712	8.712	0.000	92	579897	10.5	10.9	
$ 11 4-Bromofluorobenzene (Surr	95	13.079	13.079	0.000	91	318379	10.5	10.7	
34 Ethylene oxide	43	2.308	2.308	0.000	99	387153	2000.0	1739.2	
39 Ethanol	45	2.830	2.830	0.000	24	9195	NC	NC	
42 Propene oxide	58	2.865	2.865	0.000	96	440891	500.0	481.7	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.317	3.317	0.000	49	23175	125.0	96.4	
60 Isopropyl ether	87	4.309	4.309	0.000	97	148571	12.5	12.9	
63 2-Chloro-1,3-butadiene	53	4.327	4.327	0.000	88	204511	10.0	9.10	
64 Tert-butyl ethyl ether	59	4.744	4.744	0.000	98	459141	12.5	12.0	
69 Propionitrile	54	4.936	4.936	0.000	52	42026	125.0	108.4	
68 Ethyl acetate	43	4.953	4.953	0.000	99	80774	20.0	19.2	
73 Methacrylonitrile	41	5.127	5.127	0.000	91	229766	100.0	92.7	
83 Tert-amyl methyl ether	73	6.206	6.206	0.000	98	417976	12.5	12.8	
88 Ethyl acrylate	55	6.815	6.815	0.000	24	3039	NC	NC	
86 n-Butanol	56	6.815	6.815	0.000	83	21528	250.0	226.4	
91 Methyl methacrylate	100	7.406	7.406	0.000	90	40080	20.0	20.5	
95 2-Nitropropane	41	7.911	7.911	0.000	97	19045	20.0	18.1	
106 Tetrahydrothiophene	60	10.051	10.051	0.000	91	34735	10.0	7.53	
120 cis-1,4-Dichloro-2-butene	53	12.923	12.923	0.000	0	18676	10.0	8.05	
135 1,2,3-Trimethylbenzene	105	15.306	15.306	0.000	95	453968	10.0	9.95	
140 1,3,5-Trichlorobenzene	180	17.238	17.238	0.000	98	261142	10.0	10.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

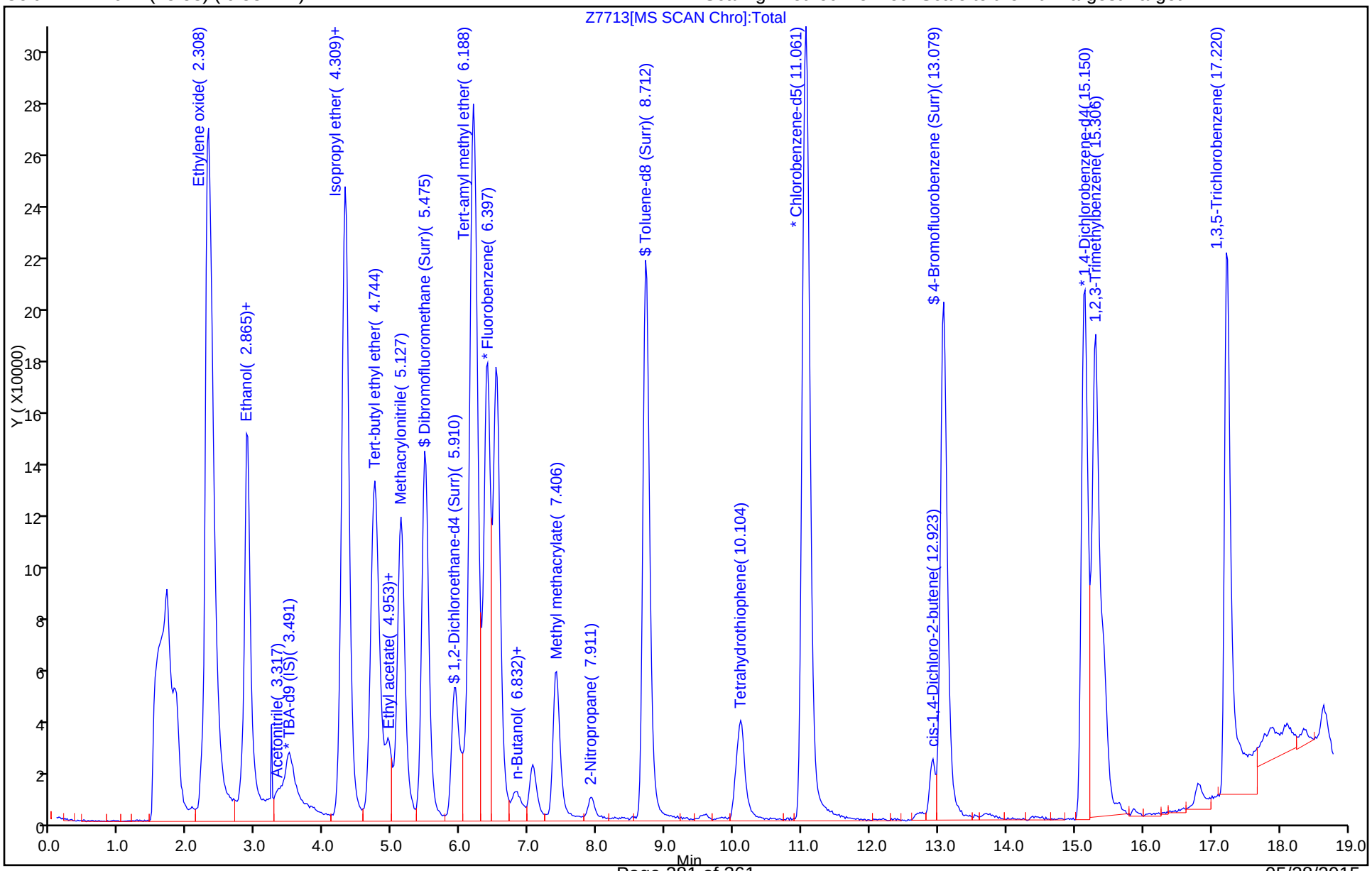
MV-Supp A_00011	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 19-May-2015 11:10:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D				
Injection Date:	19-May-2015 07:15:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCV 280-278072/3 Calibration Date: 05/19/2015 07:15

Instrument ID: VMS_Z Calib Start Date: 05/18/2015 10:39

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/18/2015 12:10

Lab File ID: Z7713.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.6023	0.6380		11.1	10.5	5.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2298	0.2373		10.8	10.5	3.2	20.0
Toluene-d8 (Surr)	Ave	4.221	4.385		10.9	10.5	3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.376	1.404		10.7	10.5	2.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 07:15:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub111

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:13 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 07:57:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.491	3.491	0.000	93	110103	250.0	250.0	
* 2 Fluorobenzene	96	6.397	6.397	0.000	99	599449	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.043	11.043	0.000	85	157451	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.150	15.150	0.000	94	270027	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.475	5.475	0.000	94	321274	10.5	11.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.910	5.910	0.000	94	119475	10.5	10.8	
$ 10 Toluene-d8 (Surr)	98	8.712	8.712	0.000	92	579897	10.5	10.9	
$ 11 4-Bromofluorobenzene (Surr	95	13.079	13.079	0.000	91	318379	10.5	10.7	
34 Ethylene oxide	43	2.308	2.308	0.000	99	387153	2000.0	1739.2	
39 Ethanol	45	2.830	2.830	0.000	24	9195	NC	NC	
42 Propene oxide	58	2.865	2.865	0.000	96	440891	500.0	481.7	
47 Isopropyl alcohol	45		3.154				ND	ND	
53 Acetonitrile	41	3.317	3.317	0.000	49	23175	125.0	96.4	
60 Isopropyl ether	87	4.309	4.309	0.000	97	148571	12.5	12.9	
63 2-Chloro-1,3-butadiene	53	4.327	4.327	0.000	88	204511	10.0	9.10	
64 Tert-butyl ethyl ether	59	4.744	4.744	0.000	98	459141	12.5	12.0	
69 Propionitrile	54	4.936	4.936	0.000	52	42026	125.0	108.4	
68 Ethyl acetate	43	4.953	4.953	0.000	99	80774	20.0	19.2	
73 Methacrylonitrile	41	5.127	5.127	0.000	91	229766	100.0	92.7	
83 Tert-amyl methyl ether	73	6.206	6.206	0.000	98	417976	12.5	12.8	
88 Ethyl acrylate	55	6.815	6.815	0.000	24	3039	NC	NC	
86 n-Butanol	56	6.815	6.815	0.000	83	21528	250.0	226.4	
91 Methyl methacrylate	100	7.406	7.406	0.000	90	40080	20.0	20.5	
95 2-Nitropropane	41	7.911	7.911	0.000	97	19045	20.0	18.1	
106 Tetrahydrothiophene	60	10.051	10.051	0.000	91	34735	10.0	7.53	
120 cis-1,4-Dichloro-2-butene	53	12.923	12.923	0.000	0	18676	10.0	8.05	
135 1,2,3-Trimethylbenzene	105	15.306	15.306	0.000	95	453968	10.0	9.95	
140 1,3,5-Trichlorobenzene	180	17.238	17.238	0.000	98	261142	10.0	10.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-Supp A_00011	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 19-May-2015 11:10:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7713.D

Injection Date: 19-May-2015 07:15:30 Instrument ID: VMS_Z Operator ID: moanm

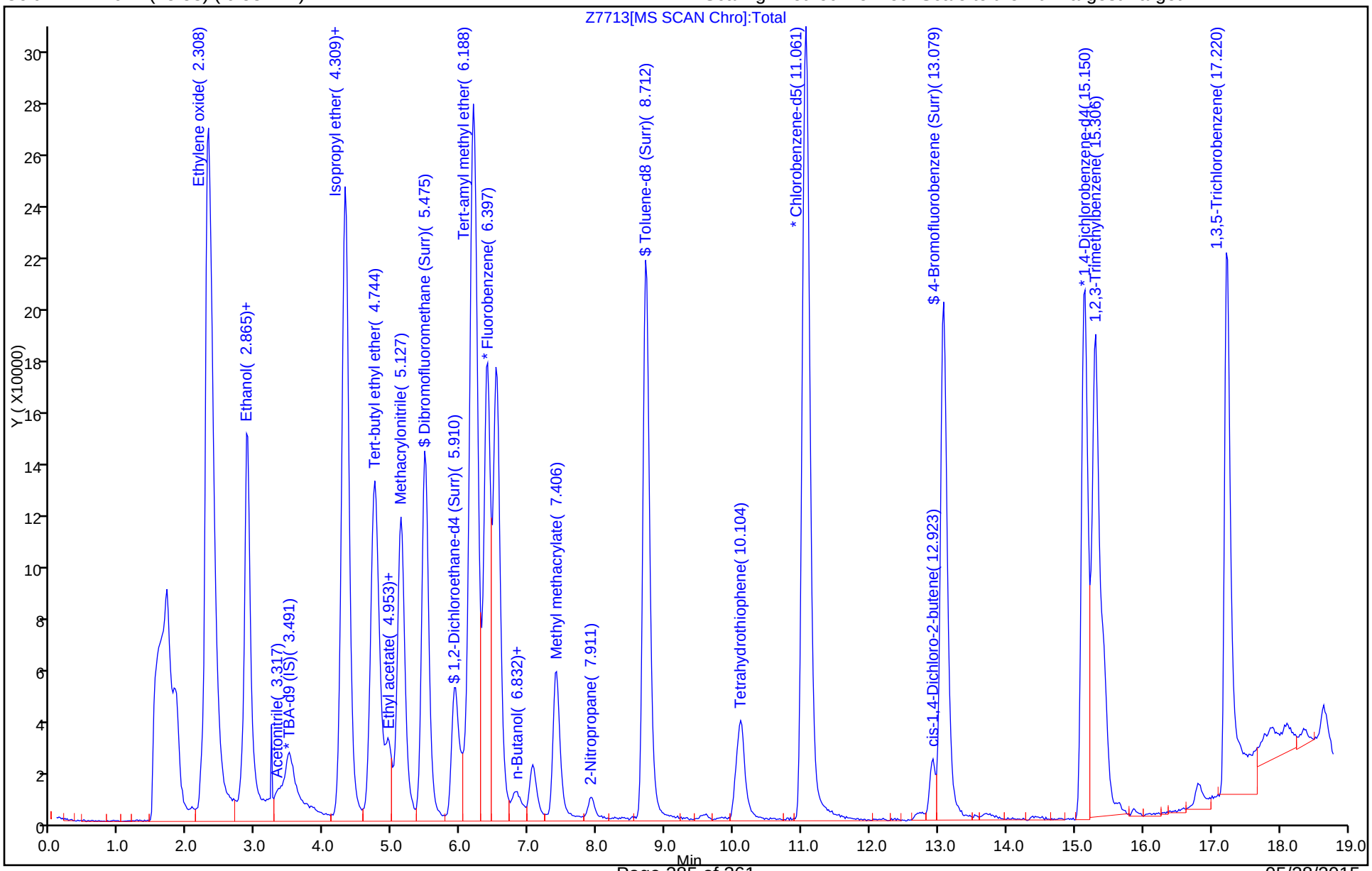
Lims ID: CCV Worklist Smp#: 3

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCVC 280-278072/26 Calibration Date: 05/19/2015 14:28

Instrument ID: VMS_Z Calib Start Date: 04/06/2015 23:25

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/07/2015 01:41

Lab File ID: Z7732.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2				160	200	-100.0*	50.0

FORM VII 8260B

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 19-May-2015 14:28:30 ALS Bottle#: 22 Worklist Smp#: 26
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:56:33 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: bergerb Date: 19-May-2015 15:54:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.503	3.503	0.000	87	101123	250.0	250.0	
* 2 Fluorobenzene	96	6.392	6.392	0.000	98	563285	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.020	0.000	86	143698	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.127	0.000	94	272493	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.469	5.469	0.000	94	306531	10.5	11.3	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.904	0.000	96	120586	10.5	11.6	
$ 10 Toluene-d8 (Surr)	98	8.706	8.706	0.000	92	547149	10.5	11.3	
$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.056	0.000	94	300100	10.5	10.0	
27 Dichlorodifluoromethane	85	1.920	1.920	0.000	98	180479	10.0	8.42	
30 Chloromethane	50	1.989	1.989	0.000	100	99988	10.0	7.18	M
31 Butadiene	54	2.094	2.094	0.000	83	65317	NC	NC	
32 Vinyl chloride	62	2.111	2.111	0.000	98	104683	10.0	7.79	
35 Bromomethane	94	2.337	2.337	0.000	90	134068	10.0	9.28	
36 Chloroethane	64	2.389	2.389	0.000	98	77230	10.0	8.39	
37 Dichlorofluoromethane	67	2.546	2.546	0.000	98	314577	10.0	8.52	
38 Trichlorofluoromethane	101	2.598	2.598	0.000	99	268227	10.0	8.43	
40 Ethyl ether	59	2.807	2.807	0.000	89	54091	10.0	8.88	
44 Acrolein	56	2.911	2.911	0.000	99	29165	100.0	80.8	
45 1,1-Dichloroethene	96	3.033	3.033	0.000	98	136282	10.0	9.18	
48 Acetone	43	3.051	3.051	0.000	31	27198	40.0	40.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.085	3.085	0.000	94	226039	10.0	10.1	
49 Iodomethane	142	3.190	3.190	0.000	98	411118	10.0	10.6	
50 Carbon disulfide	76	3.277	3.277	0.000	98	468176	10.0	9.26	
52 3-Chloro-1-propene	41	3.346	3.346	0.000	85	184976	10.0	8.46	
51 Methyl acetate	43	3.364	3.364	0.000	68	127717	50.0	42.0	
54 Methylene Chloride	84	3.468	3.468	0.000	88	125808	10.0	9.93	
55 2-Methyl-2-propanol	59	3.573	3.573	0.000	91	24633	100.0	85.3	
58 Acrylonitrile	53	3.694	3.694	0.000	98	92650	100.0	94.6	
57 trans-1,2-Dichloroethene	96	3.764	3.764	0.000	100	154593	10.0	9.63	
56 Methyl tert-butyl ether	73	3.781	3.781	0.000	93	216684	10.0	9.47	
59 Hexane	57	4.060	4.060	0.000	91	180459	10.0	7.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.199	4.199	0.000	96	261503	10.0	9.19	
61 Vinyl acetate	43	4.234	4.234	0.000	96	205668	20.0	15.0	
65 cis-1,2-Dichloroethene	96	4.878	4.878	0.000	83	151349	10.0	9.57	
67 2-Butanone (MEK)	43	4.878	4.878	0.000	52	60868	40.0	36.8	
66 2,2-Dichloropropane	77	4.913	4.913	0.000	86	243340	10.0	9.75	
70 sec-Butyl Alcohol	45	5.121	5.121	0.000	95	87854	300.0	275.3	
71 Chlorobromomethane	128	5.174	5.174	0.000	86	82060	10.0	10.8	
74 Chloroform	83	5.261	5.261	0.000	94	278902	10.0	9.92	
72 Tetrahydrofuran	42	5.261	5.261	0.000	36	21952	20.0	20.0	
75 1,1,1-Trichloroethane	97	5.556	5.556	0.000	98	258859	10.0	9.27	
76 Cyclohexane	56	5.643	5.643	0.000	87	208113	10.0	8.12	
78 1,1-Dichloropropene	75	5.748	5.748	0.000	98	208357	10.0	9.05	
77 Carbon tetrachloride	117	5.783	5.783	0.000	97	255974	10.0	9.24	
80 Isobutyl alcohol	41	5.870	5.870	0.000	39	26316	250.0	249.6	
82 1,2-Dichloroethane	62	6.009	6.009	0.000	95	105670	10.0	9.48	
81 Benzene	78	6.026	6.026	0.000	94	425631	10.0	9.63	
84 n-Heptane	43	6.409	6.409	0.000	89	216341	10.0	8.37	
85 Trichloroethene	95	6.914	6.914	0.000	94	185794	10.0	9.64	
89 2-Pentanone	43	7.140	7.140	0.000	99	130460	40.0	36.5	
90 1,2-Dichloropropane	63	7.209	7.209	0.000	94	139775	10.0	9.17	
87 Methylcyclohexane	55	7.227	7.227	0.000	90	188724	10.0	8.65	
92 Dibromomethane	93	7.366	7.366	0.000	93	83838	10.0	9.84	
94 Dichlorobromomethane	83	7.610	7.610	0.000	100	241476	10.0	10.0	
96 2-Chloroethyl vinyl ether	63	8.062	8.062	0.000	92	45006	10.0	9.33	
97 cis-1,3-Dichloropropene	75	8.271	8.271	0.000	97	193640	10.0	9.43	
98 4-Methyl-2-pentanone (MIBK	43	8.532	8.532	0.000	96	200587	40.0	40.0	
99 Toluene	91	8.810	8.810	0.000	99	452509	10.0	9.59	
100 trans-1,3-Dichloropropene	75	9.123	9.123	0.000	91	133374	10.0	9.89	
101 Ethyl methacrylate	69	9.332	9.332	0.000	87	101817	10.0	8.81	
102 1,1,2-Trichloroethane	97	9.419	9.419	0.000	89	83989	10.0	9.91	
104 1,3-Dichloropropane	76	9.680	9.680	0.000	89	141306	10.0	9.54	
103 Tetrachloroethene	164	9.698	9.698	0.000	96	179223	10.0	9.88	
105 2-Hexanone	43	9.854	9.854	0.000	95	122350	40.0	35.6	
107 Chlorodibromomethane	129	10.063	10.063	0.000	89	180275	10.0	10.1	
109 Ethylene Dibromide	107	10.237	10.237	0.000	98	113962	10.0	9.71	
110 1-Chlorohexane	91	11.072	11.072	0.000	94	204845	10.0	8.86	
111 Chlorobenzene	112	11.072	11.072	0.000	95	337116	10.0	9.57	
113 1,1,1,2-Tetrachloroethane	131	11.212	11.212	0.000	94	182742	10.0	10.4	
112 Ethylbenzene	106	11.281	11.281	0.000	98	157601	10.0	9.10	
114 m-Xylene & p-Xylene	106	11.490	11.490	0.000	99	215345	10.0	9.39	
115 o-Xylene	106	12.151	12.151	0.000	96	192942	10.0	9.69	
116 Styrene	104	12.169	12.169	0.000	93	309994	10.0	9.83	
117 Bromoform	173	12.464	12.464	0.000	97	100197	10.0	10.7	
118 Isopropylbenzene	105	12.812	12.812	0.000	96	577903	10.0	8.18	
119 Cyclohexanone	55	12.934	12.934	0.000	88	51110	400.0	367.4	
121 Bromobenzene	156	13.300	13.300	0.000	94	174819	10.0	9.33	
122 1,1,2,2-Tetrachloroethane	83	13.317	13.317	0.000	95	107689	10.0	8.36	
124 1,2,3-Trichloropropane	110	13.369	13.369	0.000	81	26372	10.0	8.90	
125 trans-1,4-Dichloro-2-buten	53	13.421	13.421	0.000	69	20926	10.0	9.14	
123 N-Propylbenzene	120	13.543	13.543	0.000	99	161225	10.0	8.50	
126 2-Chlorotoluene	126	13.665	13.665	0.000	67	143781	10.0	8.98	a
128 4-Chlorotoluene	126	13.856	13.856	0.000	98	165276	10.0	9.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.874	13.874	0.000	96	458583	10.0	8.37	
129 tert-Butylbenzene	119	14.448	14.448	0.000	93	538719	10.0	8.46	
130 1,2,4-Trimethylbenzene	105	14.535	14.535	0.000	95	441029	10.0	8.32	
131 sec-Butylbenzene	134	14.848	14.848	0.000	94	153395	10.0	8.96	
132 1,3-Dichlorobenzene	146	15.005	15.005	0.000	96	309808	10.0	9.68	
133 4-Isopropyltoluene	119	15.127	15.127	0.000	96	607352	10.0	8.41	
134 1,4-Dichlorobenzene	146	15.162	15.162	0.000	96	357809	10.0	9.33	
138 1,2-Dichlorobenzene	146	15.805	15.805	0.000	98	263636	10.0	9.42	
137 n-Butylbenzene	91	15.858	15.858	0.000	97	507814	10.0	8.18	
139 1,2-Dibromo-3-Chloropropan	157	16.936	16.936	0.000	91	21206	10.0	9.91	
141 1,2,4-Trichlorobenzene	180	17.876	17.876	0.000	95	176326	10.0	9.04	
142 Hexachlorobutadiene	225	18.067	18.067	0.000	97	162460	10.0	8.59	
143 Naphthalene	128	18.102	18.102	0.000	97	171955	10.0	9.20	
144 1,2,3-Trichlorobenzene	180	18.346	18.346	0.000	96	132974	10.0	8.93	
93 1,4-Dioxane	88		18.432				ND	ND	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.2	
S 146 Xylenes, Total	106				0		20.0	19.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.2	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.3	
S 149 Trihalomethanes, Total	1				0		40.0	40.8	
S 150 Xylenes, Total (URS)	1				0		20.0	19.1	
S 151 Total BTEX	1				0			47.4	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

