

ANALYTICAL REPORT

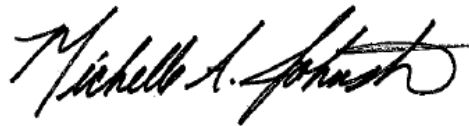
Job Number: 280-76532-2

Job Description: Fort Wingate, New Mexico

For:

Sundance Consulting, Inc
6700 Jefferson Blvd NE
Albuquerque, NM 87109

Attention: JohnDavid Nance



Approved for release.
Michelle A Johnston
Project Manager II
11/28/2015 12:18 PM

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11/28/2015

cc: Elizabeth Farias
Jim Lockhart
Ben Moayyad
Mr. Doug Scott

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, 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.

TestAmerica Laboratories, Inc.

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Table of Contents

Cover Title Page	1
Data Summaries	4
Report Narrative	4
Manual Integration Summary	5
Sample Summary	8
Executive Summary	9
Method Summary	10
Method / Analyst Summary	11
Sample Datasheets	12
Surrogate Summary	17
QC Data Summary	18
Data Qualifiers	20
QC Association Summary	21
Lab Chronicle	22
Reagent Traceability	24
COAs	106
Certification Summary	226
Organic Sample Data	227
GC/MS Semi VOA	227
Method 8270D	227
Method 8270D QC Summary	228
Method 8270D Sample Data	237
Standards Data	267
Method 8270D ICAL Data	267
Method 8270D CCAL Data	315
Raw QC Data	326

Table of Contents

Method 8270D Tune Data	326
Method 8270D Blank Data	336
Method 8270D LCS/LCSD Data	342
Method 8270D MS/MSD Data	348
Method 8270D Run Logs	362
Method 8270D Prep Data	364
Shipping and Receiving Documents	366
Client Chain of Custody	367
Sample Receipt Checklist	372

CASE NARRATIVE
Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-76532-2

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.

Sample Receipt

Five samples were received on 11/7/2015 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 0.2°C, 0.5°C, 0.9°C, 1.5°C, 1.8°C, 2.2°C and 3.4°C.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-76532-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW38102015 (280-76532-3), MW23102015 (280-76532-4), DMW23102015 (280-76532-5), TMW15102015 (280-76532-6) and DTW15102015 (280-76532-7) were analyzed for semivolatile organic compounds (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 11/10/2015 and analyzed on 11/16/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

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

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Instrument ID: SMS_K Analysis Batch Number: 304153Lab Sample ID: ICIS 280-304153/3 Client Sample ID: _____Date Analyzed: 11/12/15 12:40 Lab File ID: K141243.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.35	Split Peak	kiekeld	11/14/15 16:28

Lab Sample ID: STD004 280-304153/4 IC Client Sample ID: _____Date Analyzed: 11/12/15 13:08 Lab File ID: K141244.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.36	Baseline	kiekeld	11/16/15 09:01

Lab Sample ID: STD050 280-304153/7 IC Client Sample ID: _____Date Analyzed: 11/12/15 14:31 Lab File ID: K141247.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.33	Split Peak	hoeflera	11/14/15 16:46

Lab Sample ID: STD120 280-304153/8 IC Client Sample ID: _____Date Analyzed: 11/12/15 14:59 Lab File ID: K141248.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.35	Shouldering	hoeflera	11/14/15 16:48

Lab Sample ID: STD160 280-304153/9 IC Client Sample ID: _____Date Analyzed: 11/12/15 15:27 Lab File ID: K141249.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.36	Shouldering	hoeflera	11/14/15 16:50

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Instrument ID: SMS_K Analysis Batch Number: 304153

Lab Sample ID: STD200 280-304153/10 IC Client Sample ID: _____

Date Analyzed: 11/12/15 15:55 Lab File ID: K141250.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.37	Shouldering	hoeflera	11/14/15 16:52

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Instrument ID: SMS_K Analysis Batch Number: 304326Lab Sample ID: CCV 280-304326/3 Client Sample ID: _____Date Analyzed: 11/16/15 16:30 Lab File ID: K141348.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.35	Shouldering	hoeflera	11/17/15 12:42

Lab Sample ID: LCS 280-304110/2-A Client Sample ID: _____Date Analyzed: 11/16/15 18:15 Lab File ID: K141352.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.34	Shouldering	hoeflera	11/17/15 12:48

Lab Sample ID: 280-76532-4 MS Client Sample ID: MW23102015MS MSDate Analyzed: 11/16/15 21:59 Lab File ID: K141360.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.34	Shouldering	hoeflera	11/17/15 13:25