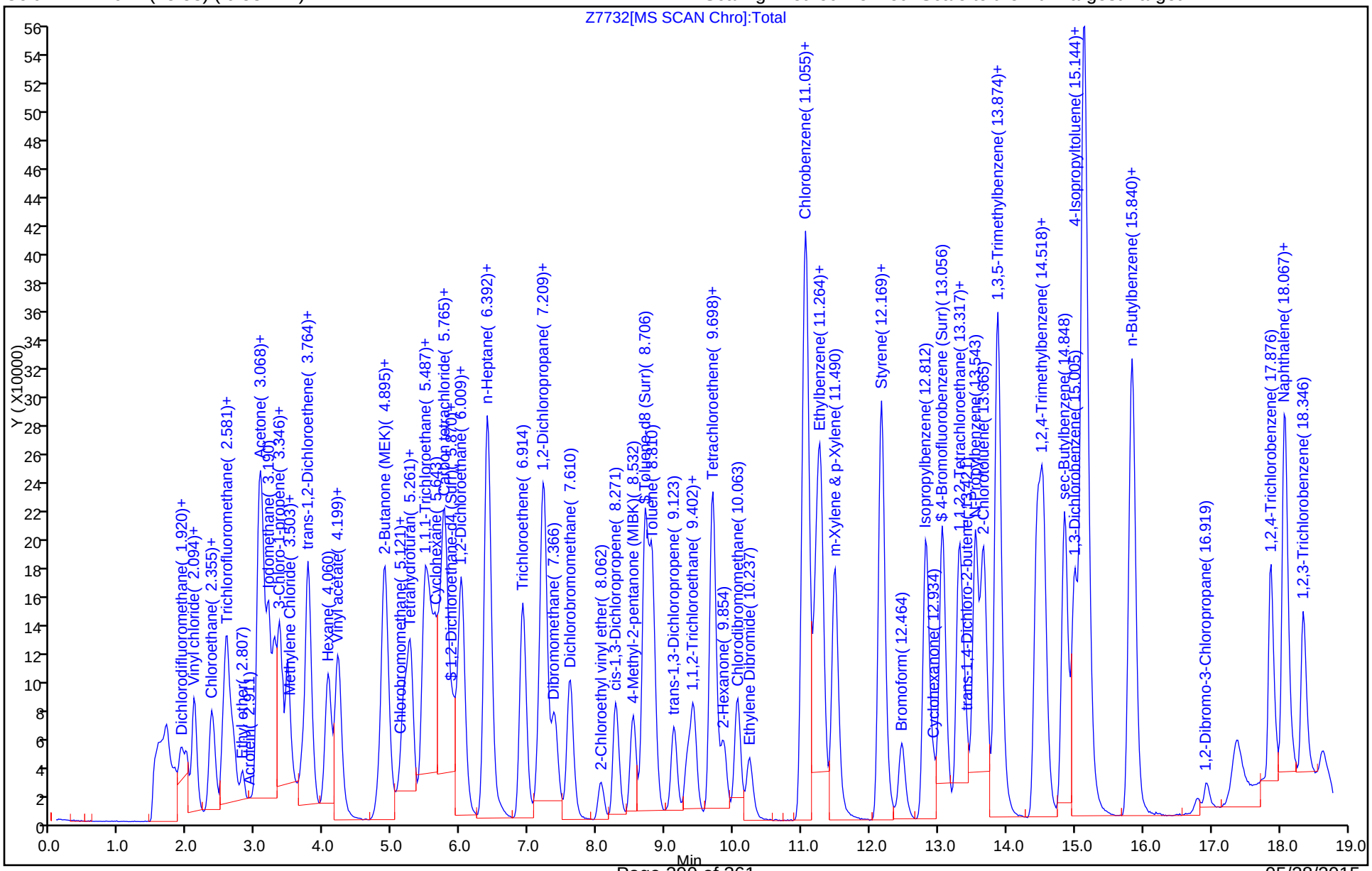
MV-Main A_00022	Amount Added:	5.00	Units: uL	
MV-Gas/Ket A_00033	Amount Added:	5.00	Units: uL	
MV-2cleve+AVA_00009	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D				
Injection Date:	19-May-2015 14:28:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ccvc			Worklist Smp#:	26
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCVC 280-278072/26 Calibration Date: 05/19/2015 14:28

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7732.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4755	0.4005		8.42	10.0	-15.8	50.0
Chloromethane	Ave	0.3090	0.2219	0.1000	7.18	10.0	-28.2	50.0
Vinyl chloride	Ave	0.2982	0.2323		7.79	10.0	-22.1	50.0
Bromomethane	Ave	0.3205	0.2975		9.28	10.0	-7.2	50.0
Chloroethane	Ave	0.2042	0.1714		8.39	10.0	-16.1	50.0
Dichlorofluoromethane	Ave	0.8196	0.6981		8.52	10.0	-14.8	50.0
Trichlorofluoromethane	Ave	0.7058	0.5952		8.43	10.0	-15.7	50.0
Ethyl ether	Ave	0.1351	0.1200		8.88	10.0	-11.2	50.0
Acrolein	Ave	0.0080	0.0065		80.8	100	-19.2	50.0
1,1-Dichloroethene	Ave	0.3295	0.3024		9.18	10.0	-8.2	50.0
Acetone	Ave	0.0151	0.0151		40.0	40.0	0.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.4956	0.5016		10.1	10.0	1.2	50.0
Iodomethane	Ave	0.8624	0.9123		10.6	10.0	5.8	50.0
Carbon disulfide	Ave	1.122	1.039		9.26	10.0	-7.4	50.0
3-Chloro-1-propene	Ave	0.4854	0.4105		8.46	10.0	-15.4	50.0
Methyl acetate	Ave	0.0675	0.0567		42.0	50.0	-16.1	50.0
Methylene Chloride	Ave	0.2812	0.2792		9.93	10.0	-0.7	50.0
tert-Butyl alcohol	Lin		0.6090		85.3	100	-14.7	50.0
Acrylonitrile	Ave	0.0217	0.0206		94.6	100	-5.4	50.0
trans-1,2-Dichloroethene	Ave	0.3561	0.3431		9.63	10.0	-3.7	50.0
Methyl tert-butyl ether	Ave	0.5076	0.4809		9.47	10.0	-5.3	50.0
Hexane	Ave	2.105	1.570		7.46	10.0	-25.4	50.0
1,1-Dichloroethane	Ave	0.6317	0.5803	0.1000	9.19	10.0	-8.1	50.0
Vinyl acetate	Ave	0.3050	0.2282		15.0	20.0	-25.2	50.0
2-Butanone (MEK)	Ave	0.0367	0.0338		36.8	40.0	-8.1	50.0
cis-1,2-Dichloroethene	Ave	0.3510	0.3359		9.57	10.0	-4.3	50.0
2,2-Dichloropropane	Lin1		0.5400		9.75	10.0	-2.5	50.0
sec-Butyl Alcohol	Ave	0.7889	0.7240		275	300	-8.2	50.0
Bromochloromethane	Ave	0.1690	0.1821		10.8	10.0	7.7	50.0
Chloroform	Ave	0.6242	0.6189		9.92	10.0	-0.8	50.0
Tetrahydrofuran	Ave	0.0244	0.0244		20.0	20.0	-0.2	50.0
1,1,1-Trichloroethane	Ave	0.6197	0.5744		9.27	10.0	-7.3	50.0
Cyclohexane	Ave	0.5690	0.4618		8.12	10.0	-18.8	50.0
1,1-Dichloropropene	Ave	0.5108	0.4624		9.05	10.0	-9.5	50.0
Carbon tetrachloride	Ave	0.6149	0.5680		9.24	10.0	-7.6	50.0
Isobutyl alcohol	Ave	0.2606	0.2602		250	250	-0.1	50.0
1,2-Dichloroethane	Ave	0.2473	0.2345		9.48	10.0	-5.2	50.0
Benzene	Ave	0.9810	0.9445		9.63	10.0	-3.7	50.0
Trichloroethene	Ave	0.4276	0.4123		9.64	10.0	-3.6	50.0
2-Pentanone	Ave	0.0793	0.0724		36.5	40.0	-8.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCVC 280-278072/26 Calibration Date: 05/19/2015 14:28

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7732.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3382	0.3102		9.17	10.0	-8.3	50.0
Methylcyclohexane	Ave	0.4844	0.4188		8.65	10.0	-13.5	50.0
Dibromomethane	Ave	0.1890	0.1861		9.84	10.0	-1.6	50.0
Bromodichloromethane	Ave	0.5342	0.5359		10.0	10.0	0.3	50.0
2-Chloroethyl vinyl ether	Ave	0.1070	0.0999		9.33	10.0	-6.7	50.0
cis-1,3-Dichloropropene	Ave	1.785	1.684		9.43	10.0	-5.7	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1114	0.1113		40.0	40.0	-0.0	50.0
Toluene	Ave	1.047	1.004		9.59	10.0	-4.1	50.0
trans-1,3-Dichloropropene	Ave	0.2994	0.2960		9.89	10.0	-1.1	50.0
Ethyl methacrylate	Ave	1.006	0.8857		8.81	10.0	-11.9	50.0
1,1,2-Trichloroethane	Ave	0.1881	0.1864		9.91	10.0	-0.9	50.0
1,3-Dichloropropane	Ave	1.288	1.229		9.54	10.0	-4.6	50.0
Tetrachloroethene	Ave	1.578	1.559		9.88	10.0	-1.2	50.0
2-Hexanone	Ave	0.2986	0.2661		35.6	40.0	-10.9	50.0
Chlorodibromomethane	Ave	1.545	1.568		10.1	10.0	1.5	50.0
1,2-Dibromoethane	Ave	1.021	0.9913		9.71	10.0	-2.9	50.0
1-Chlorohexane	Ave	2.012	1.782		8.86	10.0	-11.4	50.0
Chlorobenzene	Ave	3.064	2.933	0.3000	9.57	10.0	-4.3	50.0
1,1,1,2-Tetrachloroethane	Ave	1.522	1.590		10.4	10.0	4.5	50.0
Ethylbenzene	Ave	1.507	1.371		9.10	10.0	-9.0	50.0
m-Xylene & p-Xylene	Ave	1.996	1.873		9.39	10.0	-6.1	50.0
o-Xylene	Ave	1.732	1.678		9.69	10.0	-3.1	50.0
Styrene	Ave	2.743	2.697		9.83	10.0	-1.7	50.0
Bromoform	Ave	0.8142	0.8716	0.1000	10.7	10.0	7.0	50.0
Isopropylbenzene	Ave	3.243	2.651		8.18	10.0	-18.2	50.0
Cyclohexanone	Lin1		0.0111		367	400	-8.2	50.0
Bromobenzene	Ave	0.8591	0.8019		9.33	10.0	-6.7	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5910	0.4940	0.3000	8.36	10.0	-16.4	50.0
1,2,3-Trichloropropane	Ave	0.1359	0.1210		8.90	10.0	-11.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1050	0.0960		9.14	10.0	-8.6	50.0
N-Propylbenzene	Ave	0.8699	0.7396		8.50	10.0	-15.0	50.0
2-Chlorotoluene	Ave	0.7341	0.6596		8.98	10.0	-10.2	50.0
4-Chlorotoluene	Ave	0.8332	0.7582		9.10	10.0	-9.0	50.0
1,3,5-Trimethylbenzene	Ave	2.513	2.104		8.37	10.0	-16.3	50.0
tert-Butylbenzene	Ave	2.922	2.471		8.46	10.0	-15.4	50.0
1,2,4-Trimethylbenzene	Ave	2.432	2.023		8.32	10.0	-16.8	50.0
sec-Butylbenzene	Ave	0.7850	0.7037		8.96	10.0	-10.4	50.0
1,3-Dichlorobenzene	Ave	1.468	1.421		9.68	10.0	-3.2	50.0
p-Isopropyltoluene	Ave	3.314	2.786		8.41	10.0	-15.9	50.0
1,4-Dichlorobenzene	Ave	1.760	1.641		9.33	10.0	-6.7	50.0
1,2-Dichlorobenzene	Ave	1.283	1.209		9.42	10.0	-5.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCVC 280-278072/26 Calibration Date: 05/19/2015 14:28

Instrument ID: VMS_Z Calib Start Date: 05/14/2015 08:19

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/14/2015 10:35

Lab File ID: Z7732.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	2.848	2.329		8.18	10.0	-18.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0982	0.0973		9.91	10.0	-0.9	50.0
1,2,4-Trichlorobenzene	Ave	0.8943	0.8089		9.04	10.0	-9.6	50.0
Hexachlorobutadiene	Ave	0.8679	0.7453		8.59	10.0	-14.1	50.0
Naphthalene	Ave	0.8574	0.7888		9.20	10.0	-8.0	50.0
1,2,3-Trichlorobenzene	Ave	0.6829	0.6100		8.93	10.0	-10.7	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 19-May-2015 14:28:30 ALS Bottle#: 22 Worklist Smp#: 26
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:56:33 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: bergerb Date: 19-May-2015 15:54:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.503	3.503	0.000	87	101123	250.0	250.0	
* 2 Fluorobenzene	96	6.392	6.392	0.000	98	563285	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.020	0.000	86	143698	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.127	0.000	94	272493	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.469	5.469	0.000	94	306531	10.5	11.3	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.904	0.000	96	120586	10.5	11.6	
$ 10 Toluene-d8 (Surr)	98	8.706	8.706	0.000	92	547149	10.5	11.3	
$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.056	0.000	94	300100	10.5	10.0	
27 Dichlorodifluoromethane	85	1.920	1.920	0.000	98	180479	10.0	8.42	
30 Chloromethane	50	1.989	1.989	0.000	100	99988	10.0	7.18	M
31 Butadiene	54	2.094	2.094	0.000	83	65317	NC	NC	
32 Vinyl chloride	62	2.111	2.111	0.000	98	104683	10.0	7.79	
35 Bromomethane	94	2.337	2.337	0.000	90	134068	10.0	9.28	
36 Chloroethane	64	2.389	2.389	0.000	98	77230	10.0	8.39	
37 Dichlorofluoromethane	67	2.546	2.546	0.000	98	314577	10.0	8.52	
38 Trichlorofluoromethane	101	2.598	2.598	0.000	99	268227	10.0	8.43	
40 Ethyl ether	59	2.807	2.807	0.000	89	54091	10.0	8.88	
44 Acrolein	56	2.911	2.911	0.000	99	29165	100.0	80.8	
45 1,1-Dichloroethene	96	3.033	3.033	0.000	98	136282	10.0	9.18	
48 Acetone	43	3.051	3.051	0.000	31	27198	40.0	40.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.085	3.085	0.000	94	226039	10.0	10.1	
49 Iodomethane	142	3.190	3.190	0.000	98	411118	10.0	10.6	
50 Carbon disulfide	76	3.277	3.277	0.000	98	468176	10.0	9.26	
52 3-Chloro-1-propene	41	3.346	3.346	0.000	85	184976	10.0	8.46	
51 Methyl acetate	43	3.364	3.364	0.000	68	127717	50.0	42.0	
54 Methylene Chloride	84	3.468	3.468	0.000	88	125808	10.0	9.93	
55 2-Methyl-2-propanol	59	3.573	3.573	0.000	91	24633	100.0	85.3	
58 Acrylonitrile	53	3.694	3.694	0.000	98	92650	100.0	94.6	
57 trans-1,2-Dichloroethene	96	3.764	3.764	0.000	100	154593	10.0	9.63	
56 Methyl tert-butyl ether	73	3.781	3.781	0.000	93	216684	10.0	9.47	
59 Hexane	57	4.060	4.060	0.000	91	180459	10.0	7.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.199	4.199	0.000	96	261503	10.0	9.19	
61 Vinyl acetate	43	4.234	4.234	0.000	96	205668	20.0	15.0	
65 cis-1,2-Dichloroethene	96	4.878	4.878	0.000	83	151349	10.0	9.57	
67 2-Butanone (MEK)	43	4.878	4.878	0.000	52	60868	40.0	36.8	
66 2,2-Dichloropropane	77	4.913	4.913	0.000	86	243340	10.0	9.75	
70 sec-Butyl Alcohol	45	5.121	5.121	0.000	95	87854	300.0	275.3	
71 Chlorobromomethane	128	5.174	5.174	0.000	86	82060	10.0	10.8	
74 Chloroform	83	5.261	5.261	0.000	94	278902	10.0	9.92	
72 Tetrahydrofuran	42	5.261	5.261	0.000	36	21952	20.0	20.0	
75 1,1,1-Trichloroethane	97	5.556	5.556	0.000	98	258859	10.0	9.27	
76 Cyclohexane	56	5.643	5.643	0.000	87	208113	10.0	8.12	
78 1,1-Dichloropropene	75	5.748	5.748	0.000	98	208357	10.0	9.05	
77 Carbon tetrachloride	117	5.783	5.783	0.000	97	255974	10.0	9.24	
80 Isobutyl alcohol	41	5.870	5.870	0.000	39	26316	250.0	249.6	
82 1,2-Dichloroethane	62	6.009	6.009	0.000	95	105670	10.0	9.48	
81 Benzene	78	6.026	6.026	0.000	94	425631	10.0	9.63	
84 n-Heptane	43	6.409	6.409	0.000	89	216341	10.0	8.37	
85 Trichloroethene	95	6.914	6.914	0.000	94	185794	10.0	9.64	
89 2-Pentanone	43	7.140	7.140	0.000	99	130460	40.0	36.5	
90 1,2-Dichloropropane	63	7.209	7.209	0.000	94	139775	10.0	9.17	
87 Methylcyclohexane	55	7.227	7.227	0.000	90	188724	10.0	8.65	
92 Dibromomethane	93	7.366	7.366	0.000	93	83838	10.0	9.84	
94 Dichlorobromomethane	83	7.610	7.610	0.000	100	241476	10.0	10.0	
96 2-Chloroethyl vinyl ether	63	8.062	8.062	0.000	92	45006	10.0	9.33	
97 cis-1,3-Dichloropropene	75	8.271	8.271	0.000	97	193640	10.0	9.43	
98 4-Methyl-2-pentanone (MIBK	43	8.532	8.532	0.000	96	200587	40.0	40.0	
99 Toluene	91	8.810	8.810	0.000	99	452509	10.0	9.59	
100 trans-1,3-Dichloropropene	75	9.123	9.123	0.000	91	133374	10.0	9.89	
101 Ethyl methacrylate	69	9.332	9.332	0.000	87	101817	10.0	8.81	
102 1,1,2-Trichloroethane	97	9.419	9.419	0.000	89	83989	10.0	9.91	
104 1,3-Dichloropropane	76	9.680	9.680	0.000	89	141306	10.0	9.54	
103 Tetrachloroethene	164	9.698	9.698	0.000	96	179223	10.0	9.88	
105 2-Hexanone	43	9.854	9.854	0.000	95	122350	40.0	35.6	
107 Chlorodibromomethane	129	10.063	10.063	0.000	89	180275	10.0	10.1	
109 Ethylene Dibromide	107	10.237	10.237	0.000	98	113962	10.0	9.71	
110 1-Chlorohexane	91	11.072	11.072	0.000	94	204845	10.0	8.86	
111 Chlorobenzene	112	11.072	11.072	0.000	95	337116	10.0	9.57	
113 1,1,1,2-Tetrachloroethane	131	11.212	11.212	0.000	94	182742	10.0	10.4	
112 Ethylbenzene	106	11.281	11.281	0.000	98	157601	10.0	9.10	
114 m-Xylene & p-Xylene	106	11.490	11.490	0.000	99	215345	10.0	9.39	
115 o-Xylene	106	12.151	12.151	0.000	96	192942	10.0	9.69	
116 Styrene	104	12.169	12.169	0.000	93	309994	10.0	9.83	
117 Bromoform	173	12.464	12.464	0.000	97	100197	10.0	10.7	
118 Isopropylbenzene	105	12.812	12.812	0.000	96	577903	10.0	8.18	
119 Cyclohexanone	55	12.934	12.934	0.000	88	51110	400.0	367.4	
121 Bromobenzene	156	13.300	13.300	0.000	94	174819	10.0	9.33	
122 1,1,2,2-Tetrachloroethane	83	13.317	13.317	0.000	95	107689	10.0	8.36	
124 1,2,3-Trichloropropane	110	13.369	13.369	0.000	81	26372	10.0	8.90	
125 trans-1,4-Dichloro-2-buten	53	13.421	13.421	0.000	69	20926	10.0	9.14	
123 N-Propylbenzene	120	13.543	13.543	0.000	99	161225	10.0	8.50	
126 2-Chlorotoluene	126	13.665	13.665	0.000	67	143781	10.0	8.98	a
128 4-Chlorotoluene	126	13.856	13.856	0.000	98	165276	10.0	9.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.874	13.874	0.000	96	458583	10.0	8.37	
129 tert-Butylbenzene	119	14.448	14.448	0.000	93	538719	10.0	8.46	
130 1,2,4-Trimethylbenzene	105	14.535	14.535	0.000	95	441029	10.0	8.32	
131 sec-Butylbenzene	134	14.848	14.848	0.000	94	153395	10.0	8.96	
132 1,3-Dichlorobenzene	146	15.005	15.005	0.000	96	309808	10.0	9.68	
133 4-Isopropyltoluene	119	15.127	15.127	0.000	96	607352	10.0	8.41	
134 1,4-Dichlorobenzene	146	15.162	15.162	0.000	96	357809	10.0	9.33	
138 1,2-Dichlorobenzene	146	15.805	15.805	0.000	98	263636	10.0	9.42	
137 n-Butylbenzene	91	15.858	15.858	0.000	97	507814	10.0	8.18	
139 1,2-Dibromo-3-Chloropropan	157	16.936	16.936	0.000	91	21206	10.0	9.91	
141 1,2,4-Trichlorobenzene	180	17.876	17.876	0.000	95	176326	10.0	9.04	
142 Hexachlorobutadiene	225	18.067	18.067	0.000	97	162460	10.0	8.59	
143 Naphthalene	128	18.102	18.102	0.000	97	171955	10.0	9.20	
144 1,2,3-Trichlorobenzene	180	18.346	18.346	0.000	96	132974	10.0	8.93	
93 1,4-Dioxane	88		18.432				ND	ND	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.2	
S 146 Xylenes, Total	106				0		20.0	19.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.2	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.3	
S 149 Trihalomethanes, Total	1				0		40.0	40.8	
S 150 Xylenes, Total (URS)	1				0		20.0	19.1	
S 151 Total BTEX	1				0			47.4	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

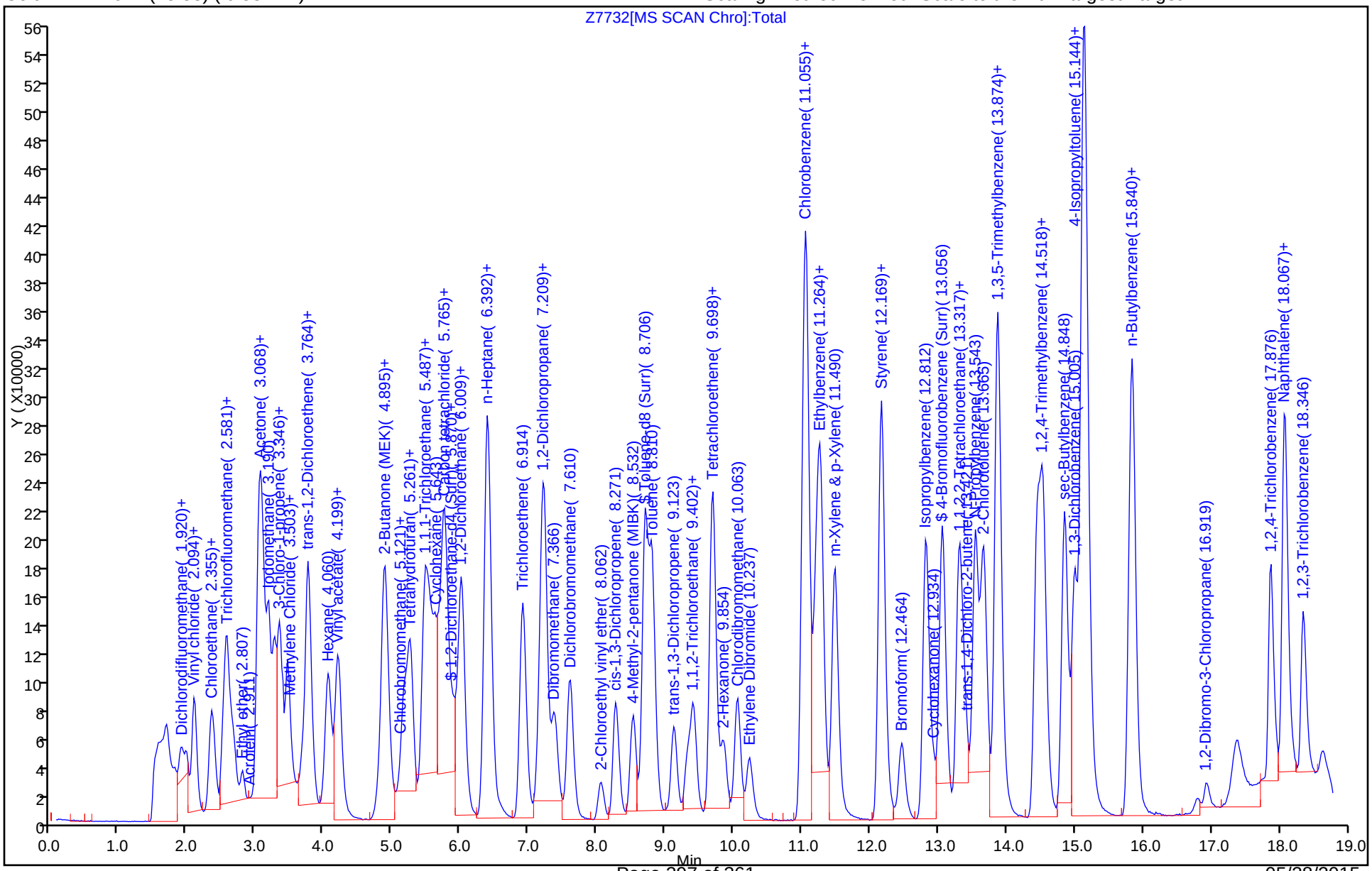
MV-Main A_00022	Amount Added:	5.00	Units: uL	
MV-Gas/Ket A_00033	Amount Added:	5.00	Units: uL	
MV-2cleve+AVA_00009	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D				
Injection Date:	19-May-2015 14:28:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ccvc			Worklist Smp#:	26
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

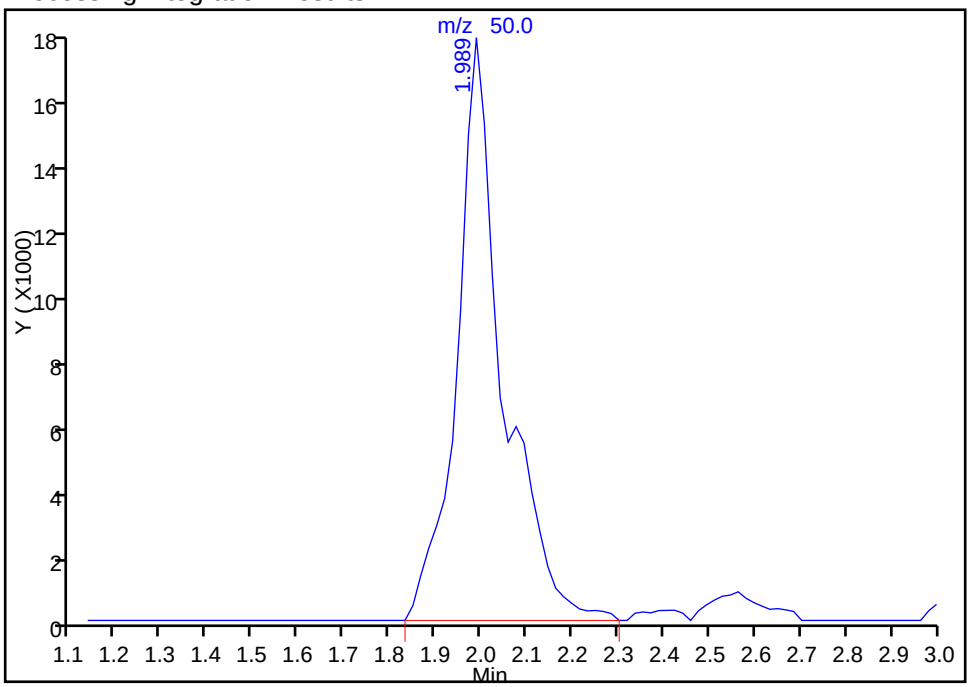
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D				
Injection Date:	19-May-2015 14:28:30	Instrument ID:	VMS_Z		
Lims ID:	ccvc				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	22	Worklist Smp#:	26
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

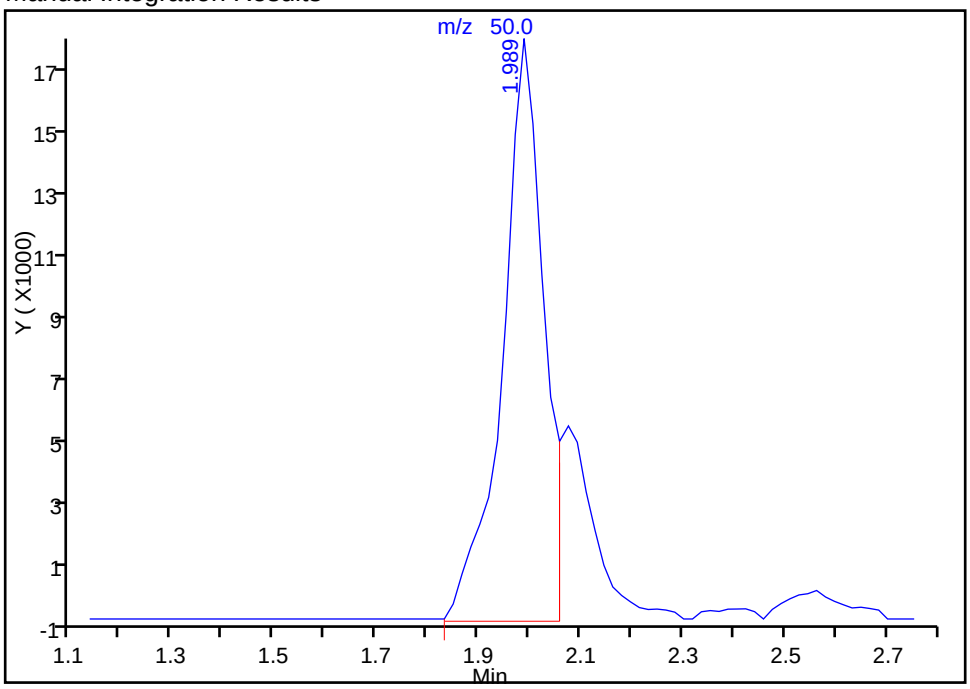
Processing Integration Results

RT: 1.99
Area: 122929
Amount: 8.829740
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 99988
Amount: 7.181935
Amount Units: ug/l



Reviewer: moanm, 20-May-2015 06:48:32
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

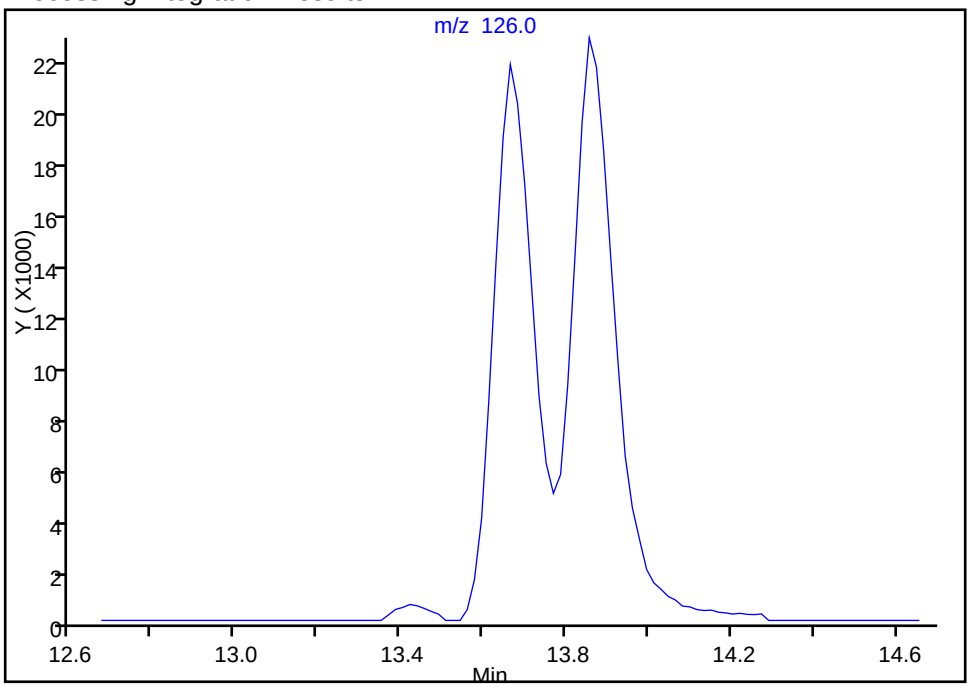
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D				
Injection Date:	19-May-2015 14:28:30	Instrument ID:	VMS_Z		
Lims ID:	ccvc				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	22	Worklist Smp#:	26
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

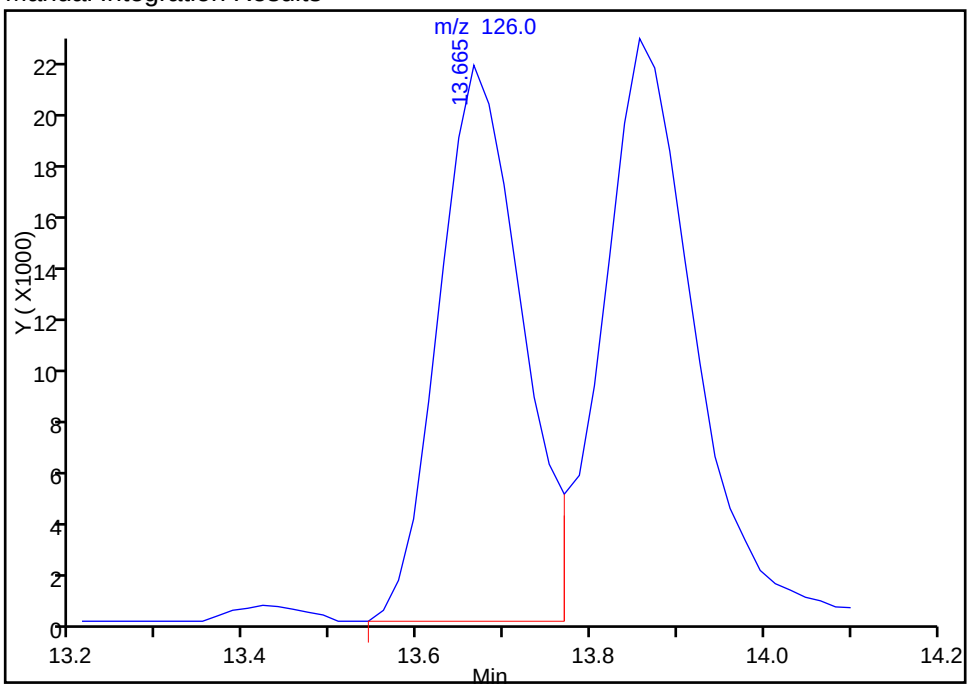
Processing Integration Results

Not Detected
Expected RT: 13.67



Manual Integration Results

RT: 13.67
Area: 143781
Amount: 8.984653
Amount Units: ug/l



Reviewer: bergerb, 19-May-2015 15:54:31
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Lab Sample ID: CCVC 280-278072/26 Calibration Date: 05/19/2015 14:28

Instrument ID: VMS_Z Calib Start Date: 05/18/2015 10:39

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/18/2015 12:10

Lab File ID: Z7732.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.6023	0.6478		11.3	10.5	7.6	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2298	0.2549		11.6	10.5	10.9	50.0
Toluene-d8 (Surr)	Ave	4.221	4.533		11.3	10.5	7.4	50.0
4-Bromofluorobenzene (Surr)	Ave	1.376	1.311		10.0	10.5	-4.7	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 19-May-2015 14:28:30 ALS Bottle#: 22 Worklist Smp#: 26
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Operator ID: moanm Instrument ID: VMS_Z
Sublist: chrom-AQ_VMSZ_8260*sub71

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2015 06:56:33 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: bergerb Date: 19-May-2015 15:54:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.503	3.503	0.000	87	101123	250.0	250.0	
* 2 Fluorobenzene	96	6.392	6.392	0.000	98	563285	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.020	0.000	86	143698	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.127	0.000	94	272493	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.469	5.469	0.000	94	306531	10.5	11.3	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.904	0.000	96	120586	10.5	11.6	
$ 10 Toluene-d8 (Surr)	98	8.706	8.706	0.000	92	547149	10.5	11.3	
$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.056	0.000	94	300100	10.5	10.0	
27 Dichlorodifluoromethane	85	1.920	1.920	0.000	98	180479	10.0	8.42	
30 Chloromethane	50	1.989	1.989	0.000	100	99988	10.0	7.18	M
31 Butadiene	54	2.094	2.094	0.000	83	65317	NC	NC	
32 Vinyl chloride	62	2.111	2.111	0.000	98	104683	10.0	7.79	
35 Bromomethane	94	2.337	2.337	0.000	90	134068	10.0	9.28	
36 Chloroethane	64	2.389	2.389	0.000	98	77230	10.0	8.39	
37 Dichlorofluoromethane	67	2.546	2.546	0.000	98	314577	10.0	8.52	
38 Trichlorofluoromethane	101	2.598	2.598	0.000	99	268227	10.0	8.43	
40 Ethyl ether	59	2.807	2.807	0.000	89	54091	10.0	8.88	
44 Acrolein	56	2.911	2.911	0.000	99	29165	100.0	80.8	
45 1,1-Dichloroethene	96	3.033	3.033	0.000	98	136282	10.0	9.18	
48 Acetone	43	3.051	3.051	0.000	31	27198	40.0	40.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.085	3.085	0.000	94	226039	10.0	10.1	
49 Iodomethane	142	3.190	3.190	0.000	98	411118	10.0	10.6	
50 Carbon disulfide	76	3.277	3.277	0.000	98	468176	10.0	9.26	
52 3-Chloro-1-propene	41	3.346	3.346	0.000	85	184976	10.0	8.46	
51 Methyl acetate	43	3.364	3.364	0.000	68	127717	50.0	42.0	
54 Methylene Chloride	84	3.468	3.468	0.000	88	125808	10.0	9.93	
55 2-Methyl-2-propanol	59	3.573	3.573	0.000	91	24633	100.0	85.3	
58 Acrylonitrile	53	3.694	3.694	0.000	98	92650	100.0	94.6	
57 trans-1,2-Dichloroethene	96	3.764	3.764	0.000	100	154593	10.0	9.63	
56 Methyl tert-butyl ether	73	3.781	3.781	0.000	93	216684	10.0	9.47	
59 Hexane	57	4.060	4.060	0.000	91	180459	10.0	7.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.199	4.199	0.000	96	261503	10.0	9.19	
61 Vinyl acetate	43	4.234	4.234	0.000	96	205668	20.0	15.0	
65 cis-1,2-Dichloroethene	96	4.878	4.878	0.000	83	151349	10.0	9.57	
67 2-Butanone (MEK)	43	4.878	4.878	0.000	52	60868	40.0	36.8	
66 2,2-Dichloropropane	77	4.913	4.913	0.000	86	243340	10.0	9.75	
70 sec-Butyl Alcohol	45	5.121	5.121	0.000	95	87854	300.0	275.3	
71 Chlorobromomethane	128	5.174	5.174	0.000	86	82060	10.0	10.8	
74 Chloroform	83	5.261	5.261	0.000	94	278902	10.0	9.92	
72 Tetrahydrofuran	42	5.261	5.261	0.000	36	21952	20.0	20.0	
75 1,1,1-Trichloroethane	97	5.556	5.556	0.000	98	258859	10.0	9.27	
76 Cyclohexane	56	5.643	5.643	0.000	87	208113	10.0	8.12	
78 1,1-Dichloropropene	75	5.748	5.748	0.000	98	208357	10.0	9.05	
77 Carbon tetrachloride	117	5.783	5.783	0.000	97	255974	10.0	9.24	
80 Isobutyl alcohol	41	5.870	5.870	0.000	39	26316	250.0	249.6	
82 1,2-Dichloroethane	62	6.009	6.009	0.000	95	105670	10.0	9.48	
81 Benzene	78	6.026	6.026	0.000	94	425631	10.0	9.63	
84 n-Heptane	43	6.409	6.409	0.000	89	216341	10.0	8.37	
85 Trichloroethene	95	6.914	6.914	0.000	94	185794	10.0	9.64	
89 2-Pentanone	43	7.140	7.140	0.000	99	130460	40.0	36.5	
90 1,2-Dichloropropane	63	7.209	7.209	0.000	94	139775	10.0	9.17	
87 Methylcyclohexane	55	7.227	7.227	0.000	90	188724	10.0	8.65	
92 Dibromomethane	93	7.366	7.366	0.000	93	83838	10.0	9.84	
94 Dichlorobromomethane	83	7.610	7.610	0.000	100	241476	10.0	10.0	
96 2-Chloroethyl vinyl ether	63	8.062	8.062	0.000	92	45006	10.0	9.33	
97 cis-1,3-Dichloropropene	75	8.271	8.271	0.000	97	193640	10.0	9.43	
98 4-Methyl-2-pentanone (MIBK	43	8.532	8.532	0.000	96	200587	40.0	40.0	
99 Toluene	91	8.810	8.810	0.000	99	452509	10.0	9.59	
100 trans-1,3-Dichloropropene	75	9.123	9.123	0.000	91	133374	10.0	9.89	
101 Ethyl methacrylate	69	9.332	9.332	0.000	87	101817	10.0	8.81	
102 1,1,2-Trichloroethane	97	9.419	9.419	0.000	89	83989	10.0	9.91	
104 1,3-Dichloropropane	76	9.680	9.680	0.000	89	141306	10.0	9.54	
103 Tetrachloroethene	164	9.698	9.698	0.000	96	179223	10.0	9.88	
105 2-Hexanone	43	9.854	9.854	0.000	95	122350	40.0	35.6	
107 Chlorodibromomethane	129	10.063	10.063	0.000	89	180275	10.0	10.1	
109 Ethylene Dibromide	107	10.237	10.237	0.000	98	113962	10.0	9.71	
110 1-Chlorohexane	91	11.072	11.072	0.000	94	204845	10.0	8.86	
111 Chlorobenzene	112	11.072	11.072	0.000	95	337116	10.0	9.57	
113 1,1,1,2-Tetrachloroethane	131	11.212	11.212	0.000	94	182742	10.0	10.4	
112 Ethylbenzene	106	11.281	11.281	0.000	98	157601	10.0	9.10	
114 m-Xylene & p-Xylene	106	11.490	11.490	0.000	99	215345	10.0	9.39	
115 o-Xylene	106	12.151	12.151	0.000	96	192942	10.0	9.69	
116 Styrene	104	12.169	12.169	0.000	93	309994	10.0	9.83	
117 Bromoform	173	12.464	12.464	0.000	97	100197	10.0	10.7	
118 Isopropylbenzene	105	12.812	12.812	0.000	96	577903	10.0	8.18	
119 Cyclohexanone	55	12.934	12.934	0.000	88	51110	400.0	367.4	
121 Bromobenzene	156	13.300	13.300	0.000	94	174819	10.0	9.33	
122 1,1,2,2-Tetrachloroethane	83	13.317	13.317	0.000	95	107689	10.0	8.36	
124 1,2,3-Trichloropropane	110	13.369	13.369	0.000	81	26372	10.0	8.90	
125 trans-1,4-Dichloro-2-buten	53	13.421	13.421	0.000	69	20926	10.0	9.14	
123 N-Propylbenzene	120	13.543	13.543	0.000	99	161225	10.0	8.50	
126 2-Chlorotoluene	126	13.665	13.665	0.000	67	143781	10.0	8.98	a
128 4-Chlorotoluene	126	13.856	13.856	0.000	98	165276	10.0	9.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.874	13.874	0.000	96	458583	10.0	8.37	
129 tert-Butylbenzene	119	14.448	14.448	0.000	93	538719	10.0	8.46	
130 1,2,4-Trimethylbenzene	105	14.535	14.535	0.000	95	441029	10.0	8.32	
131 sec-Butylbenzene	134	14.848	14.848	0.000	94	153395	10.0	8.96	
132 1,3-Dichlorobenzene	146	15.005	15.005	0.000	96	309808	10.0	9.68	
133 4-Isopropyltoluene	119	15.127	15.127	0.000	96	607352	10.0	8.41	
134 1,4-Dichlorobenzene	146	15.162	15.162	0.000	96	357809	10.0	9.33	
138 1,2-Dichlorobenzene	146	15.805	15.805	0.000	98	263636	10.0	9.42	
137 n-Butylbenzene	91	15.858	15.858	0.000	97	507814	10.0	8.18	
139 1,2-Dibromo-3-Chloropropan	157	16.936	16.936	0.000	91	21206	10.0	9.91	
141 1,2,4-Trichlorobenzene	180	17.876	17.876	0.000	95	176326	10.0	9.04	
142 Hexachlorobutadiene	225	18.067	18.067	0.000	97	162460	10.0	8.59	
143 Naphthalene	128	18.102	18.102	0.000	97	171955	10.0	9.20	
144 1,2,3-Trichlorobenzene	180	18.346	18.346	0.000	96	132974	10.0	8.93	
93 1,4-Dioxane	88		18.432				ND	ND	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.2	
S 146 Xylenes, Total	106				0		20.0	19.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.2	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.3	
S 149 Trihalomethanes, Total	1				0		40.0	40.8	
S 150 Xylenes, Total (URS)	1				0		20.0	19.1	
S 151 Total BTEX	1				0			47.4	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