Lab Sample ID: 280-76532-4 MSD Client Sample ID: MW23102015MSD MSDDate Analyzed: 11/16/15 22:27 Lab File ID: K141361.D GC Column: Vf-5MS (30.25 ID: 0.25 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.34	Shouldering	hoeflera	11/17/15 13:30

SAMPLE SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-76532-3	TMW38102015	Water	11/06/2015 1000	11/07/2015 0845
280-76532-4	MW23102015	Water	11/06/2015 0835	11/07/2015 0845
280-76532-4MS	MW23102015MS	Water	11/06/2015 0835	11/07/2015 0845
280-76532-4MSD	MW23102015MSD	Water	11/06/2015 0835	11/07/2015 0845
280-76532-5	DMW23102015	Water	11/06/2015 0835	11/07/2015 0845
280-76532-6	TMW15102015	Water	11/06/2015 0905	11/07/2015 0845
280-76532-7	DTW15102015	Water	11/06/2015 0905	11/07/2015 0845

EXECUTIVE SUMMARY - Detections

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
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No Detections

METHOD SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270D	
Liquid-Liquid Extraction (Continuous)	TAL DEN		SW846 3520C

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: Sundance Consulting, Inc

Job Number: 280-76532-2

Method	Analyst	Analyst ID
SW846 8270D	Hoefler, Alexandra F	AFH

Analytical Data

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Client Sample ID: TMW38102015

Lab Sample ID: 280-76532-3

Date Sampled: 11/06/2015 1000

Client Matrix: Water

Date Received: 11/07/2015 0845

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D	Analysis Batch: 280-304326	Instrument ID: SMS_K
Prep Method: 3520C	Prep Batch: 280-304110	Lab File ID: K141358.D
Dilution: 1.0		Initial Weight/Volume: 969.9 mL
Analysis Date: 11/16/2015 2103		Final Weight/Volume: 1 mL
Prep Date: 11/10/2015 1505		Injection Volume: 0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.6	U	2.6	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	90		42 - 131
2-Fluorobiphenyl	83		48 - 120
2-Fluorophenol (Surr)	86		41 - 120
Nitrobenzene-d5 (Surr)	87		42 - 120
Phenol-d5 (Surr)	89		45 - 124
Terphenyl-d14 (Surr)	65		20 - 130

Analytical Data

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Client Sample ID: MW23102015

Lab Sample ID: 280-76532-4

Date Sampled: 11/06/2015 0835

Client Matrix: Water

Date Received: 11/07/2015 0845

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D	Analysis Batch: 280-304326	Instrument ID: SMS_K
Prep Method: 3520C	Prep Batch: 280-304110	Lab File ID: K141359.D
Dilution: 1.0		Initial Weight/Volume: 987.9 mL
Analysis Date: 11/16/2015 2131		Final Weight/Volume: 1 mL
Prep Date: 11/10/2015 1505		Injection Volume: 0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	93		42 - 131
2-Fluorobiphenyl	84		48 - 120
2-Fluorophenol (Surr)	86		41 - 120
Nitrobenzene-d5 (Surr)	88		42 - 120
Phenol-d5 (Surr)	89		45 - 124
Terphenyl-d14 (Surr)	58		20 - 130

Analytical Data

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Client Sample ID: DMW23102015

Lab Sample ID: 280-76532-5

Date Sampled: 11/06/2015 0835

Client Matrix: Water

Date Received: 11/07/2015 0845

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D	Analysis Batch: 280-304326	Instrument ID: SMS_K
Prep Method: 3520C	Prep Batch: 280-304110	Lab File ID: K141362.D
Dilution: 1.0		Initial Weight/Volume: 973 mL
Analysis Date: 11/16/2015 2254		Final Weight/Volume: 1 mL
Prep Date: 11/10/2015 1505		Injection Volume: 0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.6	U	2.6	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	90		42 - 131
2-Fluorobiphenyl	80		48 - 120
2-Fluorophenol (Surr)	84		41 - 120
Nitrobenzene-d5 (Surr)	84		42 - 120
Phenol-d5 (Surr)	86		45 - 124
Terphenyl-d14 (Surr)	55		20 - 130

Analytical Data

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Client Sample ID: TMW15102015

Lab Sample ID: 280-76532-6

Date Sampled: 11/06/2015 0905

Client Matrix: Water

Date Received: 11/07/2015 0845

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D	Analysis Batch: 280-304326	Instrument ID: SMS_K
Prep Method: 3520C	Prep Batch: 280-304110	Lab File ID: K141363.D
Dilution: 1.0		Initial Weight/Volume: 1011.5 mL
Analysis Date: 11/16/2015 2322		Final Weight/Volume: 1 mL
Prep Date: 11/10/2015 1505		Injection Volume: 0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	87		42 - 131
2-Fluorobiphenyl	80		48 - 120
2-Fluorophenol (Surr)	72		41 - 120
Nitrobenzene-d5 (Surr)	83		42 - 120
Phenol-d5 (Surr)	78		45 - 124
Terphenyl-d14 (Surr)	85		20 - 130

Analytical Data

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Client Sample ID: DTW15102015

Lab Sample ID: 280-76532-7

Date Sampled: 11/06/2015 0905

Client Matrix: Water

Date Received: 11/07/2015 0845

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D	Analysis Batch: 280-304326	Instrument ID: SMS_K
Prep Method: 3520C	Prep Batch: 280-304110	Lab File ID: K141364.D
Dilution: 1.0		Initial Weight/Volume: 966.2 mL
Analysis Date: 11/16/2015 2350		Final Weight/Volume: 1 mL
Prep Date: 11/10/2015 1505		Injection Volume: 0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.6	U	2.6	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	81		42 - 131
2-Fluorobiphenyl	77		48 - 120
2-Fluorophenol (Surr)	78		41 - 120
Nitrobenzene-d5 (Surr)	82		42 - 120
Phenol-d5 (Surr)	79		45 - 124
Terphenyl-d14 (Surr)	76		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
280-76532-3	TMW38102015	86	89	87	83	90	65
280-76532-4	MW23102015	86	89	88	84	93	58
280-76532-5	DMW23102015	84	86	84	80	90	55
280-76532-6	TMW15102015	72	78	83	80	87	85
280-76532-7	DTW15102015	78	79	82	77	81	76
MB 280-304110/1-A		89	91	86	85	78	91
LCS 280-304110/2-A		87	88	88	87	88	86
280-76532-4 MS	MW23102015MS MS	96	97	103	92	96	61
280-76532-4 MSD	MW23102015MSD MSD	91	93	99	88	97	57

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	41-120
PHL = Phenol-d5 (Surr)	45-124
NBZ = Nitrobenzene-d5 (Surr)	42-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	42-131
TPH = Terphenyl-d14 (Surr)	20-130

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Method Blank - Batch: 280-304110

Method: 8270D
Preparation: 3520C

Lab Sample ID: MB 280-304110/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/16/2015 1748
Prep Date: 11/10/2015 1505
Leach Date: N/A

Analysis Batch: 280-304326
Prep Batch: 280-304110
Leach Batch: N/A
Units: ug/L

Instrument ID: SMS_K
Lab File ID: K141351.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 0.5 uL

Analyte	Result	Qual	MDL	RL
Caprolactam	2.5	U	2.5	5.0
Surrogate	% Rec		Acceptance Limits	
2,4,6-Tribromophenol (Surr)	78		42 - 131	
2-Fluorobiphenyl	85		48 - 120	
2-Fluorophenol (Surr)	89		41 - 120	
Nitrobenzene-d5 (Surr)	86		42 - 120	
Phenol-d5 (Surr)	91		45 - 124	
Terphenyl-d14 (Surr)	91		20 - 130	

Lab Control Sample - Batch: 280-304110

Method: 8270D
Preparation: 3520C

Lab Sample ID: LCS 280-304110/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/16/2015 1815
Prep Date: 11/10/2015 1505
Leach Date: N/A

Analysis Batch: 280-304326
Prep Batch: 280-304110
Leach Batch: N/A
Units: ug/L

Instrument ID: SMS_K
Lab File ID: K141352.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 0.5 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Caprolactam	80.0	72.6	91	46 - 143	
Surrogate		% Rec		Acceptance Limits	
2,4,6-Tribromophenol (Surr)		88		42 - 131	
2-Fluorobiphenyl		87		48 - 120	
2-Fluorophenol (Surr)		87		41 - 120	
Nitrobenzene-d5 (Surr)		88		42 - 120	
Phenol-d5 (Surr)		88		45 - 124	
Terphenyl-d14 (Surr)		86		20 - 130	

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-304110**

**Method: 8270D
Preparation: 3520C**

MS Lab Sample ID: 280-76532-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/16/2015 2159
Prep Date: 11/10/2015 1505
Leach Date: N/A

Analysis Batch: 280-304326
Prep Batch: 280-304110
Leach Batch: N/A

Instrument ID: SMS_K
Lab File ID: K141360.D
Initial Weight/Volume: 967.5 mL
Final Weight/Volume: 1 mL
Injection Volume: 0.5 uL