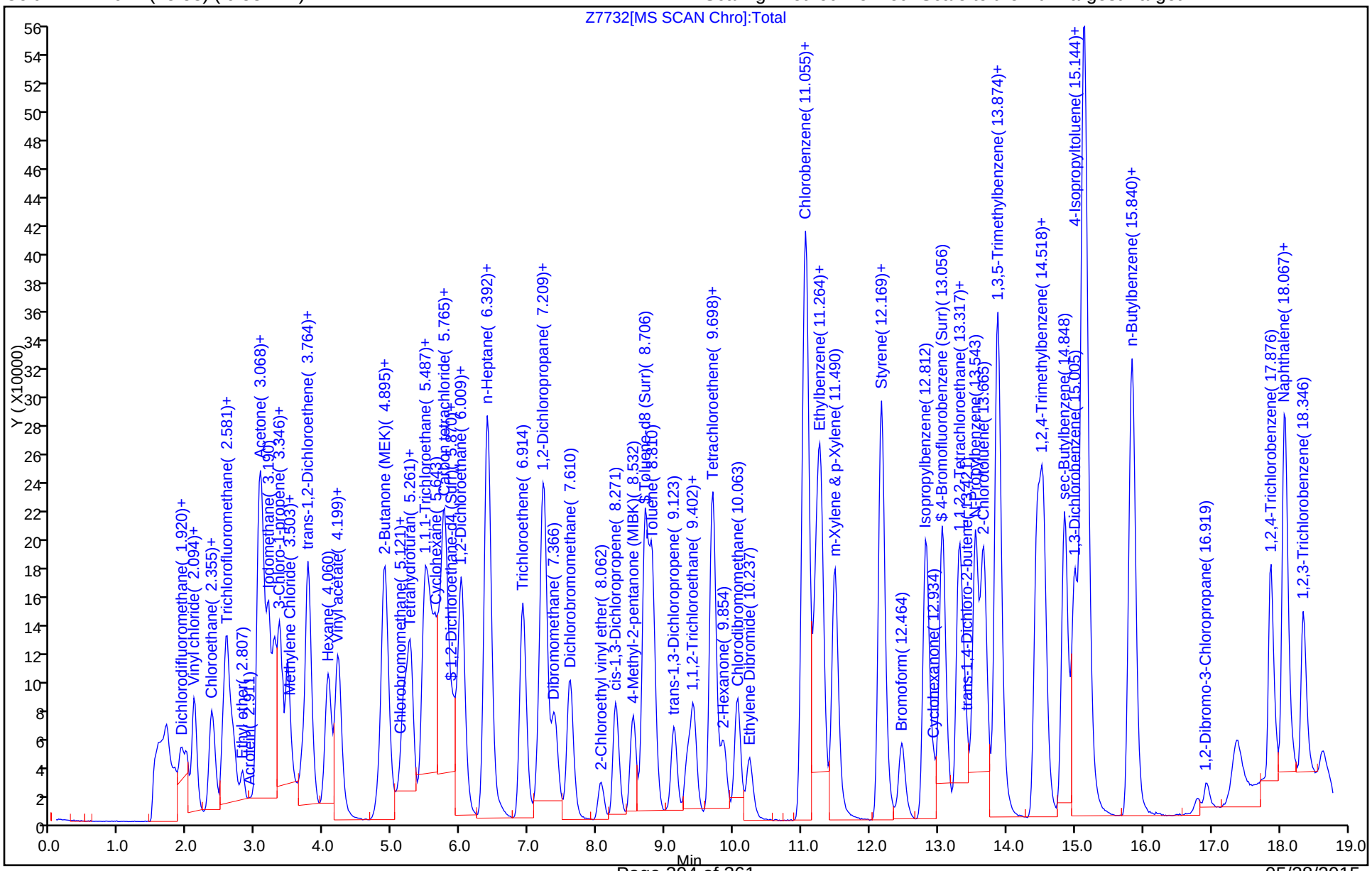
MV-Main A_00022	Amount Added:	5.00	Units: uL	
MV-Gas/Ket A_00033	Amount Added:	5.00	Units: uL	
MV-2cleve+AVA_00009	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 20-May-2015 06:56:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7732.D				
Injection Date:	19-May-2015 14:28:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	ccvc			Worklist Smp#:	26
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6760.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Apr-2015 06:31:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	bfb				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Method:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	27-Apr-2015 21:05:23	Calib Date:	27-Apr-2015 13:21:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6778.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK036				

First Level Reviewer: bergerb Date: 27-Apr-2015 21:05:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.545	2.545	0.000	80	157954	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

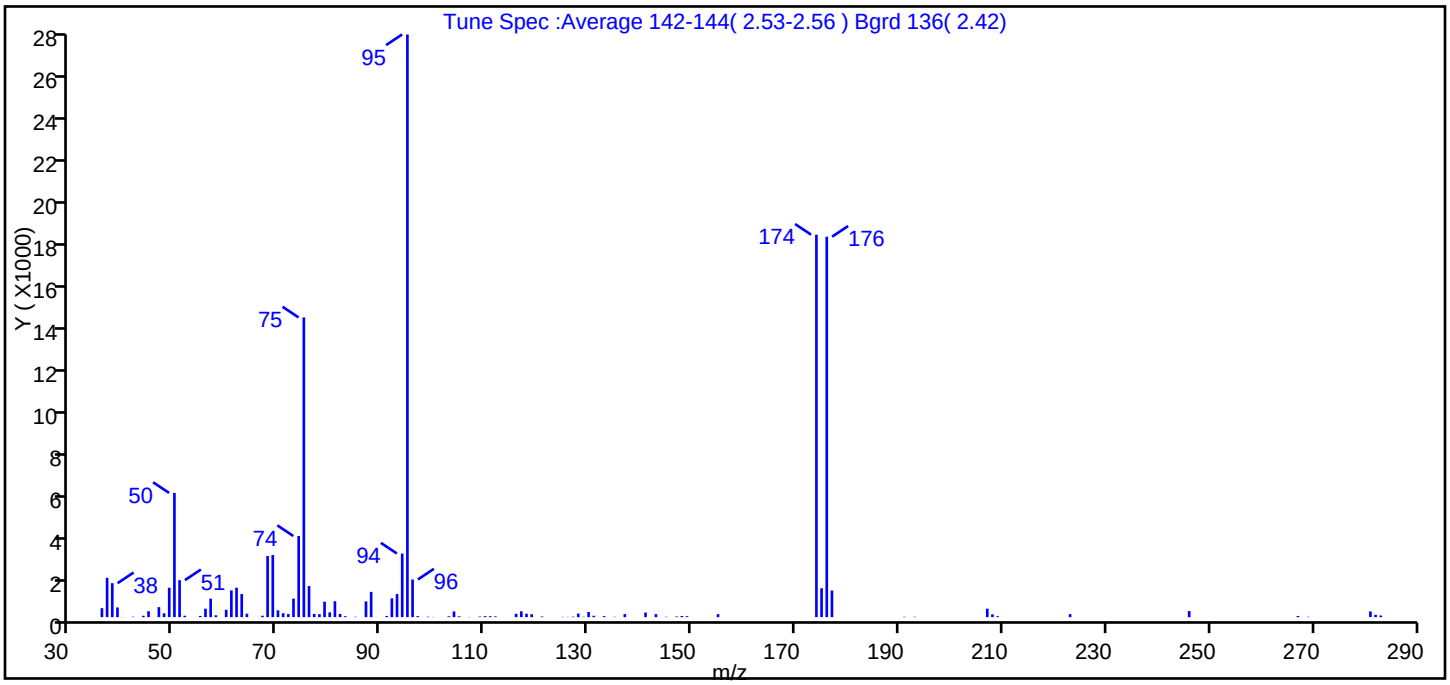
MV-BFB_00018 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6760.D				
Injection Date:	27-Apr-2015 06:31:30	Instrument ID:	VMS_Z		
Lims ID:	BFB				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Tune Method:	BFB Method 8260				

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.3
75	30 to 60% of m/z 95	51.4
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	65.6
175	5 to 9% of m/z 174	5.0 (7.6)
176	Greater than 95% but less than 101% of m/z 174	65.3 (99.5)
177	5 to 9% of m/z 176	4.6 (7.0)

Data File: \\Denchrom\ChromData\VMS_Z\20150427-34370.b\Z6760.D\AQ_VMSZ_8260.rslt\spectra.d
Injection Date: 27-Apr-2015 06:31:30
Spectrum: Tune Spec :Average 142-144(2.53-2.56) Bgrd 136(2.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	427	69.00	2963	97.00	49	137.00	147
37.00	1877	70.00	325	99.00	23	141.00	220
38.00	1621	71.00	186	100.00	8	143.00	144
39.00	463	72.00	147	103.00	41	145.00	17
40.00	6	73.00	884	104.00	273	147.00	33
42.00	20	74.00	3870	105.00	40	148.00	57
44.00	65	75.00	14301	107.00	11	149.00	46
45.00	282	76.00	1484	109.00	28	155.00	143
47.00	477	77.00	156	110.00	49	174.00	18248
48.00	183	78.00	141	111.00	45	175.00	1378
49.00	1402	79.00	738	112.00	36	176.00	18152
50.00	5927	80.00	227	116.00	161	177.00	1272
51.00	1765	81.00	760	117.00	279	191.00	18
52.00	68	82.00	156	118.00	162	193.00	19
55.00	57	83.00	46	119.00	139	207.00	405
56.00	402	85.00	19	121.00	32	208.00	134
57.00	882	87.00	752	125.00	15	209.00	45
58.00	89	88.00	1206	126.00	11	223.00	143
60.00	351	89.00	4	127.00	24	246.00	290
61.00	1275	91.00	58	128.00	169	267.00	57
62.00	1405	92.00	895	129.00	17	269.00	18
63.00	1104	93.00	1101	130.00	242	281.00	272
64.00	162	94.00	3035	131.00	67	282.00	111
67.00	68	95.00	27800	133.00	48	283.00	78
68.00	2916	96.00	1797	135.00	16		

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7568.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	14-May-2015 07:49:30	ALS Bottle#:	99	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	bfb				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Method:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	15-May-2015 01:16:33	Calib Date:	14-May-2015 10:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7576.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK015				

First Level Reviewer: bergerb Date: 15-May-2015 01:16:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.580	2.580	0.000	81	112748	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

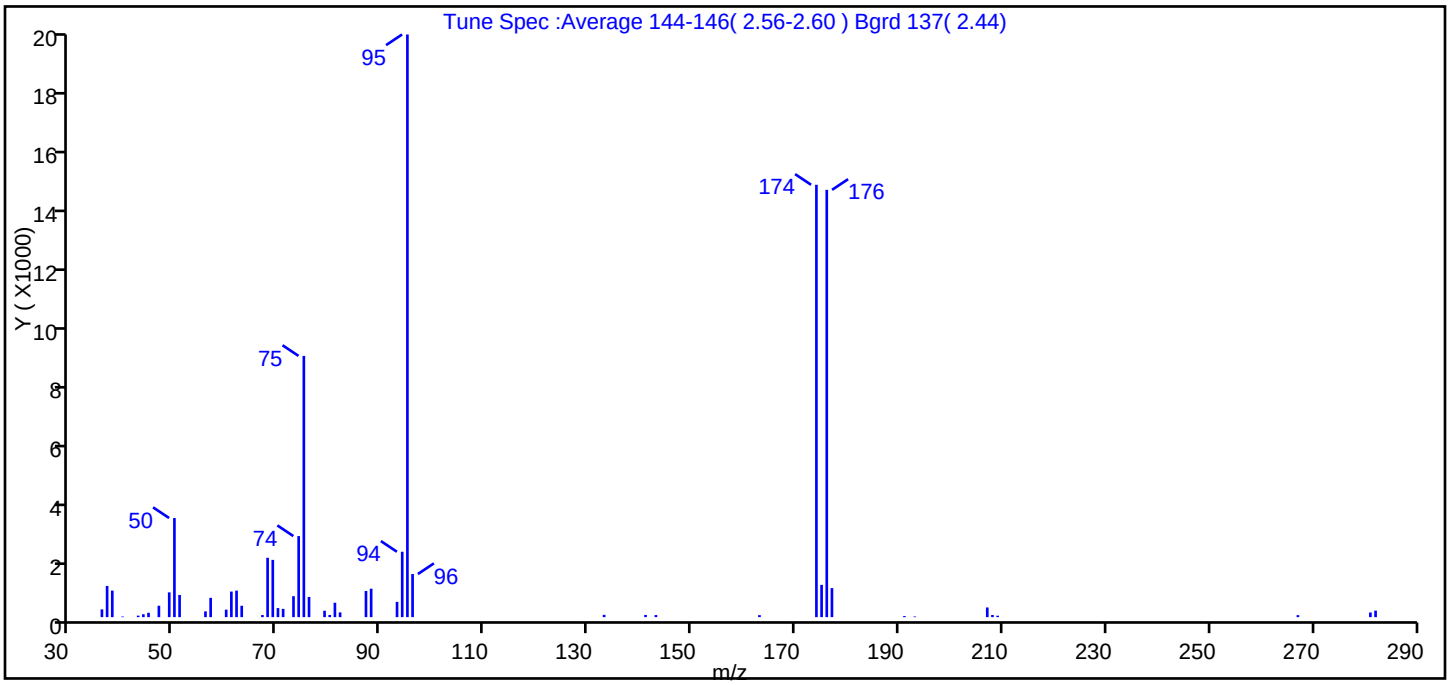
MV-BFB_00018 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7568.D				
Injection Date:	14-May-2015 07:49:30	Instrument ID:	VMS_Z		
Lims ID:	BFB				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	99	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Tune Method:	BFB Method 8260				

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.0
75	30 to 60% of m/z 95	44.8
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	74.2
175	5 to 9% of m/z 174	5.5 (7.5)
176	Greater than 95% but less than 101% of m/z 174	73.3 (98.8)
177	5 to 9% of m/z 176	5.0 (6.8)

Data File: \\Denchrom\ChromData\VMS_Z\20150514-34999.b\Z7568.D\AQ_VMSZ_8260.rslt\spectra.d
Injection Date: 14-May-2015 07:49:30
Spectrum: Tune Spec :Average 144-146(2.56-2.60) Bgrd 137(2.44)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 52

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	259	60.00	250	79.00	213	163.00	67
37.00	1038	61.00	851	80.00	72	174.00	14378
38.00	883	62.00	882	81.00	479	175.00	1074
40.00	20	63.00	378	82.00	158	176.00	14210
43.00	50	67.00	69	87.00	870	177.00	966
44.00	96	68.00	1974	88.00	946	191.00	36
45.00	144	69.00	1904	93.00	508	193.00	22
47.00	379	70.00	301	94.00	2175	207.00	322
49.00	824	71.00	275	95.00	19376	208.00	71
50.00	3296	73.00	697	96.00	1434	209.00	48
51.00	737	74.00	2696	133.00	77	267.00	67
56.00	192	75.00	8687	141.00	74	281.00	156
57.00	642	76.00	672	143.00	70	282.00	217

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7647.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	18-May-2015 07:01:30	ALS Bottle#:	99	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	bfb				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Method:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2015 13:03:47	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

First Level Reviewer: moanm Date: 18-May-2015 07:36:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.533	2.533	0.000	87	106816	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

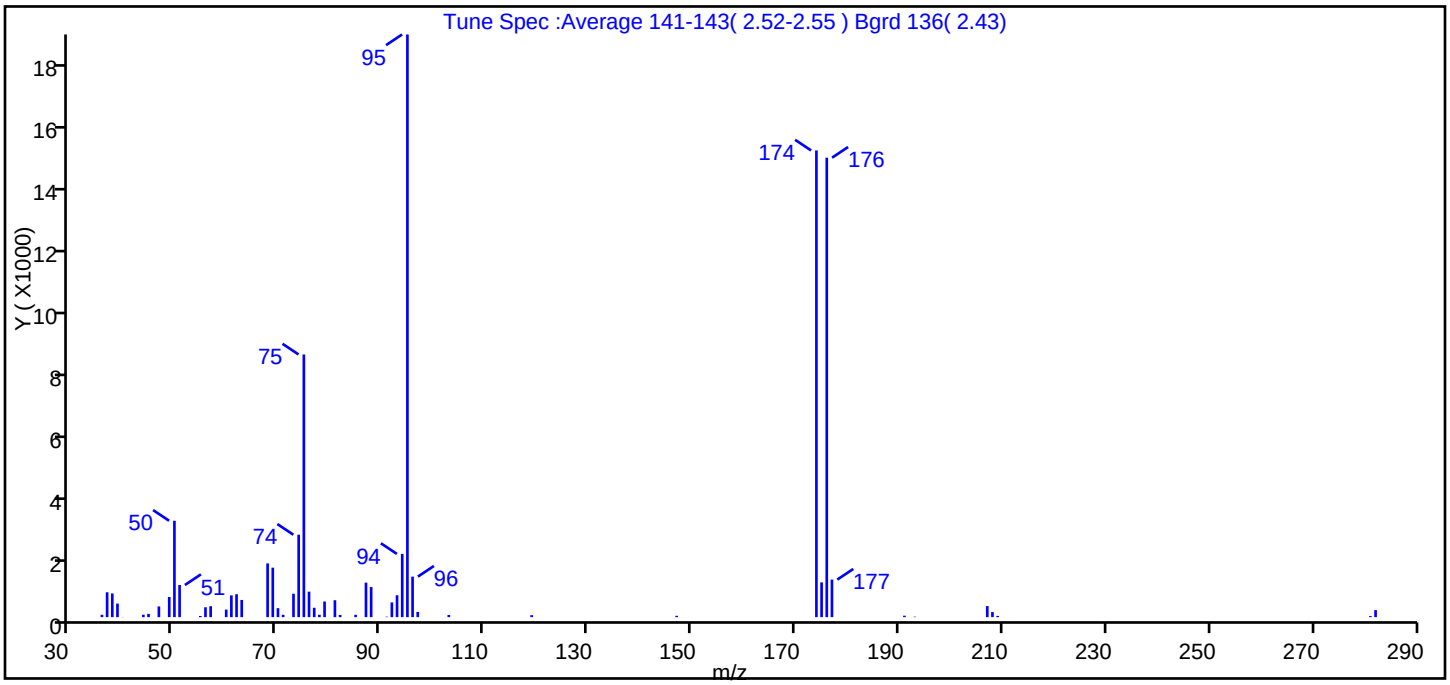
MV-BFB_00018 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7647.D				
Injection Date:	18-May-2015 07:01:30	Instrument ID:	VMS_Z		
Lims ID:	BFB				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	99	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Tune Method:	BFB Method 8260				

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.5
75	30 to 60% of m/z 95	45.1
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	80.1
175	5 to 9% of m/z 174	6.0 (7.4)
176	Greater than 95% but less than 101% of m/z 174	78.9 (98.5)
177	5 to 9% of m/z 176	6.4 (8.2)

Data File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7647.D\AQ_VMSZ_8260.rslt\spectra.d
Injection Date: 18-May-2015 07:01:30
Spectrum: Tune Spec :Average 141-143(2.52-2.55) Bgrd 136(2.43)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	73	60.00	236	79.00	489	119.00	62
37.00	778	61.00	681	81.00	529	147.00	43
38.00	741	62.00	717	82.00	68	174.00	14597
39.00	424	63.00	538	85.00	72	175.00	1087
40.00	4	68.00	1681	87.00	1079	176.00	14371
44.00	75	69.00	1547	88.00	941	177.00	1174
45.00	102	70.00	281	91.00	14	191.00	46
47.00	334	71.00	73	92.00	461	193.00	14
49.00	629	73.00	733	93.00	685	207.00	346
50.00	3015	74.00	2578	94.00	1977	208.00	159
51.00	1005	75.00	8216	95.00	18224	209.00	39
55.00	36	76.00	797	96.00	1267	281.00	33
56.00	309	77.00	293	97.00	164	282.00	220
57.00	342	78.00	74	103.00	68		

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7711.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-May-2015 06:46:30	ALS Bottle#:	98	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	bfb				
Operator ID:	moanm	Instrument ID:	VMS_Z		
Method:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	19-May-2015 11:10:11	Calib Date:	18-May-2015 12:10:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK021				

First Level Reviewer: moanm Date: 19-May-2015 06:53:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.587	2.587	0.000	88	85570	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

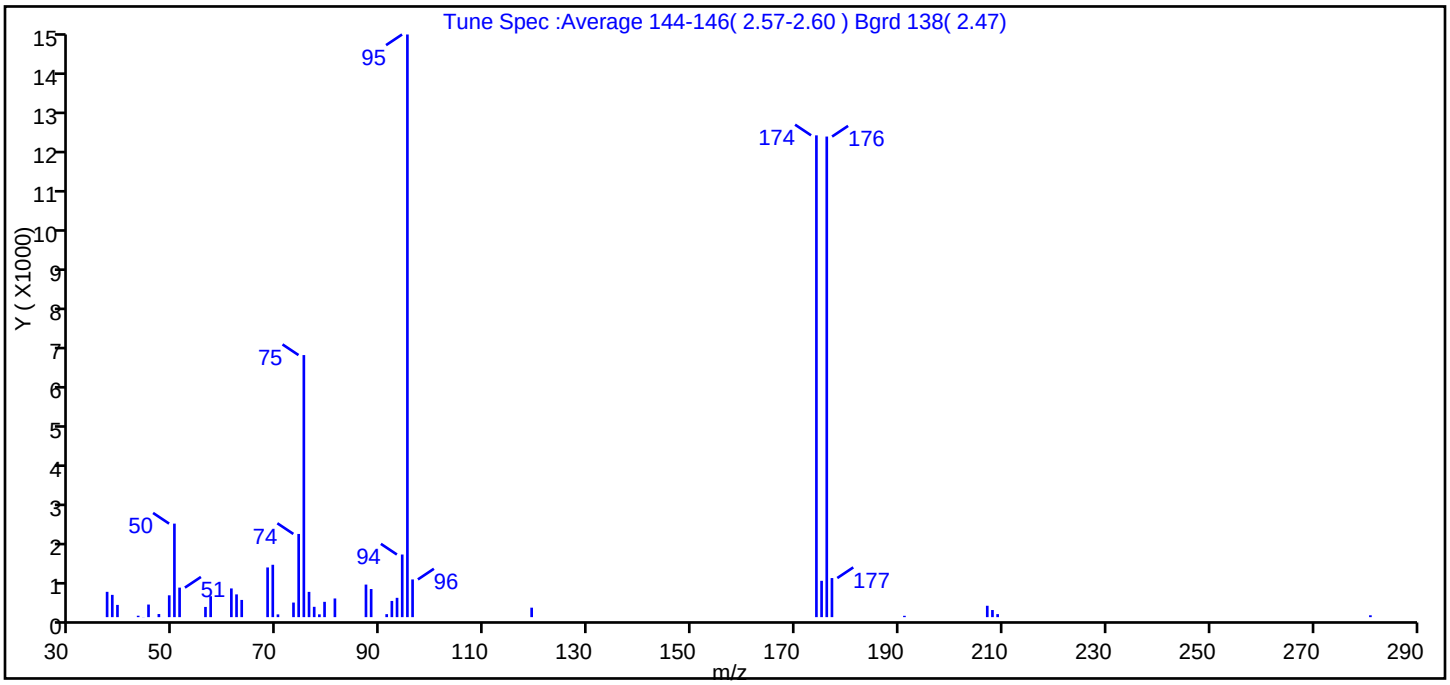
MV-BFB_00018 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7711.D				
Injection Date:	19-May-2015 06:46:30	Instrument ID:	VMS_Z		
Lims ID:	BFB				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	98	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Tune Method:	BFB Method 8260				