MSD Lab Sample ID: 280-76532-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/16/2015 2227
Prep Date: 11/10/2015 1505
Leach Date: N/A

Analysis Batch: 280-304326
Prep Batch: 280-304110
Leach Batch: N/A

Instrument ID: SMS_K
Lab File ID: K141361.D
Initial Weight/Volume: 978.3 mL
Final Weight/Volume: 1 mL
Injection Volume: 0.5 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Caprolactam	94	97	46 - 143	2	30		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
2,4,6-Tribromophenol (Surr)		96	97			42 - 131	
2-Fluorobiphenyl		92	88			48 - 120	
2-Fluorophenol (Surr)		96	91			41 - 120	
Nitrobenzene-d5 (Surr)		103	99			42 - 120	
Phenol-d5 (Surr)		97	93			45 - 124	
Terphenyl-d14 (Surr)		61	57			20 - 130	

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-304110**

**Method: 8270D
Preparation: 3520C**

MS Lab Sample ID: 280-76532-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/16/2015 2159
Prep Date: 11/10/2015 1505
Leach Date: N/A

Units: ug/L

MSD Lab Sample ID: 280-76532-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/16/2015 2227
Prep Date: 11/10/2015 1505
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Caprolactam	2.5 U	82.7	81.8	77.6	79.2

DATA REPORTING QUALIFIERS

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Lab Section	Qualifier	Description
GC/MS Semi VOA	U	Indicates the analyte was analyzed for but not detected.

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-304110					
LCS 280-304110/2-A	Lab Control Sample	T	Water	3520C	
MB 280-304110/1-A	Method Blank	T	Water	3520C	
280-76532-3	TMW38102015	T	Water	3520C	
280-76532-4	MW23102015	T	Water	3520C	
280-76532-4MS	Matrix Spike	T	Water	3520C	
280-76532-4MSD	Matrix Spike Duplicate	T	Water	3520C	
280-76532-5	DMW23102015	T	Water	3520C	
280-76532-6	TMW15102015	T	Water	3520C	
280-76532-7	DTW15102015	T	Water	3520C	
Analysis Batch:280-304326					
LCS 280-304110/2-A	Lab Control Sample	T	Water	8270D	280-304110
MB 280-304110/1-A	Method Blank	T	Water	8270D	280-304110
280-76532-3	TMW38102015	T	Water	8270D	280-304110
280-76532-4	MW23102015	T	Water	8270D	280-304110
280-76532-4MS	Matrix Spike	T	Water	8270D	280-304110
280-76532-4MSD	Matrix Spike Duplicate	T	Water	8270D	280-304110
280-76532-5	DMW23102015	T	Water	8270D	280-304110
280-76532-6	TMW15102015	T	Water	8270D	280-304110
280-76532-7	DTW15102015	T	Water	8270D	280-304110

Report Basis

T = Total

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Laboratory Chronicle

Lab ID: 280-76532-3

Client ID: TMW38102015

Sample Date/Time: 11/06/2015 10:00 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76532-C-3-B		280-304326	280-304110	11/10/2015 15:05	1	TAL DEN	GLK
A:8270D	280-76532-C-3-B		280-304326	280-304110	11/16/2015 21:03	1	TAL DEN	AFH

Lab ID: 280-76532-4

Client ID: MW23102015

Sample Date/Time: 11/06/2015 08:35 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76532-E-4-B		280-304326	280-304110	11/10/2015 15:05	1	TAL DEN	GLK
A:8270D	280-76532-E-4-B		280-304326	280-304110	11/16/2015 21:31	1	TAL DEN	AFH

Lab ID: 280-76532-4

Client ID: MW23102015MS

Sample Date/Time: 11/06/2015 08:35 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76532-F-4-B MS		280-304326	280-304110	11/10/2015 15:05	1	TAL DEN	GLK
A:8270D	280-76532-F-4-B MS		280-304326	280-304110	11/16/2015 21:59	1	TAL DEN	AFH

Lab ID: 280-76532-4

Client ID: MW23102015MSD

Sample Date/Time: 11/06/2015 08:35 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76532-I-4-B MSD		280-304326	280-304110	11/10/2015 15:05	1	TAL DEN	GLK
A:8270D	280-76532-I-4-B MSD		280-304326	280-304110	11/16/2015 22:27	1	TAL DEN	AFH