$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.1
75	30 to 60% of m/z 95	45.0
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	82.7
175	5 to 9% of m/z 174	6.2 (7.5)
176	Greater than 95% but less than 101% of m/z 174	82.5 (99.7)
177	5 to 9% of m/z 176	6.7 (8.1)

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7711.D\AQ_VMSZ_8260.rslt\spectra.d
Injection Date: 19-May-2015 06:46:30
Spectrum: Tune Spec :Average 144-146(2.57-2.60) Bgrd 138(2.47)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 44

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	625	57.00	517	77.00	255	96.00	931
38.00	550	61.00	709	78.00	69	119.00	234
39.00	302	62.00	562	79.00	378	174.00	11895
43.00	35	63.00	425	81.00	461	175.00	897
44.00	3	68.00	1227	87.00	804	176.00	11865
45.00	311	69.00	1293	88.00	694	177.00	965
47.00	77	70.00	68	91.00	74	191.00	33
49.00	539	73.00	360	92.00	400	207.00	281
50.00	2309	74.00	2054	93.00	477	208.00	176
51.00	729	75.00	6470	94.00	1546	209.00	75
56.00	252	76.00	624	95.00	14385	281.00	46

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: | Lab Sample ID: MB 280-278072/6
Matrix: Water | Lab File ID: Z7715.D
Analysis Method: 8260B | Date Collected:
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 08:01
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.189	J	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-278072/6

Matrix: Water | Lab File ID: Z7715.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 08:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

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

Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.589	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-278072/6

Matrix: Water | Lab File ID: Z7715.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 08:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

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

Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	107		80-119
2037-26-5	Toluene-d8 (Surr)	105		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7715.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-May-2015 08:01:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:13 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 08:41:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.503	3.491	0.012	92	115321	250.0	250.0	
* 2 Fluorobenzene	96	6.392	6.397	-0.005	98	607166	12.5	12.5	
* 3 1,4-Dioxane-d8	96	7.383	7.292	0.091	26	3443		0	
* 4 Chlorobenzene-d5	119	11.020	11.043	-0.023	85	159634	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.150	-0.023	94	280762	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.469	5.475	-0.006	94	327549	10.5	11.2	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.910	-0.006	94	122467	10.5	11.0	
$ 10 Toluene-d8 (Surr)	98	8.706	8.712	-0.006	92	593612	10.5	11.0	
$ 11 4-Bromofluorobenzene (Surr	95	13.074	13.079	-0.005	91	324157	10.5	10.5	
$ 6 Trifluorotoluene (Surr)	1		0.000					ND	
$ 7 BFB	95		2.587					ND	
26 Chlorotrifluoroethene	116		1.824					ND	
27 Dichlorodifluoromethane	85		1.905					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		1.946					ND	
30 Chloromethane	50		1.975					ND	
31 Butadiene	54		2.079					ND	
32 Vinyl chloride	62		2.097					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.102					ND	
34 Ethylene oxide	43		2.308					ND	
35 Bromomethane	94		2.340					ND	
36 Chloroethane	64		2.393					ND	
37 Dichlorofluoromethane	67		2.532					ND	
38 Trichlorofluoromethane	101		2.601					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		2.746					ND	
43 1,1,1-Trifluoro-2,2-dichlo	83		2.781					ND	
40 Ethyl ether	59		2.793					ND	
39 Ethanol	45		2.830					ND	
42 Propene oxide	58		2.865					ND	
44 Acrolein	56		2.915					ND	
45 1,1-Dichloroethene	96		3.036					ND	
48 Acetone	43		3.036					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.089					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
47 Isopropyl alcohol	45		3.154					ND	
49 Iodomethane	142		3.193					ND	
50 Carbon disulfide	76		3.263					ND	
53 Acetonitrile	41		3.317					ND	
52 3-Chloro-1-propene	41		3.350					ND	
51 Methyl acetate	43		3.350					ND	
54 Methylene Chloride	84	3.486	3.472	0.014	79	8042		0.5887	
55 2-Methyl-2-propanol	59		3.576					ND	
58 Acrylonitrile	53		3.680					ND	
57 trans-1,2-Dichloroethene	96		3.767					ND	
56 Methyl tert-butyl ether	73		3.785					ND	
59 Hexane	57		4.063					ND	
62 1,1-Dichloroethane	63		4.202					ND	
61 Vinyl acetate	43		4.220					ND	
60 Isopropyl ether	87		4.309					ND	
63 2-Chloro-1,3-butadiene	53		4.327					ND	
64 Tert-butyl ethyl ether	59		4.744					ND	
65 cis-1,2-Dichloroethene	96		4.881					ND	
67 2-Butanone (MEK)	43		4.881					ND	
66 2,2-Dichloropropane	77		4.898					ND	
69 Propionitrile	54		4.936					ND	
68 Ethyl acetate	43		4.953					ND	
70 sec-Butyl Alcohol	45		5.107					ND	
73 Methacrylonitrile	41		5.127					ND	
71 Chlorobromomethane	128		5.177					ND	
74 Chloroform	83		5.264					ND	
72 Tetrahydrofuran	42		5.281					ND	
75 1,1,1-Trichloroethane	97		5.560					ND	
76 Cyclohexane	56		5.647					ND	
78 1,1-Dichloropropene	75		5.751					ND	
77 Carbon tetrachloride	117		5.786					ND	
80 Isobutyl alcohol	41		5.873					ND	
82 1,2-Dichloroethane	62		6.012					ND	
81 Benzene	78		6.012					ND	
83 Tert-amyl methyl ether	73		6.206					ND	
84 n-Heptane	43		6.412					ND	
88 Ethyl acrylate	55		6.815					ND	
86 n-Butanol	56		6.815					ND	
85 Trichloroethene	95		6.917					ND	
89 2-Pentanone	43		7.160					ND	
90 1,2-Dichloropropane	63		7.213					ND	
87 Methylcyclohexane	55		7.230					ND	
92 Dibromomethane	93		7.387					ND	
91 Methyl methacrylate	100		7.406					ND	
94 Dichlorobromomethane	83		7.613					ND	
95 2-Nitropropane	41		7.911					ND	
96 2-Chloroethyl vinyl ether	63		8.065					ND	
97 cis-1,3-Dichloropropene	75		8.291					ND	
98 4-Methyl-2-pentanone (MIBK	43		8.535					ND	
99 Toluene	91		8.831					ND	
100 trans-1,3-Dichloropropene	75		9.144					ND	
101 Ethyl methacrylate	69		9.353					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 1,1,2-Trichloroethane	97		9.423					ND	
104 1,3-Dichloropropane	76		9.701					ND	
103 Tetrachloroethene	164		9.718					ND	
108 n-Butyl acetate	43		9.866					ND	
105 2-Hexanone	43		9.875					ND	
106 Tetrahydrothiophene	60		10.051					ND	
107 Chlorodibromomethane	129		10.084					ND	
109 Ethylene Dibromide	107		10.258					ND	
155 1,3-Butadiene TIC	39		10.778					ND	
154 4-Ethyltoluene TIC	105		10.778					ND	
153 Dicyclopentadiene TIC	66		10.778					ND	
152 Propene TIC	41		10.778					ND	
110 1-Chlorohexane	91		11.093					ND	
111 Chlorobenzene	112		11.093					ND	
113 1,1,1,2-Tetrachloroethane	131		11.232					ND	
112 Ethylbenzene	106		11.302					ND	
114 m-Xylene & p-Xylene	106		11.511					ND	
115 o-Xylene	106		12.172					ND	
116 Styrene	104		12.207					ND	
117 Bromoform	173		12.485					ND	
118 Isopropylbenzene	105		12.833					ND	
120 cis-1,4-Dichloro-2-butene	53		12.923					ND	
119 Cyclohexanone	55		12.955					ND	
121 Bromobenzene	156		13.320					ND	
122 1,1,2,2-Tetrachloroethane	83		13.338					ND	
124 1,2,3-Trichloropropane	110		13.407					ND	
125 trans-1,4-Dichloro-2-buten	53		13.459					ND	
123 N-Propylbenzene	120		13.564					ND	
126 2-Chlorotoluene	126		13.686					ND	
128 4-Chlorotoluene	126		13.877					ND	
127 1,3,5-Trimethylbenzene	105		13.895					ND	
129 tert-Butylbenzene	119		14.469					ND	
130 1,2,4-Trimethylbenzene	105		14.556					ND	
131 sec-Butylbenzene	134		14.869					ND	
132 1,3-Dichlorobenzene	146		15.026					ND	
133 4-Isopropyltoluene	119		15.147					ND	
136 Benzyl chloride	126		15.156					ND	
134 1,4-Dichlorobenzene	146		15.182					ND	
135 1,2,3-Trimethylbenzene	105		15.306					ND	
138 1,2-Dichlorobenzene	146		15.843					ND	
137 n-Butylbenzene	91		15.878					ND	
139 1,2-Dibromo-3-Chloropropan	157		16.957					ND	
140 1,3,5-Trichlorobenzene	180		17.238					ND	
141 1,2,4-Trichlorobenzene	180		17.897					ND	
142 Hexachlorobutadiene	225		18.088					ND	
143 Naphthalene	128		18.123					ND	
144 1,2,3-Trichlorobenzene	180	18.363	18.366	-0.003	78	2895		0.1887	
93 1,4-Dioxane	88		18.432					ND	
15 2-Methylnaphthalene	142		0.000					ND	
12 2,2,3-Trimethylbutane	1		0.000					ND	
16 2-Methylhexane	1		0.000					ND	
23 2,4-Dimethylpentane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
17 n-Nonyl Aldehyde	1		0.000					ND	
14 3-Methylhexane	1		0.000					ND	
19 2-Butoxyethanol TIC	1		0.000					ND	
18 Pentachloroethane	167		0.000					ND	
13 2,3-Dimethylpentane	1		0.000					ND	
20 3,3-Dimethylpentane	1		0.000					ND	
22 Dimethyl disulfide	1		0.000					ND	
21 2,2-Dimethylpentane	1		0.000					ND	
24 2,3-dichloro-1-propene TIC	75		1.000					ND	
25 Dichloroacetonitrile TIC	74		1.000					ND	
28 3-Ethylpentane	1		1.795					ND	
79 Propene oxide TIC	58		5.334					ND	
S 145 1,2-Dichloroethene, Total	1		0.000					ND	
S 146 Xylenes, Total	106		0.000					ND	
S 147 1,2-Dichloroethene, Total	96		0.000					ND	
S 148 1,3-Dichloropropene, Total	1		0.000					ND	
S 149 Trihalomethanes, Total	1		0.000					ND	
S 150 Xylenes, Total (URS)	1		0.000					ND	
S 151 Total BTEX	1		0.000					ND	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 19-May-2015 11:10:15 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7715.D

Injection Date: 19-May-2015 08:01:30 Instrument ID: VMS_Z Operator ID: moanm

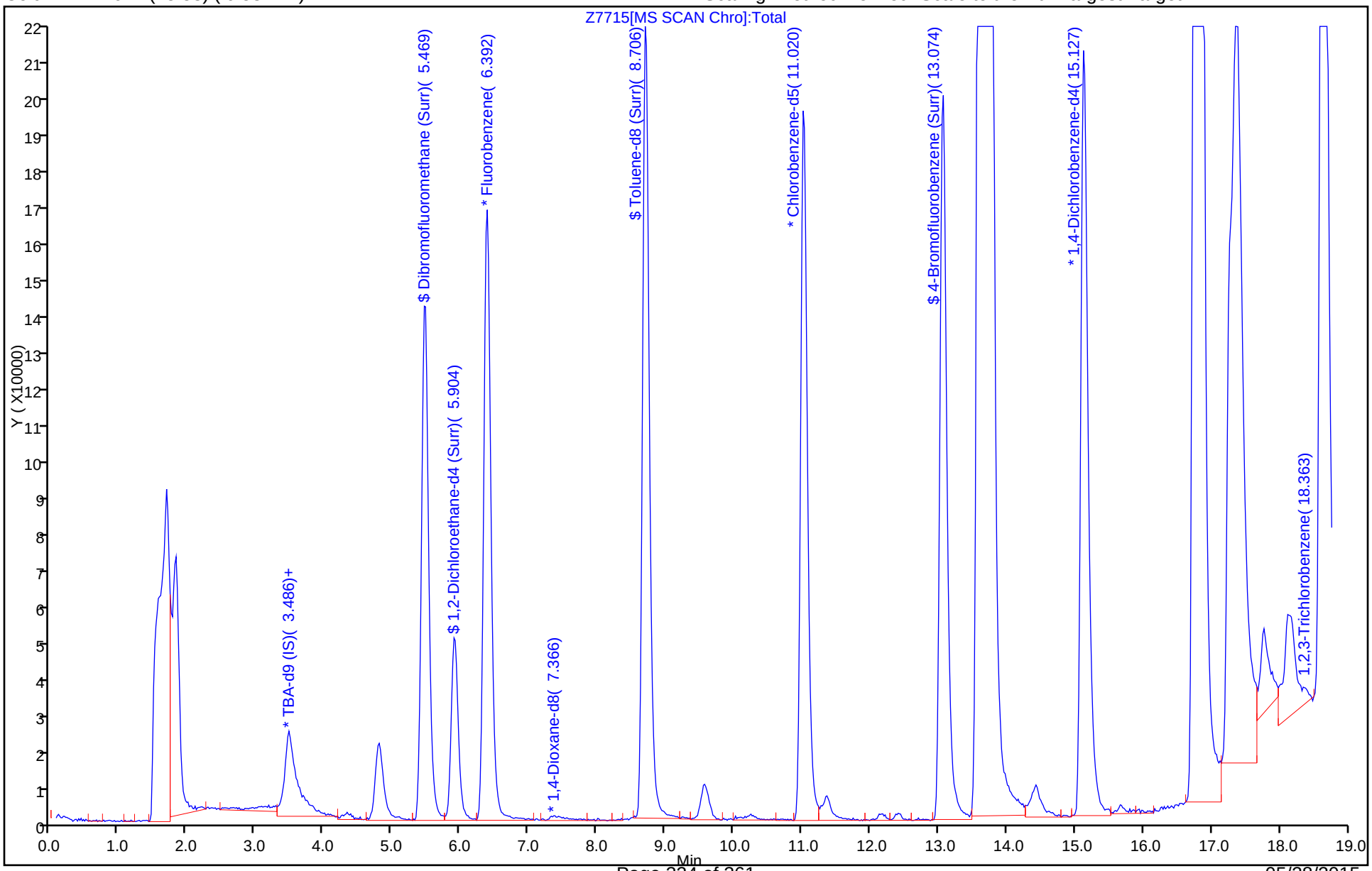
Lims ID: MB Worklist Smp#: 6

Client ID:

Purge Vol: 20.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

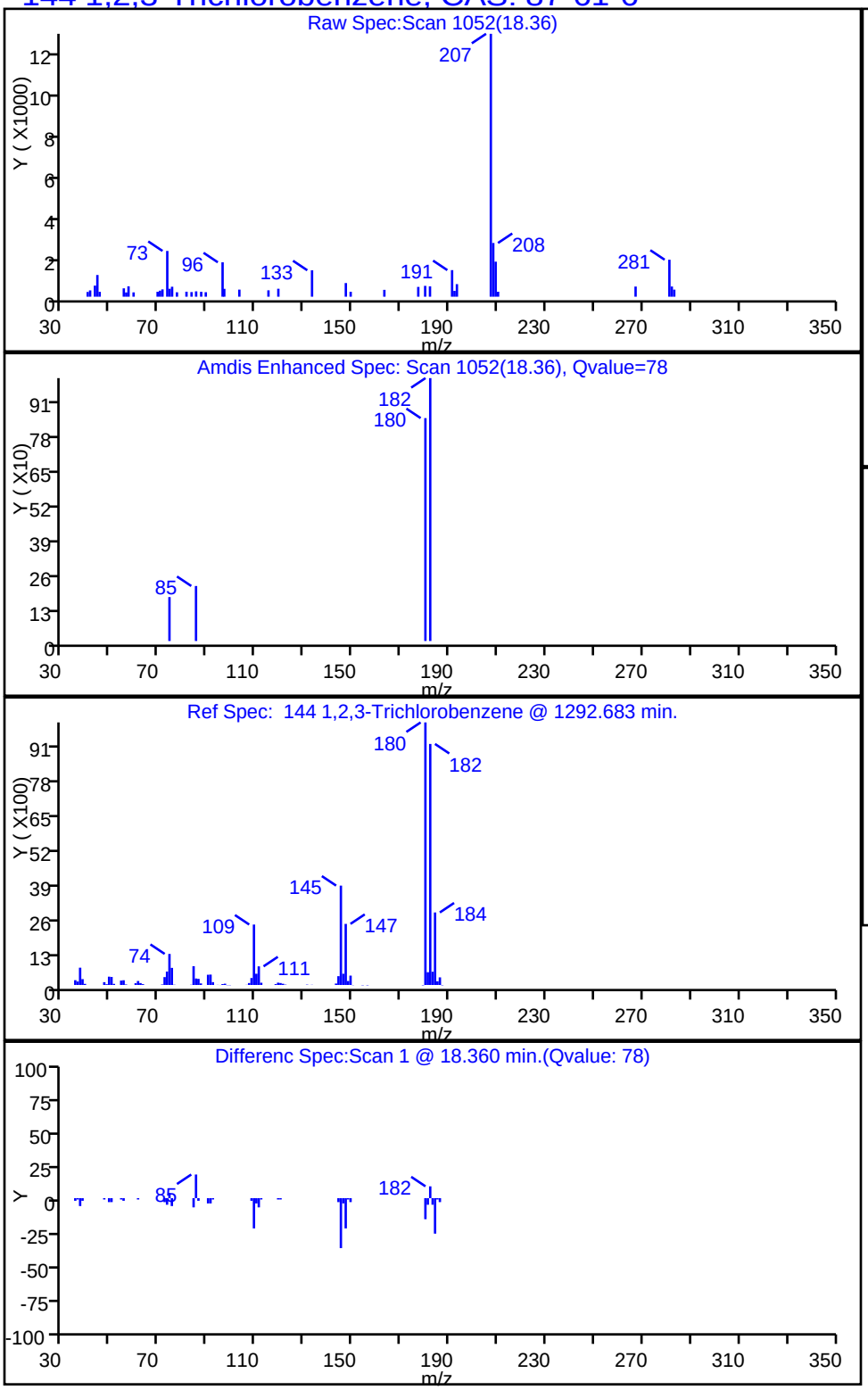


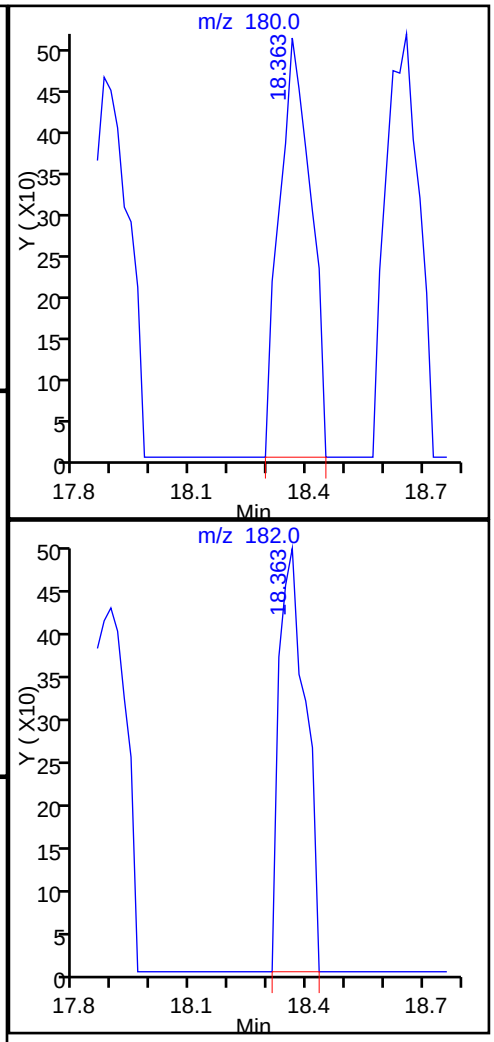
Report Date: 19-May-2015 11:10:15 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7715.D				
Injection Date:	19-May-2015 08:01:30	Instrument ID:	VMS_Z		
Lims ID:	MB				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

144 1,2,3-Trichlorobenzene, CAS: 87-61-6



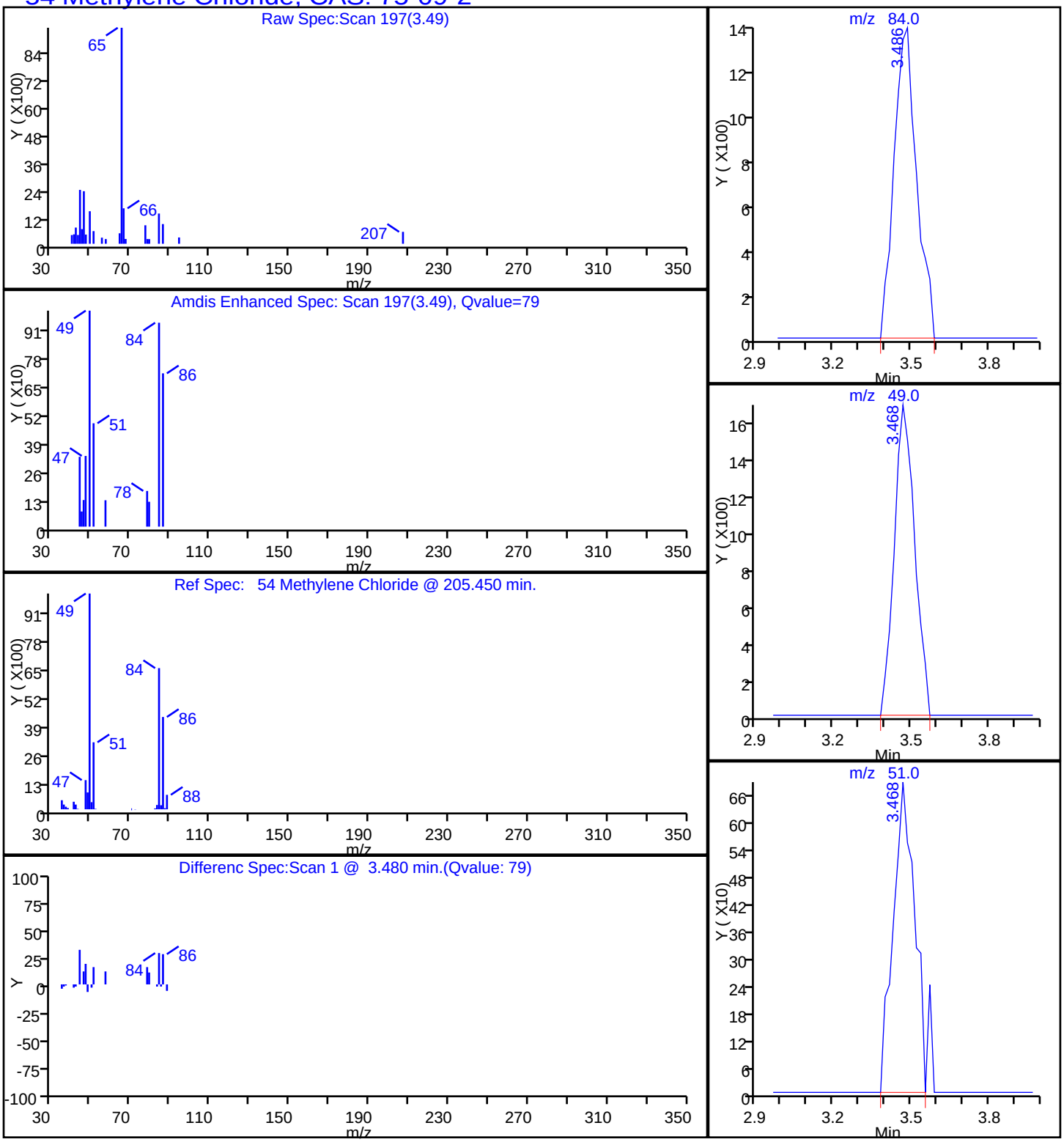


Report Date: 19-May-2015 11:10:15 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7715.D				
Injection Date:	19-May-2015 08:01:30	Instrument ID:	VMS_Z		
Lims ID:	MB				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

54 Methylene Chloride, CAS: 75-09-2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: | Lab Sample ID: LCS 280-278072/4
Matrix: Water | Lab File ID: Z7714.D
Analysis Method: 8260B | Date Collected:
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 07:38
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	5.25		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	4.72		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.73		1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	5.11		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	4.69		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.80		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	5.17		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	5.24		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	4.69		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	5.06		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.57		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	5.33		5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	4.93		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	5.25		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	4.63		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.67		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.61		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	5.11		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	4.79		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	5.43		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	5.59		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	19.7		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	5.04	M	1.0	0.40	0.17
591-78-6	2-Hexanone	18.7		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	4.79		1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	21.9		5.0	3.2	1.0
67-64-1	Acetone	21.8		10	6.4	1.9
71-43-2	Benzene	5.00		1.0	0.40	0.16
108-86-1	Bromobenzene	4.96		1.0	0.40	0.17
74-97-5	Bromochloromethane	5.31		1.0	0.20	0.10
75-27-4	Bromodichloromethane	4.81		1.0	0.40	0.17
75-25-2	Bromoform	5.26		1.0	0.40	0.19
74-83-9	Bromomethane	5.24		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.90		2.0	1.6	0.45
56-23-5	Carbon tetrachloride	4.89		2.0	0.40	0.19
108-90-7	Chlorobenzene	5.03		1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-68970-1
SDG No.:
Client Sample ID: | Lab Sample ID: LCS 280-278072/4
Matrix: Water | Lab File ID: Z7714.D
Analysis Method: 8260B | Date Collected:
Sample wt/vol: 20(mL) | Date Analyzed: 05/19/2015 07:38
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 278072 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	5.27		1.0	0.40	0.17
75-00-3	Chloroethane	5.05		2.0	1.6	0.41
67-66-3	Chloroform	4.99		1.0	0.40	0.16
74-87-3	Chloromethane	4.63	M	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.90		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	4.95		1.0	0.40	0.16
74-95-3	Dibromomethane	4.96		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	5.61		2.0	0.80	0.31
100-41-4	Ethylbenzene	4.79		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	5.16		1.0	0.80	0.36
98-82-8	Isopropylbenzene	4.63		1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	4.87	J M	5.0	0.80	0.25
75-09-2	Methylene Chloride	5.48		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	5.07		2.0	0.80	0.34
91-20-3	Naphthalene	5.10		1.0	0.80	0.22
104-51-8	n-Butylbenzene	4.74		1.0	0.80	0.32
103-65-1	N-Propylbenzene	4.90		1.0	0.40	0.16
95-47-6	o-Xylene	5.10		1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	4.71		1.0	0.40	0.17
135-98-8	sec-Butylbenzene	5.17		1.0	0.40	0.17
100-42-5	Styrene	5.01		1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	39.9	J	50	32	11
98-06-6	tert-Butylbenzene	4.74		1.0	0.40	0.16
127-18-4	Tetrachloroethene	5.30		1.0	0.40	0.20
108-88-3	Toluene	5.08		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	5.00		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	5.46		1.0	0.40	0.19
79-01-6	Trichloroethene	5.02		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	4.96		2.0	0.80	0.29
75-01-4	Vinyl chloride	4.93		1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-68970-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-278072/4
Matrix: Water
Lab File ID: Z7714.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 20(mL)
Date Analyzed: 05/19/2015 07:38
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 (75.53) ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 278072
Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		81-118
460-00-4	4-Bromofluorobenzene (Surr)	97		85-114
1868-53-7	Dibromofluoromethane (Surr)	104		80-119
2037-26-5	Toluene-d8 (Surr)	108		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7714.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-May-2015 07:38:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: moanm Instrument ID: VMS_Z

Method: \\Denchrom\ChromData\VMS_Z\20150519-35162.b\AQ_VMSZ_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2015 11:10:13 Calib Date: 18-May-2015 12:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\ChromData\VMS_Z\20150518-35108.b\Z7661.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: moanm Date: 19-May-2015 08:03:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.503	3.491	0.012	89	109567	250.0	250.0	
* 2 Fluorobenzene	96	6.392	6.397	-0.005	98	599119	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.021	11.043	-0.023	86	150696	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.150	-0.023	95	275328	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.470	5.475	-0.005	95	315038	10.5	10.9	
$ 9 1,2-Dichloroethane-d4 (Sur	65	5.905	5.910	-0.005	95	119585	10.5	10.9	
$ 10 Toluene-d8 (Surr)	98	8.706	8.712	-0.006	92	576600	10.5	11.3	
$ 11 4-Bromofluorobenzene (Surr	95	13.074	13.079	-0.005	91	307950	10.5	10.2	
27 Dichlorodifluoromethane	85	1.920	1.905	0.015	98	127919	5.00	5.61	
30 Chloromethane	50	1.990	1.975	0.015	98	68627	5.00	4.63	M
31 Butadiene	54	2.094	2.079	0.015	85	46268	NC	NC	
32 Vinyl chloride	62	2.111	2.097	0.014	98	70482	5.00	4.93	
35 Bromomethane	94	2.338	2.340	-0.002	90	80553	5.00	5.24	
36 Chloroethane	64	2.390	2.393	-0.003	99	49455	5.00	5.05	
37 Dichlorofluoromethane	67	2.546	2.532	0.014	97	193966	5.00	4.94	
38 Trichlorofluoromethane	101	2.599	2.601	-0.002	99	167807	5.00	4.96	
40 Ethyl ether	59	2.807	2.793	0.014	90	30809	5.00	4.76	
44 Acrolein	56	2.912	2.915	-0.003	99	22121	50.0	57.6	
45 1,1-Dichloroethene	96	3.034	3.036	-0.002	98	75811	5.00	4.80	
48 Acetone	43	3.051	3.036	0.015	31	15770	20.0	21.8	
46 1,1,2-Trichloro-1,2,2-trif	151	3.086	3.089	-0.003	95	123531	5.00	5.20	
49 Iodomethane	142	3.190	3.193	-0.003	97	219003	5.00	5.30	
50 Carbon disulfide	76	3.277	3.263	0.014	98	263731	5.00	4.90	
52 3-Chloro-1-propene	41	3.364	3.350	0.014	85	102026	5.00	4.39	
51 Methyl acetate	43	3.364	3.350	0.014	70	75289	25.0	23.3	
54 Methylene Chloride	84	3.469	3.472	-0.003	90	73872	5.00	5.48	
55 2-Methyl-2-propanol	59	3.573	3.576	-0.003	94	15050	50.0	39.9	
58 Acrylonitrile	53	3.695	3.680	0.015	98	52811	50.0	50.7	
57 trans-1,2-Dichloroethene	96	3.764	3.767	-0.003	99	85390	5.00	5.00	
56 Methyl tert-butyl ether	73	3.817	3.785	0.032	77	118500	5.00	4.87	M
59 Hexane	57	4.060	4.063	-0.003	90	104547	5.00	4.12	
62 1,1-Dichloroethane	63	4.199	4.202	-0.003	96	142080	5.00	4.69	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
61 Vinyl acetate	43	4.234	4.220	0.014	95	146642	10.0	10.0	
65 cis-1,2-Dichloroethene	96	4.878	4.881	-0.003	83	82460	5.00	4.90	
67 2-Butanone (MEK)	43	4.878	4.881	-0.003	42	34703	20.0	19.7	
66 2,2-Dichloropropane	77	4.895	4.898	-0.003	87	156723	5.00	5.59	
70 sec-Butyl Alcohol	45	5.122	5.107	0.015	95	51821	150.0	149.9	
71 Chlorobromomethane	128	5.174	5.177	-0.003	86	43044	5.00	5.31	
74 Chloroform	83	5.261	5.264	-0.003	93	149299	5.00	4.99	
72 Tetrahydrofuran	42	5.261	5.281	-0.020	36	12140	10.0	10.4	
75 1,1,1-Trichloroethane	97	5.557	5.560	-0.003	99	140158	5.00	4.72	
76 Cyclohexane	56	5.661	5.647	0.014	88	116610	5.00	4.28	
78 1,1-Dichloropropene	75	5.748	5.751	-0.003	99	126616	5.00	5.17	
77 Carbon tetrachloride	117	5.783	5.786	-0.003	96	144200	5.00	4.89	
80 Isobutyl alcohol	41	5.870	5.873	-0.003	34	12705	125.0	111.2	
82 1,2-Dichloroethane	62	6.009	6.012	-0.003	90	54837	5.00	4.63	
81 Benzene	78	6.009	6.012	-0.003	93	235126	5.00	5.00	
84 n-Heptane	43	6.409	6.412	-0.003	91	124293	5.00	4.52	
85 Trichloroethene	95	6.914	6.917	-0.003	94	102957	5.00	5.02	
89 2-Pentanone	43	7.140	7.160	-0.020	99	77757	20.0	20.5	
90 1,2-Dichloropropane	63	7.210	7.213	-0.003	95	75759	5.00	4.67	
87 Methylcyclohexane	55	7.227	7.230	-0.003	90	109931	5.00	4.74	
92 Dibromomethane	93	7.366	7.387	-0.021	93	44961	5.00	4.96	
94 Dichlorobromomethane	83	7.610	7.613	-0.003	100	123267	5.00	4.81	
96 2-Chloroethyl vinyl ether	63	8.062	8.065	-0.003	92	24922	5.00	4.86	
97 cis-1,3-Dichloropropene	75	8.271	8.291	-0.020	97	106643	5.00	4.95	
98 4-Methyl-2-pentanone (MIBK	43	8.532	8.535	-0.003	96	116716	20.0	21.9	
99 Toluene	91	8.811	8.831	-0.020	99	254679	5.00	5.08	
100 trans-1,3-Dichloropropene	75	9.141	9.144	-0.003	91	78309	5.00	5.46	
101 Ethyl methacrylate	69	9.333	9.353	-0.020	86	57958	5.00	4.78	
102 1,1,2-Trichloroethane	97	9.420	9.423	-0.003	89	46020	5.00	5.11	
104 1,3-Dichloropropane	76	9.681	9.701	-0.020	90	74424	5.00	4.79	
103 Tetrachloroethene	164	9.698	9.718	-0.020	96	100784	5.00	5.30	
105 2-Hexanone	43	9.872	9.875	-0.003	95	67264	20.0	18.7	
107 Chlorodibromomethane	129	10.063	10.084	-0.021	89	98221	5.00	5.27	
109 Ethylene Dibromide	107	10.237	10.258	-0.021	99	60699	5.00	4.93	
110 1-Chlorohexane	91	11.073	11.093	-0.020	78	122505	5.00	5.05	
111 Chlorobenzene	112	11.073	11.093	-0.020	91	185791	5.00	5.03	
113 1,1,1,2-Tetrachloroethane	131	11.229	11.232	-0.003	96	96377	5.00	5.25	
112 Ethylbenzene	106	11.282	11.302	-0.020	99	87071	5.00	4.79	
114 m-Xylene & p-Xylene	106	11.490	11.511	-0.021	99	122112	5.00	5.07	
115 o-Xylene	106	12.169	12.172	-0.003	97	106472	5.00	5.10	
116 Styrene	104	12.186	12.207	-0.021	93	165683	5.00	5.01	
117 Bromoform	173	12.465	12.485	-0.020	97	51618	5.00	5.26	
118 Isopropylbenzene	105	12.830	12.833	-0.003	96	330921	5.00	4.63	
119 Cyclohexanone	55	12.952	12.955	-0.003	87	32912	200.0	222.4	
121 Bromobenzene	156	13.317	13.320	-0.003	91	93926	5.00	4.96	
122 1,1,2,2-Tetrachloroethane	83	13.335	13.338	-0.003	94	61607	5.00	4.73	
124 1,2,3-Trichloropropane	110	13.387	13.407	-0.020	78	14026	5.00	4.69	
125 trans-1,4-Dichloro-2-buten	53	13.439	13.459	-0.020	71	11345	5.00	4.90	
123 N-Propylbenzene	120	13.561	13.564	-0.003	99	93876	5.00	4.90	
126 2-Chlorotoluene	126	13.683	13.686	-0.003	37	81507	5.00	5.04	a
128 4-Chlorotoluene	126	13.874	13.877	-0.003	98	87991	5.00	4.79	
127 1,3,5-Trimethylbenzene	105	13.892	13.895	-0.002	96	254889	5.00	4.61	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
129 tert-Butylbenzene	119	14.466	14.469	-0.003	94	304897	5.00	4.74	
130 1,2,4-Trimethylbenzene	105	14.553	14.556	-0.003	95	245042	5.00	4.57	
131 sec-Butylbenzene	134	14.866	14.869	-0.003	93	89368	5.00	5.17	
132 1,3-Dichlorobenzene	146	15.023	15.026	-0.003	97	165216	5.00	5.11	
133 4-Isopropyltoluene	119	15.144	15.147	-0.003	96	343706	5.00	4.71	
134 1,4-Dichlorobenzene	146	15.179	15.182	-0.003	96	210492	5.00	5.43	
138 1,2-Dichlorobenzene	146	15.823	15.843	-0.020	98	148281	5.00	5.25	
137 n-Butylbenzene	91	15.858	15.878	-0.020	97	297300	5.00	4.74	
139 1,2-Dibromo-3-Chloropropan	157	16.954	16.957	-0.003	91	11533	5.00	5.33	
141 1,2,4-Trichlorobenzene	180	17.876	17.897	-0.021	95	99726	5.00	5.06	
142 Hexachlorobutadiene	225	18.085	18.088	-0.003	97	98671	5.00	5.16	
143 Naphthalene	128	18.103	18.123	-0.020	98	96397	5.00	5.10	
144 1,2,3-Trichlorobenzene	180	18.364	18.366	-0.002	96	78805	5.00	5.24	
93 1,4-Dioxane	88		18.432				ND	ND	
S 145 1,2-Dichloroethene, Total	1				0		10.0	9.90	
S 146 Xylenes, Total	106				0		10.0	10.2	
S 147 1,2-Dichloroethene, Total	96				0		10.0	9.90	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.4	
S 149 Trihalomethanes, Total	1				0		20.0	20.3	
S 150 Xylenes, Total (URS)	1				0		10.0	10.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

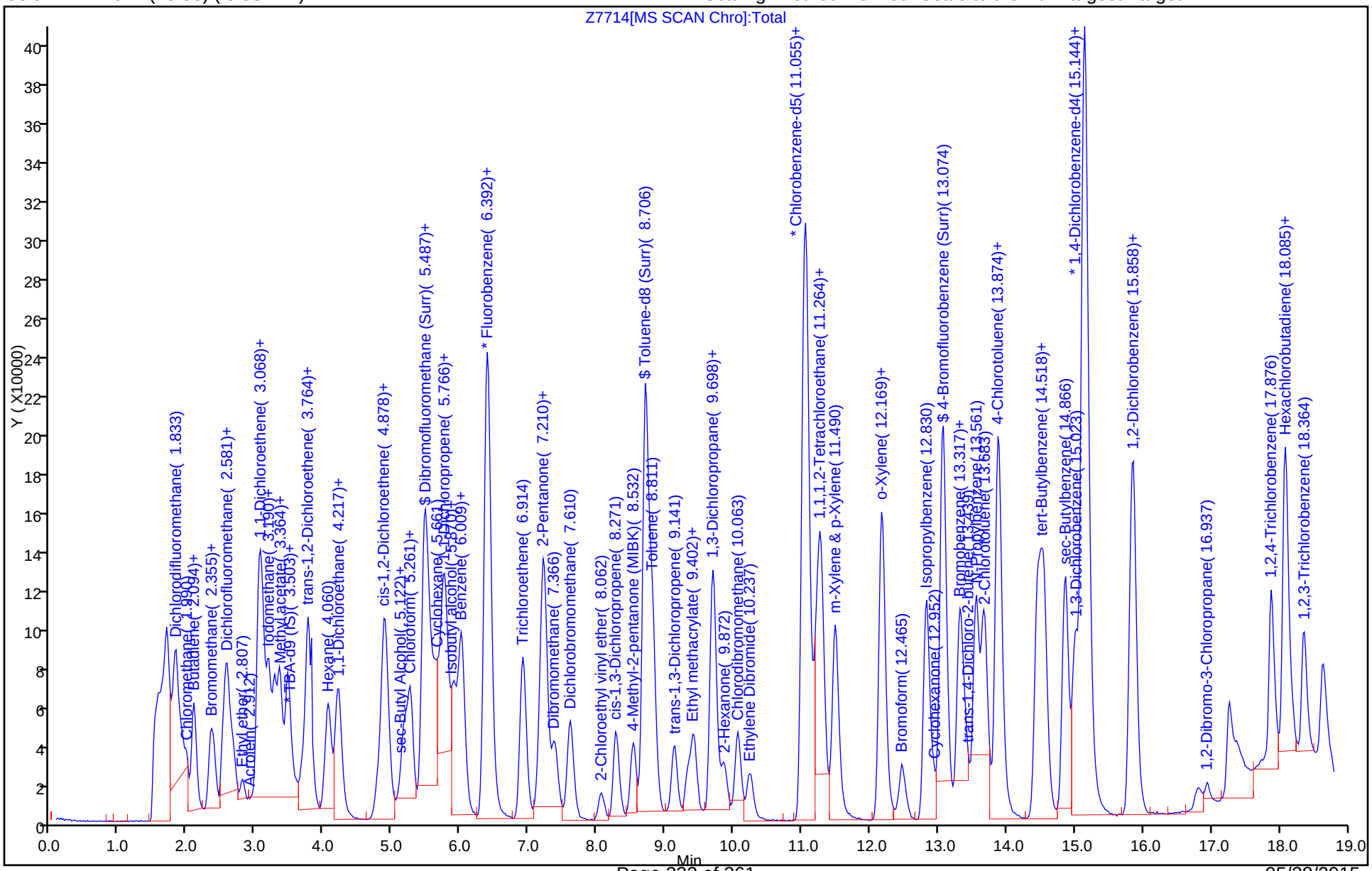
MV-Main B_00009	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00019	Amount Added:	2.50	Units: uL	
MV-SS 2-Cleve_00020	Amount Added:	2.50	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added:	0.84	Units: uL	Run Reagent

Report Date: 19-May-2015 11:10:14 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7714.D				
Injection Date:	19-May-2015 07:38:30	Instrument ID:	VMS_Z	Operator ID:	moanm
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (75.53) (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

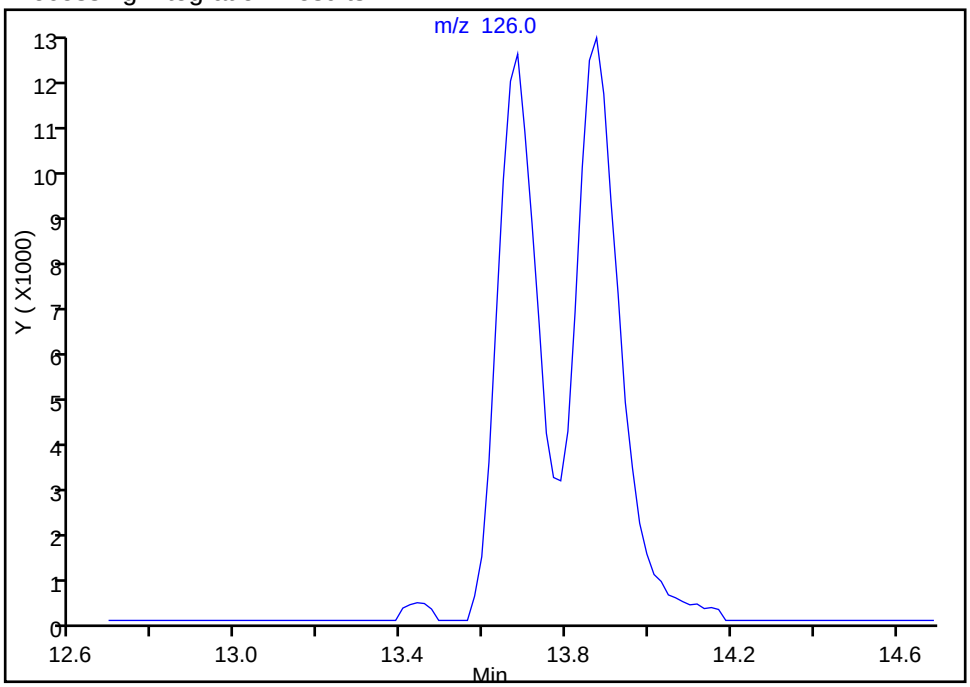
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7714.D				
Injection Date:	19-May-2015 07:38:30	Instrument ID:	VMS_Z		
Lims ID:	LCS				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

126 2-Chlorotoluene, CAS: 95-49-8

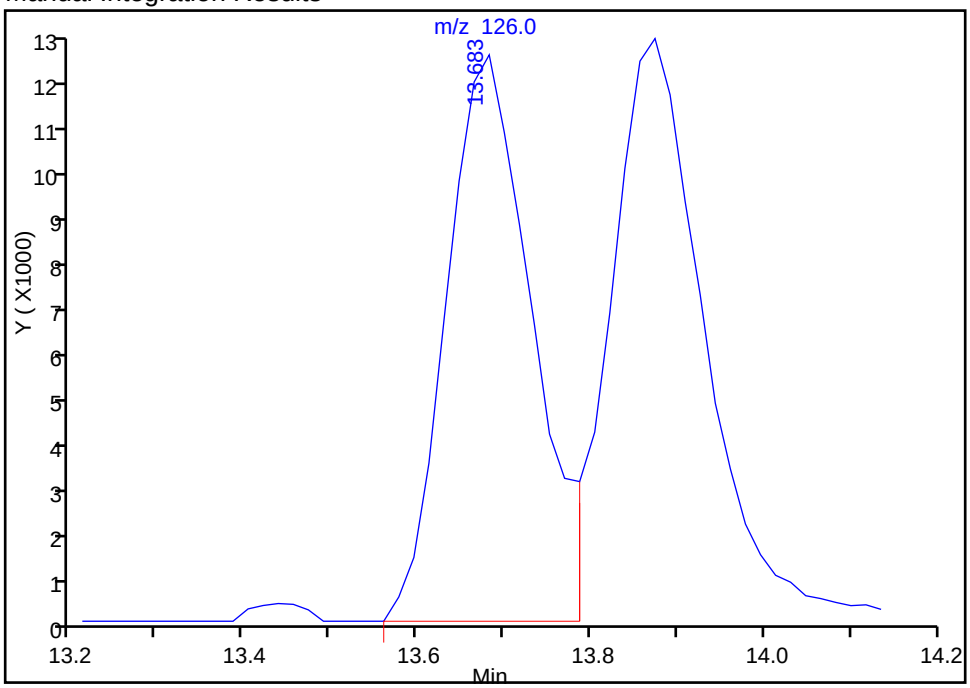
Not Detected
Expected RT: 13.69

Processing Integration Results



RT: 13.68
Area: 81507
Amount: 5.040803
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 19-May-2015 08:03:53
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

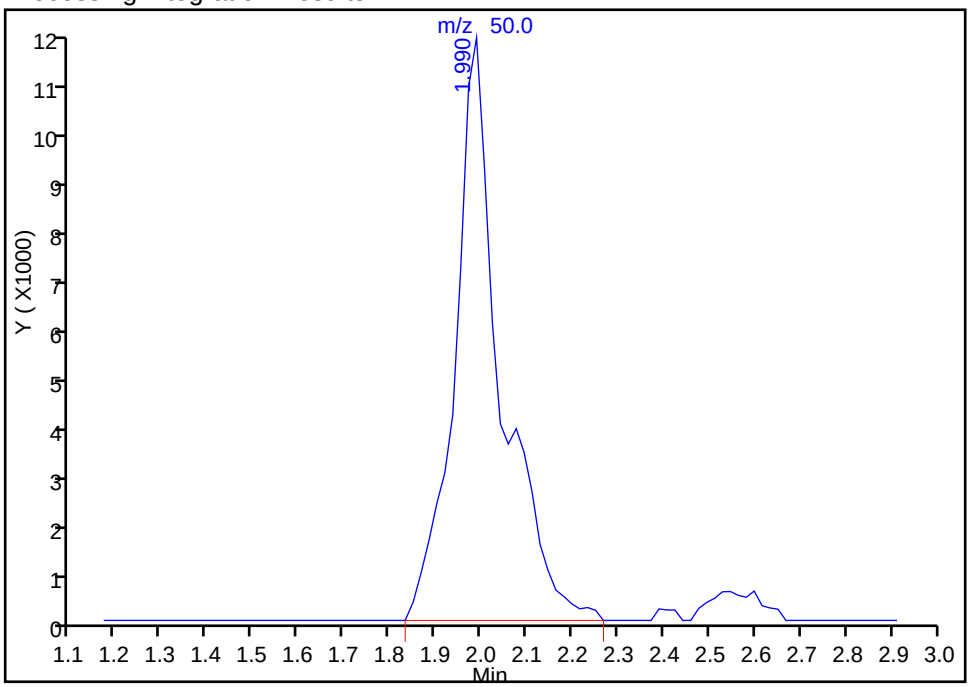
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7714.D				
Injection Date:	19-May-2015 07:38:30	Instrument ID:	VMS_Z		
Lims ID:	LCS				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

30 Chloromethane, CAS: 74-87-3

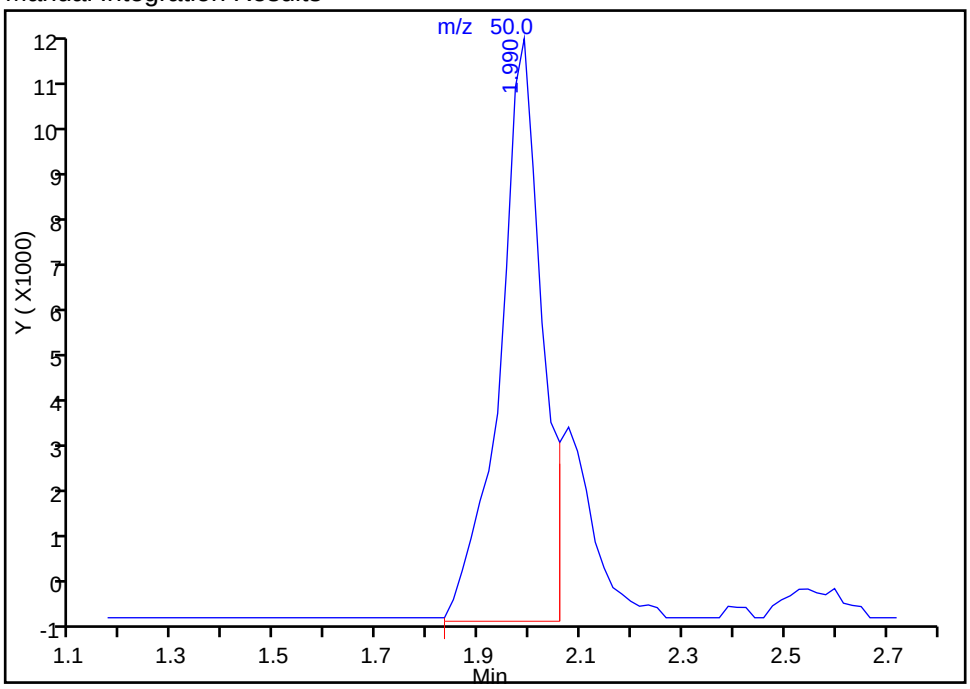
Processing Integration Results

RT: 1.99
Area: 82764
Amount: 5.589206
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 68627
Amount: 4.634509
Amount Units: ug/l



Reviewer: moanm, 19-May-2015 08:03:53
Audit Action: Manually Integrated
Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

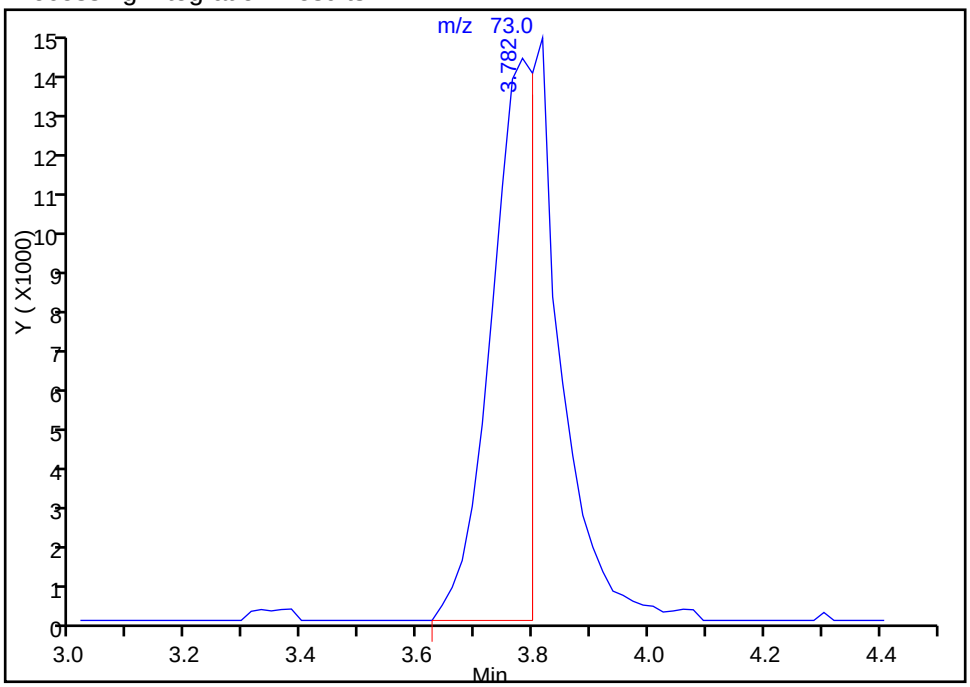
TestAmerica Denver

Data File:	\\Denchrom\ChromData\VMS_Z\20150519-35162.b\Z7714.D				
Injection Date:	19-May-2015 07:38:30	Instrument ID:	VMS_Z		
Lims ID:	LCS				
Client ID:					
Operator ID:	moanm	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSZ_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (75.53) (0.53 mm)	Detector	MS SCAN		

56 Methyl tert-butyl ether, CAS: 1634-04-4

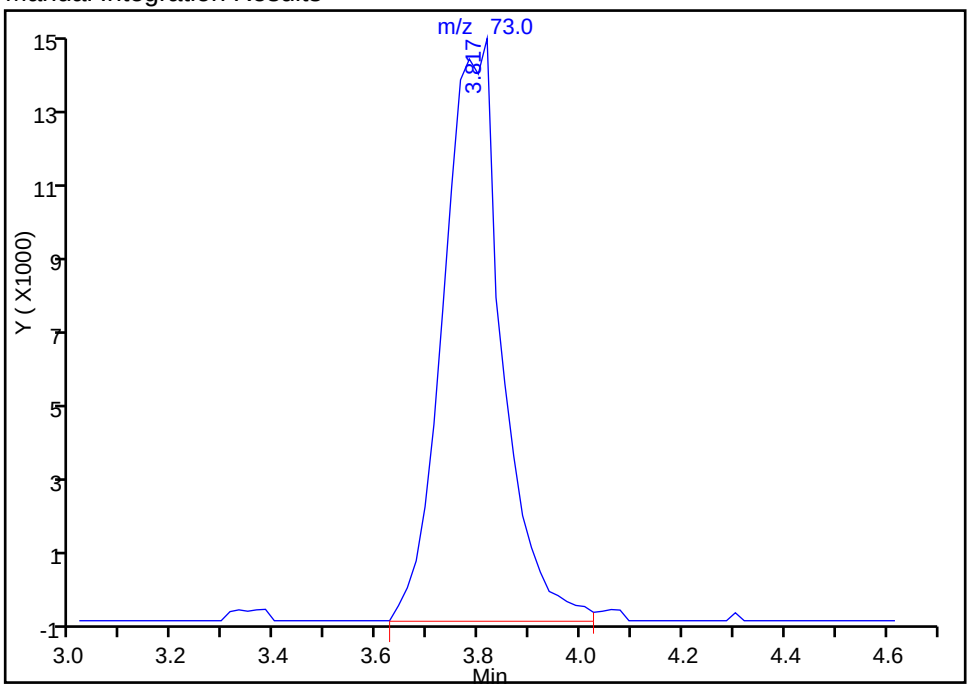
Processing Integration Results

RT: 3.78
Area: 74547
Amount: 3.064363
Amount Units: ug/l



Manual Integration Results

RT: 3.82
Area: 118500
Amount: 4.871116
Amount Units: ug/l



Reviewer: moanm, 19-May-2015 08:03:53
Audit Action: Manually Integrated
Audit Reason: Split Peak

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Start Date: 04/27/2015 06:31

Analysis Batch Number: 274661 End Date: 04/27/2015 14:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-274661/1		04/27/2015 06:31	1	Z6760.D	DB-624 (75.53) 0.53(mm)
IC 280-274661/10		04/27/2015 07:59	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 07:59	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/11		04/27/2015 08:22	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 08:22	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/12		04/27/2015 08:45	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 08:45	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/13		04/27/2015 09:07	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 09:07	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/14		04/27/2015 09:30	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/15		04/27/2015 09:53	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/16		04/27/2015 10:16	1		DB-624 (75.53) 0.53(mm)
ICV 280-274661/17		04/27/2015 11:01	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/18		04/27/2015 11:28	1	Z6773.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 11:28	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/19		04/27/2015 11:51	1	Z6774.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 11:51	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/20		04/27/2015 12:13	1	Z6775.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 12:13	1		DB-624 (75.53) 0.53(mm)
ICIS 280-274661/21		04/27/2015 12:36	1	Z6776.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/27/2015 12:36	1		DB-624 (75.53) 0.53(mm)
IC 280-274661/22		04/27/2015 12:59	1	Z6777.D	DB-624 (75.53) 0.53(mm)
IC 280-274661/23		04/27/2015 13:21	1	Z6778.D	DB-624 (75.53) 0.53(mm)
ICV 280-274661/24		04/27/2015 14:12	1	Z6780.D	DB-624 (75.53) 0.53(mm)

8260B

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Start Date: 05/14/2015 07:49

Analysis Batch Number: 277378 End Date: 05/14/2015 14:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-277378/1		05/14/2015 07:49	1	Z7568.D	DB-624 (75.53) 0.53(mm)
CCV 280-277378/3		05/14/2015 07:56	1		DB-624 (75.53) 0.53(mm)
IC 280-277378/9		05/14/2015 08:19	1	Z7570.D	DB-624 (75.53) 0.53(mm)
IC 280-277378/10		05/14/2015 08:42	1	Z7571.D	DB-624 (75.53) 0.53(mm)
IC 280-277378/11		05/14/2015 09:05	1	Z7572.D	DB-624 (75.53) 0.53(mm)
IC 280-277378/12		05/14/2015 09:28	1	Z7573.D	DB-624 (75.53) 0.53(mm)
IC 280-277378/13		05/14/2015 09:50	1	Z7574.D	DB-624 (75.53) 0.53(mm)
IC 280-277378/14		05/14/2015 10:13	1	Z7575.D	DB-624 (75.53) 0.53(mm)
IC 280-277378/15		05/14/2015 10:35	1	Z7576.D	DB-624 (75.53) 0.53(mm)
ICV 280-277378/16		05/14/2015 11:21	1	Z7578.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		05/14/2015 11:44	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/14/2015 12:33	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/14/2015 13:37	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/14/2015 14:01	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/14/2015 14:24	1		DB-624 (75.53) 0.53(mm)
CCVC 280-277378/22		05/14/2015 14:47	1		DB-624 (75.53) 0.53(mm)

8260B

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Start Date: 05/18/2015 07:01

Analysis Batch Number: 277857 End Date: 05/18/2015 18:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-277857/1		05/18/2015 07:01	1	Z7647.D	DB-624 (75.53) 0.53(mm)
CCV 280-277857/2		05/18/2015 07:07	1		DB-624 (75.53) 0.53(mm)
CCV 280-277857/3		05/18/2015 07:30	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 07:57	1		DB-624 (75.53) 0.53(mm)
CCV 280-277857/9		05/18/2015 09:54	1		DB-624 (75.53) 0.53(mm)
CCV 280-277857/10		05/18/2015 10:16	1		DB-624 (75.53) 0.53(mm)
IC 280-277857/11		05/18/2015 10:39	1	Z7657.D	DB-624 (75.53) 0.53(mm)
IC 280-277857/12		05/18/2015 11:02	1	Z7658.D	DB-624 (75.53) 0.53(mm)
IC 280-277857/13		05/18/2015 11:25	1	Z7659.D	DB-624 (75.53) 0.53(mm)
IC 280-277857/14		05/18/2015 11:47	1	Z7660.D	DB-624 (75.53) 0.53(mm)
IC 280-277857/15		05/18/2015 12:10	1	Z7661.D	DB-624 (75.53) 0.53(mm)
ICV 280-277857/16		05/18/2015 12:32	1	Z7662.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 12:55	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 13:17	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 13:40	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 14:03	100		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 14:27	1000		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 14:49	10		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 15:12	100		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 15:35	20		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 15:58	200		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 16:20	4		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 16:43	40		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 17:06	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 17:29	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 17:51	2		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/18/2015 18:14	1		DB-624 (75.53) 0.53(mm)

8260B

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-68970-1

SDG No.:

Instrument ID: VMS_Z Start Date: 05/19/2015 06:46

Analysis Batch Number: 278072 End Date: 05/19/2015 17:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-278072/1		05/19/2015 06:46	1	Z7711.D	DB-624 (75.53) 0.53(mm)
CCV 280-278072/2		05/19/2015 06:53	1	Z7712.D	DB-624 (75.53) 0.53(mm)
CCV 280-278072/3		05/19/2015 07:15	1	Z7713.D	DB-624 (75.53) 0.53(mm)
LCS 280-278072/4		05/19/2015 07:38	1	Z7714.D	DB-624 (75.53) 0.53(mm)
MB 280-278072/6		05/19/2015 08:01	1	Z7715.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 08:24	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 08:47	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 09:09	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 09:32	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 09:55	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 10:17	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 10:40	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 11:03	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 11:26	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 11:49	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 12:11	1		DB-624 (75.53) 0.53(mm)
280-68970-1	54403-TB13-0515	05/19/2015 12:34	1	Z7727.D	DB-624 (75.53) 0.53(mm)
280-68970-3	54400-MW46D-0515	05/19/2015 12:57	1	Z7728.D	DB-624 (75.53) 0.53(mm)
280-68970-4	54401-MW46D-0515-DUP	05/19/2015 13:20	1	Z7729.D	DB-624 (75.53) 0.53(mm)
280-68970-5	54402-EB15-0515	05/19/2015 13:42	1	Z7730.D	DB-624 (75.53) 0.53(mm)
280-68970-6	54402-EB14-0515	05/19/2015 14:05	1	Z7731.D	DB-624 (75.53) 0.53(mm)
CCVC 280-278072/26		05/19/2015 14:28	1	Z7732.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 14:51	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 15:14	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 15:37	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 15:59	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 16:22	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 16:45	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 17:08	10		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/19/2015 17:31	1		DB-624 (75.53) 0.53(mm)

8260B

GC/MS VOA Continuing Calibration Review Checklist *TestAmerica Denver*

Instrument ID and Date: Z 5/19/15 Work List 35162

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA _____

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	---- Level 1 ---- Yes	No	N/A	Level 2	Comments
Continuing Calibration					
1. BFB meets criteria?	+			✓	
2. ICAL date and instrument ID verified?	+			✓	
3. Do SPCC RRFs and CCC %Ds meet method criteria?	+			✓	
4. Does %D meet criteria for non-CCC compounds?	+			✓	
5. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	+			✓	
6. Label number of standard used recorded?	+			✓	
7. Manual integrations documented and checked?	+			✓	
8. Do the Internal Standards meet criteria for %D against ICAL?	+			✓	
9. Does this CCV pass Q4 criteria?	+			✓	Q5

1st Level Reviewer: [signature] Date: 5-19-15

2nd Level Reviewer: [signature] Date: 5/19/15

Revision 2
4/2/2013
\\tafs\Lab2\Denver\Admin\QA\Edit\FORMS\Data Review\MS VOA\GCMS VOA CCV Rev2.doc

Sequence Name: C:\HPCHEM\1\SEQUENCE\051915am.S
Comment:
Operator: moanm
Data Path: C:\HPCHEM\1\data\051915am\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: Z
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 6:46-17:31
Lime Batch: 278072
WL 35162

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name	
1	Sample	100	Z7709	BFB	bfb	
2	Sample	99	Z7710	BFB	bfb	
3	Sample	98	Z7711	BFB	bfb	
4	Sample	1	Z7712	8260	ccv	
5	Sample	2	Z7713	8260	ccv	
6	Sample	3	Z7714	8260	lcs	
7	Sample	4	Z7715	8260	mb	
8	Sample	5	Z7716	8260	280-69083-I-8 ph<2	
9	Sample	6	Z7717	8260	280-69083-H-8 ph<2	MS
10	Sample	7	Z7718	8260	280-69083-H-8 ph<2	MSD
11	Sample	8	Z7719	8260	280-69083-D-1 ph<2	
12	Sample	9	Z7720	8260	280-69083-B-2 ph<2	
13	Sample	10	Z7721	8260	280-69083-B-3 ph<2	
14	Sample	11	Z7722	8260	280-69083-C-4 ph<2	
15	Sample	12	Z7723	8260	280-69083-C-5 ph<2	
16	Sample	13	Z7724	8260	280-69083-D-6 ph<2	
17	Sample	14	Z7725	8260	280-69083-D-7 ph<2	
18	Sample	15	Z7726	8260	280-69083-F-9 ph<2	
19	Sample	16	Z7727	8260	280-68970-A-1 ph<2	
20	Sample	17	Z7728	8260	280-68970-C-3 ph<2	
21	Sample	18	Z7729	8260	280-68970-B-4 ph<2	
22	Sample	19	Z7730	8260	280-68970-C-5 ph<2	
23	Sample	20	Z7731	8260	280-68970-A-6 ph<2	
24	Sample	22	Z7732	8260	ccvc	
25	Sample	23	Z7733	8260	280-68964-G-1 ph~7	
26	Sample	24	Z7734	8260	280-69017-G-5 ph<2	
27	Sample	25	Z7735	8260	280-69017-D-7 ph<2	
28	Sample	26	Z7736	8260	280-69022-I-8 ph<2	
29	Sample	27	Z7737	8260	280-69022-A-9 ph<2	
30	Sample	28	Z7738	8260	280-69051-D-8 ph<2	-E
31	Sample	29	Z7739	8260	280-69051-D-8 ph<2	2mL-D
32	Sample	30	Z7740	8260	280-69051-E-9 ph<2	

TestAmerica Laboratories
Worklist Report

Worklist Name: 051915am
Worklist Number: 35162
Instrument Name: VMS_Z
Chrom Method: AQ_VMSZ_8260
Purge Volume: 20.00
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_Z\20150519-35162.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00042 Amount Added: 0.840000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035162-001	# 1 BFB	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035162-002	# 2 CCV	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	CCV		voaWater	20.00	mL	1.000000
280-0035162-003	# 3 CCV	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0035162-004	# 4 LCS	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0035162-005	# 5 LCSD	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCSD		voaWater	20.00	mL	1.000000
280-0035162-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0035162-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0035162-008	# 8 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0035162-010	#10 280-69083-I-8		Client		voaWater	20.00	mL	1.000000
280-0035162-011	#11 280-69083-H-8 MS	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	MS		voaWater	20.00	mL	1.000000
280-0035162-012	#12 280-69083-H-8 MSD	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	MSD		voaWater	20.00	mL	1.000000
280-0035162-013	#13 280-69083-D-1		Client		voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035162-014	#14 280-69083-B-2		Client		voaWater	20.00	mL	1.000000
280-0035162-015	#15 280-69083-B-3		Client		voaWater	20.00	mL	1.000000
280-0035162-016	#16 280-69083-C-4		Client		voaWater	20.00	mL	1.000000
280-0035162-017	#17 280-69083-C-5		Client		voaWater	20.00	mL	1.000000
280-0035162-018	#18 280-69083-D-6		Client		voaWater	20.00	mL	1.000000
280-0035162-019	#19 280-69083-D-7		Client		voaWater	20.00	mL	1.000000
280-0035162-020	#20 280-69083-F-9		Client		voaWater	20.00	mL	1.000000
280-0035162-021	#21 280-68970-A-1		Client		voaWater	20.00	mL	1.000000
280-0035162-022	#22 280-68970-C-3		Client		voaWater	20.00	mL	1.000000
280-0035162-023	#23 280-68970-B-4		Client		voaWater	20.00	mL	1.000000
280-0035162-024	#24 280-68970-C-5		Client		voaWater	20.00	mL	1.000000
280-0035162-025	#25 280-68970-A-6		Client		voaWater	20.00	mL	1.000000
280-0035162-026	#26 ccvc	MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	CCVC		voaWater	20.00	mL	1.000000
280-0035162-027	#27 280-68964-G-1		Client		voaWater	20.00	mL	1.000000
280-0035162-028	#28 280-69017-G-5		Client		voaWater	20.00	mL	1.000000
280-0035162-029	#29 280-69017-D-7		Client		voaWater	20.00	mL	1.000000
280-0035162-030	#30 280-69022-I-8		Client		voaWater	20.00	mL	1.000000
280-0035162-031	#31 280-69022-A-9		Client		voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035162-032	#32 280-69051-D-8		Client		voaWater	20.00	mL	1.000000
280-0035162-033	#33 280-69051-D-8		Client		voaWater	20.00	mL	10.00
280-0035162-034	#34 280-69051-E-9		Client		voaWater	20.00	mL	1.000000
280-0035162-035	#35 Samp 35		Client		voaWater	20.00	mL	1.000000

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: Z 04/27/15 i Supp ICAL Batch/ICV lines: 274661 **isis 21 icv 24** .
Calibration Event 22133 Work List 34370 2nd Day Batch/ICV lines _____.

Check Method Used: Analysis ☐ 624 ☒ 8260B ☐ Other VOA _____

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	----- Level 1 ----- Yes	No	N/A	Level 2	Comments
Initial Calibration					
1. BFB meets criteria?	/			+	
2. ICAL date and instrument ID verified?	/			+	
3. Does the Form VI match the data in the Chrom source method?	/			+	
4. Sufficient number of calibration points used?	/			+	
5. Reasons for removal of points documented?	/			+	Some points < RL removed. See below
6. %RSD or correlation coefficient within method limits?	/			+	
7. Response factors meet criteria?	/			+	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	/			+	
9. Data checked for detector saturation?	/			+	
10. Label number of standards used recorded?	/			+	
11. Manual integrations documented and checked?	/			+	Tert-amyl methyl ether
12. 2nd source ICV recovery 80-120% (±20%drift) for DoD projects, 65-135% (±35%,or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	/			+	Ethyl acetate -50.29%D Tetrahydrothiophene -23.78%D

1st Level Reviewer: [signature] Date: 4/27/15

2nd Level Reviewer: [signature] Date: 4-27-15

Not Calibrated

Ethanol
Isopropyl Alcohol

Revision 4
03/27/2013
C:\Users\bergerb\Desktop\GCMS VOA ICAL supp.doc

Sequence Name: C:\HPCHEM\1\SEQUENCE\042715i.S
Comment:
Operator: moanm
Data Path: C:\HPCHEM\1\data\042715i\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: Z
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 631
Lims Batch: 274661

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	Z6760	BFB	bfb 631
2	Sample	1	Z6761	8260	blk
3	Sample	2	Z6762	8260	blk
4	Sample	3	Z6763	8260	blk
5	Sample	4	Z6764	8260	ic
6	Sample	5	Z6765	8260	ic
7	Sample	6	Z6766	8260	ic
8	Sample	7	Z6767	8260	ic
9	Sample	8	Z6768	8260	ic
10	Sample	9	Z6769	8260	ic
11	Sample	10	Z6770	8260	ic
12	Sample	11	Z6771	8260	blk
13	Sample	12	Z6772	8260	icv
14	Sample	13	Z6773	8260	ic
15	Sample	14	Z6774	8260	ic
16	Sample	15	Z6775	8260	ic
17	Sample	16	Z6776	8260	icis
18	Sample	17	Z6777	8260	ic
19	Sample	18	Z6778	8260	ic
20	Sample	19	Z6779	8260	icv
21	Sample	20	Z6780	8260	icv
22	Sample	22	Z6781	8260	mdlv
23	Sample	23	Z6782	8260	mdlv
24	Sample	24	Z6783	8260	mdlv
25	Sample	25	Z6784	8260	mdlv
26	Sample	26	Z6785	8260	mdlv
27	Sample	27	Z6786	8260	mdlv
28	Sample	28	Z6787	8260	mdlv
29	Sample	29	Z6788	8260	mdlv
30	Sample	30	Z6789	8260	mdlv
31	Sample	31	Z6790	8260	mdlv

4/27/15

TestAmerica Laboratories
Worklist Report

Worklist Name: 042715i
Worklist Number: 34370
Instrument Name: VMS_Z
Chrom Method: AQ_VMSZ_8260
Purge Volume: 20.00
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_Z\20150427-34370.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00042 Amount Added: 0.800000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0034370-001	# 1 BFB	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0034370-002	# 2 CCV	MV-Main A_00022 MV-2cleve+AVA_00009 MV-Gas/Ket A_00032	CCV		voaWater	20.00	mL	1.000000
280-0034370-003	# 3 CCV	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0034370-004	# 4 LCS	MV-Main B_00009 MV-Gas/Ket B_00018 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0034370-005	# 5 LCSD	MV-Main B_00009 MV-Gas/Ket B_00018 MV-SS 2-Cleve_00020	LCSD		voaWater	20.00	mL	1.000000
280-0034370-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0034370-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0034370-008	# 8 280-62974-A-2		Client		voaWater	20.00	mL	1.000000
280-0034370-009	# 9 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0034370-010	#10 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	1	voaWater	20.00	mL	1.000000
280-0034370-011	#11 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	2	voaWater	20.00	mL	1.000000
280-0034370-012	#12 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0034370-013	#13 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	4	voaWater	20.00	mL	1.000000
280-0034370-014	#14 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	5	voaWater	20.00	mL	1.000000
280-0034370-015	#15 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	6	voaWater	20.00	mL	1.000000
280-0034370-016	#16 ic	MV-567649-D_00001 MV-Gas/Ket A_00032 MV-Main A_00022 MV-2cleve+AVA_00009	IC	7	voaWater	20.00	mL	1.000000
280-0034370-017	#17 icv	MV-567649-D_00001 MV-Gas/Ket B_00018 MV-Main B_00009 MV-SS 2-Cleve_00020	ICV		voaWater	20.00	mL	1.000000
280-0034370-018	#18 ic	MV-ARCH SS A_00042 MV-567649-D_00001 MV-Supp A_00011	IC	2	voaWater	20.00	mL	1.000000
280-0034370-019	#19 ic	MV-567649-D_00001 MV-ARCH SS A_00042 MV-Supp A_00011	IC	3	voaWater	20.00	mL	1.000000
280-0034370-020	#20 ic	MV-567649-D_00001 MV-ARCH SS A_00042 MV-Supp A_00011	IC	4	voaWater	20.00	mL	1.000000
280-0034370-021	#21 icis	MV-567649-D_00001 MV-ARCH SS A_00042 MV-Supp A_00011	ICIS	5	voaWater	20.00	mL	1.000000
280-0034370-022	#22 ic	MV-567649-D_00001 MV-ARCH SS A_00042 MV-Supp A_00011	IC	6	voaWater	20.00	mL	1.000000
280-0034370-023	#23 ic	MV-567649-D_00001 MV-ARCH SS A_00042 MV-Supp A_00011	IC	7	voaWater	20.00	mL	1.000000
280-0034370-024	#24 icv	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00042	ICV		voaWater	20.00	mL	1.000000
280-0034370-025	#25 mdlv	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	MDLV		voaWater	20.00	mL	1.000000
280-0034370-026	#26 mdlv	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	MDLV		voaWater	20.00	mL	1.000000
280-0034370-027	#27 mdlv	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	MDLV		voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0034370-028	#28 mdlv	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	MDLV		voaWater	20.00	mL	1.000000
280-0034370-029	#29 mdlv	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	MDLV		voaWater	20.00	mL	1.000000
280-0034370-030	#30 mdlv	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00042	MDLV		voaWater	20.00	mL	1.000000
280-0034370-031	#31 mdlv	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00042	MDLV		voaWater	20.00	mL	1.000000
280-0034370-032	#32 mdlv	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00042	MDLV		voaWater	20.00	mL	1.000000
280-0034370-033	#33 mdlv	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00042	MDLV		voaWater	20.00	mL	1.000000
280-0034370-034	#34 mdlv	MV-567649-D_00001 MV-Supp B_00005	MDLV		voaWater	20.00	mL	1.000000
280-0034370-035	#35 Samp 35		Client		voaWater	20.00	mL	1.000000

TestAmerica Denver **Main/2-Cleve/SS**

GC/MS Initial Calibration Review Checklist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: Z 5/14/15 ICAL Batch/ICV lines **277378 ICV 16**
Calibration Event 22305 Work List 34999 2nd Day Batch/ICV lines **N/A**.
Check Method Used: Analysis ☐ 624 ■ 8260B ☐ Other VOA **NA**.

VOA Preparation ☐ 5mL ■ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	----- Level 1 ----- Yes	No	N/A	Level 2	Comments
Initial Calibration					
1. BFB meets criteria?	X			α	
2. ICAL date and instrument ID verified?	X			α	
3. Does the Form VI match the data in the Chrom source method?	X			α	
4. Sufficient number of calibration points used?	X			α	
5. Reasons for removal of points documented?	X			α	Some points <RL removed
6. %RSD or correlation coefficient within method limits?	X			α	
7. Response factors meet criteria?	X			α	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	X			α	
9. Data checked for detector saturation?	X			α	
10. Label number of standards used recorded?	X			α	
11. Manual integrations documented and checked?	X			α	Numerous, see TALS batch
12. 2nd source ICV recovery 80-120% (±20%drift) for DoD projects, 65-135% (±35%,or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	X			α	

Not calibrated for 1,4-Dioxane

1st Level Reviewer: [signature] Date: 5-14-15

2nd Level Reviewer: [signature] Date: 5-14-15

Revision 4
03/27/2013
C:\Users\moanm\Desktop\GCMS VOA ICAL Rev 4.doc

Sequence Name: C:\HPCHEM\1\SEQUENCE\051415am.S
Comment:
Operator: moanm
Data Path: C:\HPCHEM\1\data\051415am\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: Z
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 7:49 - 14:47
Lime Batch: 277378
34999

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	Z7563	BFB	bfb
2	Sample	1	Z7564	8260	ccv
3	Sample	2	Z7565	8260	blk
4	Sample	3	Z7566	8260	ic
5	Sample	4	Z7567	8260	ic
6	Sample	99	Z7568	BFB	bfb
7	Sample	1	Z7569	8260	ccv
8	Sample	2	Z7570	8260	ic
9	Sample	3	Z7571	8260	ic
10	Sample	4	Z7572	8260	ic
11	Sample	5	Z7573	8260	ic
12	Sample	6	Z7574	8260	ic
13	Sample	7	Z7575	8260	ic
14	Sample	8	Z7576	8260	ic
15	Sample	9	Z7577	8260	blk
16	Sample	10	Z7578	8260	icv
17	Sample	11	Z7579	8260	lcs
18	Sample	12	Z7580	8260	mb - DMT not needed
19	Sample	13	Z7581	8260	280-68855-B-3 ph<2
20	Sample	14	Z7582	8260	mb - DMT, not needed
21	Sample	15	Z7583	8260	280-68855-B-4 ph<2
22	Sample	16	Z7584	8260	280-68855-B-5 ph<2
23	Sample	17	Z7585	8260	mb
24	Sample	18	Z7586	8260	ccvc

TestAmerica Laboratories
Worklist Report

Worklist Name: 051415am
Worklist Number: 34999
Instrument Name: VMS_Z
Chrom Method: AQ_VMSZ_8260
Purge Volume: 20.00
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_Z\20150514-34999.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00042 Amount Added: 0.840000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0034999-001	# 1 BFB	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0034999-002	# 2 CCV	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	CCV		voaWater	20.00	mL	1.000000
280-0034999-003	# 3 CCV	MV-Supp A_00011 MV-567649-D_00001	CCV		voaWater	20.00	mL	1.000000
280-0034999-004	# 4 LCS	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0034999-005	# 5 LCSD	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCSD		voaWater	20.00	mL	1.000000
280-0034999-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0034999-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0034999-008	# 8 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0034999-009	# 9 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009	IC	1	voaWater	20.00	mL	1.000000
280-0034999-010	#10 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009 MV-ARCH SS A_00042	IC	2	voaWater	20.00	mL	1.000000
280-0034999-011	#11 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009 MV-ARCH SS A_00042	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0034999-012	#12 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009 MV-ARCH SS A_00042	IC	4	voaWater	20.00	mL	1.000000
280-0034999-013	#13 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009 MV-ARCH SS A_00042	IC	5	voaWater	20.00	mL	1.000000
280-0034999-014	#14 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009 MV-ARCH SS A_00042	IC	6	voaWater	20.00	mL	1.000000
280-0034999-015	#15 ic	MV-567649-D_00001 MV-Main A_00022 MV-Gas/Ket A_00032 MV-2cleve+AVA_00009 MV-ARCH SS A_00042	IC	7	voaWater	20.00	mL	1.000000
280-0034999-016	#16 icv	MV-567649-D_00001 MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020 MV-ARCH SS A_00042	ICV		voaWater	20.00	mL	1.000000
280-0034999-017	#17 lcs	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0034999-018	#18 mb		MB		voaWater	20.00	mL	1.000000
280-0034999-019	#19 Samp 19		Client		voaWater	20.00	mL	1.000000

TestAmerica Denver **Surrogate only**

GC/MS Initial Calibration Review Checklist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: Z 5/18/15 ICAL Batch/ICV lines ~~277378~~ 277857 **ICV 16** 5-18-15

Calibration Event 22333 Work List 35108 2nd Day Batch/ICV lines **N/A**.

Check Method Used: Analysis ☐ 624 ■ 8260B ☐ Other VOA **NA**.

VOA Preparation ☐ 5mL ■ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	----- Level 1 ----- Yes	No	N/A	Level 2	Comments
Initial Calibration					
1. BFB meets criteria?	X				
2. ICAL date and instrument ID verified?	X				
3. Does the Form VI match the data in the Chrom source method?	X				
4. Sufficient number of calibration points used?	X				
5. Reasons for removal of points documented?			X		
6. %RSD or correlation coefficient within method limits?	X				
7. Response factors meet criteria?	X				
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	X				
9. Data checked for detector saturation?	X				
10. Label number of standards used recorded?	X				
11. Manual integrations documented and checked?			X		
12. 2nd source ICV recovery 80-120% (±20%drift) for DoD projects, 65-135% (±35%,or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	X				

1st Level Reviewer: MM Date: 5-18-15

2nd Level Reviewer: [illegible] Date: 5-18-15

Revision 4
03/27/2013
C:\Users\moanm\Desktop\GCMS VOA ICAL Rev 4.doc

Sequence Name: C:\HPCHEM\1\SEQUENCE\051815am.S
Comment:
Operator: moanm
Data Path: C:\HPCHEM\1\data\051815am\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: 2
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 7:01-18:14
Lime Batch: 277857
Lz 35108

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	Z7646	BFB	bfb
2	Sample	99	Z7647	BFB	bfb
3	Sample	1	Z7648	8260	ccv
4	Sample	2	Z7649	8260	ccv
5	Sample	3	Z7650	8260	lcs
6	Sample	4	Z7651	8260	mb
7	Sample	5	Z7652	8260	280-69037-A-10 ph~7 -DNR, not needed
8	Sample	6	Z7653	8260	mb
9	Sample	7	Z7654	8260	blk
10	Sample	8	Z7655	8260	ccv m17
11	Sample	9	Z7656	8260	ccv m17
12	Sample	10	Z7657	8260	ic
13	Sample	11	Z7658	8260	ic
14	Sample	12	Z7659	8260	ic
15	Sample	13	Z7660	8260	ic
16	Sample	14	Z7661	8260	ic
17	Sample	15	Z7662	8260	icv
18	Sample	16	Z7663	8260	lcs
19	Sample	17	Z7664	8260	mb
20	Sample	18	Z7665	8260	280-69094-A-5 ph<2
21	Sample	19	Z7666	8260	280-69094-G-1 ph<2 0.2mL -E
22	Sample	20	Z7667	8260	280-69094-G-1 ph<2 0.02mL -D
23	Sample	22	Z7668	8260	280-69094-G-2 ph<2 2mL -D:1 for matrix
24	Sample	23	Z7669	8260	280-69094-G-2 ph<2 0.2mL -DNR, not needed
25	Sample	24	Z7670	8260	280-69094-I-3 ph<2 1mL -D
26	Sample	25	Z7671	8260	280-69094-I-3 ph<2 0.1mL -DNR, not needed
27	Sample	26	Z7672	8260	280-69094-G-4 ph<2 5mL -D
28	Sample	27	Z7673	8260	280-69094-G-4 ph<2 0.5mL -DNR, not needed
29	Sample	28	Z7674	8260	280-69017-A-1 ph<2
30	Sample	29	Z7675	8260	280-69017-G-4 ph<2
31	Sample	30	Z7676	8260	280-69094-I-3 ph<2 10mL -E
32	Sample	31	Z7677	8260	280-69094-I-4 ph<2 -E

TestAmerica Laboratories
Worklist Report

Worklist Name: 051815am
Worklist Number: 35108
Instrument Name: VMS_Z
Chrom Method: AQ_VMSZ_8260
Purge Volume: 20.00
Units: mL
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_Z\20150518-35108.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00042 Amount Added: 0.820000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035108-001	# 1 BFB	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035108-002	# 2 CCV	MV-567649-D_00001 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	CCV		voaWater	20.00	mL	1.000000
280-0035108-003	# 3 CCV	MV-Supp A_00011 MV-567649-D_00001	CCV		voaWater	20.00	mL	1.000000
280-0035108-004	# 4 LCS	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0035108-005	# 5 LCSD	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCSD		voaWater	20.00	mL	1.000000
280-0035108-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0035108-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0035108-008	# 8 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0035108-009	# 9 CCV	MV-567649-D_00001 MV-Main A_00022	CCV		voaWater	20.00	mL	1.000000
280-0035108-010	#10 CCV	MV-567649-D_00001 MV-Main A_00022	CCV		voaWater	20.00	mL	1.000000
280-0035108-011	#11 ic	MV-567649-D_00001 MV-ARCH SS A_00042	IC	3	voaWater	20.00	mL	1.000000
280-0035108-012	#12 ic	MV-567649-D_00001 MV-ARCH SS A_00042	IC	4	voaWater	20.00	mL	1.000000
280-0035108-013	#13 ic	MV-567649-D_00001 MV-ARCH SS A_00042	IC	5	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035108-014	#14 ic	MV-567649-D_00001 MV-ARCH SS A_00042	IC	6	voaWater	20.00	mL	1.000000
280-0035108-015	#15 ic	MV-567649-D_00001 MV-ARCH SS A_00042	IC	7	voaWater	20.00	mL	1.000000
280-0035108-016	#16 icv	MV-567649-D_00001 MV-ARCH SS A_00042	ICV		voaWater	20.00	mL	1.000000
280-0035108-017	#17 lcs	MV-Main B_00009 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0035108-018	#18 mb		MB		voaWater	20.00	mL	1.000000
280-0035108-019	#19 Samp 19		Client		voaWater	20.00	mL	1.000000

Shipping and Receiving Documents

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of C

280-68970 Chain of Custody

1 cooler

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: D. Le	Lab PM: Walker, Elaine M	Carrier Tracking No(s): FedEx #: 8065 2457 2140	COC No: 280-36098-14680.7
Client Contact: ~~Mr. Steve Gragert~~ Anna Zabierek	Phone: 512-346-4474	E-Mail: elaine.walker@testamericainc.com		Page: 1
Company: ~~URS Corporation~~ GSI Environmental				Job #: 3969-211
Address: ~~12120 Shamrock Plaza, Suite 300~~ 9600 Great Hills Trail Suite 300E	Due Date Requested:			
City: ~~Omaha~~ Austin	TAT Requested (days): Standard TAT (Unless noted)			
State, Zip: ~~NE, 68154~~ TX 78759				
Phone: 512-346-4474	PO #: 306387 3969-211			
Email: ~~steve.gragert@urs.com~~ alw@gsinet.com	WO #: 16170799 / Vendor # 1427536			
Project Name: McConnell AFB LTM & IMPM	Project #: 28003908 3969-211			
Site: SWMU207	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B-DOD5-VOCs-Water	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
54403-TB13-0515	5/7/15	—	G	W			X		
54400-MW~~28~~30-0515	5/7/15	1721	|	|			|		Rapid TAT
54400-MW46D-0515	5/8/15	0840	|	|			|		
54401-MW46D-0515-Dup	5/8/15	0840	|	|			|		
54402-EB15-0515	5/8/15	1000	↓	↓			↓		
54402-EB14-0515	5/7/15	1740	↓	↓			↓		

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

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

Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 5/8/15 1130	Company: GSI	Received by: [signature]	Date/Time: 5-9-15 9:15	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.3 IR 10.2 Transferred by MS 5/9/15

Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 280-68970-1

Login Number: 68970
List Number: 1
Creator: Dedio, Michael T

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	