Lab ID: 280-76532-5

Client ID: DMW23102015

Sample Date/Time: 11/06/2015 08:35 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76532-C-5-B		280-304326	280-304110	11/10/2015 15:05	1	TAL DEN	GLK
A:8270D	280-76532-C-5-B		280-304326	280-304110	11/16/2015 22:54	1	TAL DEN	AFH

Lab ID: 280-76532-6

Client ID: TMW15102015

Sample Date/Time: 11/06/2015 09:05 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76532-B-6-B		280-304326	280-304110	11/10/2015 15:05	1	TAL DEN	GLK
A:8270D	280-76532-B-6-B		280-304326	280-304110	11/16/2015 23:22	1	TAL DEN	AFH

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Laboratory Chronicle

Lab ID: 280-76532-7

Client ID: DTW15102015

Sample Date/Time: 11/06/2015 09:05 Received Date/Time: 11/07/2015 08:45

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:3520C	280-76532-A-7-B		280-304326	280-304110	11/10/2015	15:05	1	TAL DEN	GLK
A:8270D	280-76532-A-7-B		280-304326	280-304110	11/16/2015	23:50	1	TAL DEN	AFH

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:3520C	MB 280-304110/1-A		280-304326	280-304110	11/10/2015	15:05	1	TAL DEN	GLK
A:8270D	MB 280-304110/1-A		280-304326	280-304110	11/16/2015	17:48	1	TAL DEN	AFH

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:3520C	LCS 280-304110/2-A		280-304326	280-304110	11/10/2015	15:05	1	TAL DEN	GLK
A:8270D	LCS 280-304110/2-A		280-304326	280-304110	11/16/2015	18:15	1	TAL DEN	AFH

Lab References:

TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8270_LCS_Main_00026	08/31/16	09/25/15	P&T Methanol, Lot MethanolP&T_001122	500 mL	MS-569729_00035	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
Aniline	80 ug/mL							
Anthracene	80 ug/mL							
Azobenzene	80 ug/mL							
Benzo[a]anthracene	80 ug/mL							
Benzo[a]pyrene	80 ug/mL							
Benzo[b]fluoranthene	80 ug/mL							
Benzo[g,h,i]perylene	80 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00036	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00037	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00038	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00039	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00044	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00045	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00046	5 mL	1,1'-Biphenyl	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
MS-569731_00015					5 mL	Benzoic acid	80 ug/mL	
						Indene	80 ug/mL	
MS-569731_00016					5 mL	Benzoic acid	80 ug/mL	
						Indene	80 ug/mL	
MS-569731_00017					5 mL	Benzoic acid	80 ug/mL	
						Indene	80 ug/mL	
MS-569731_00018					5 mL	Benzoic acid	80 ug/mL	
						Indene	80 ug/mL	
.MS-569729_00035	12/31/16		Restek, Lot A0111934			(Purchased Reagent)	1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00036	12/31/16		Restek, Lot A0111934			(Purchased Reagent)	1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00037	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl) ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
Naphthalene	1000 ug/mL							
Nitrobenzene	1000 ug/mL							
Pentachlorophenol	2000 ug/mL							
Phenanthrene	1000 ug/mL							
Phenol	1000 ug/mL							
Pyrene	1000 ug/mL							
Pyridine	1000 ug/mL							
.MS-569729_00038	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
Pyrene	1000 ug/mL							
Pyridine	1000 ug/mL							
.MS-569729_00039	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00044	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00045	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
Nitrobenzene	1000 ug/mL							
Pentachlorophenol	2000 ug/mL							
Phenanthrene	1000 ug/mL							
Phenol	1000 ug/mL							
Pyrene	1000 ug/mL							
Pyridine	1000 ug/mL							
.MS-569729_00046	12/31/16		Restek, Lot A0111934		(Purchased Reagent)	1,1'-Biphenyl	1000 ug/mL	
						1,2,4,5-Tetrachlorobenzene	1000 ug/mL	
						1,2,4-Trichlorobenzene	1000 ug/mL	
						1,2-Dichlorobenzene	1000 ug/mL	
						1,2-Diphenylhydrazine	1010.97 ug/mL	
						1,3-Dichlorobenzene	1000 ug/mL	
						1,3-Dinitrobenzene	1000 ug/mL	
						1,4-Dichlorobenzene	1000 ug/mL	
						1,4-Dioxane	1000 ug/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz (a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569731_00015	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00016	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00017	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00018	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
8270_LCS_Supp_00137	11/19/15	11/12/15	P&T Methanol, Lot MethanolP&T_00124	50 mL	MS-569730_00023	2 mL	3,3'-Dichlorobenzidine	80 ug/mL
							Benzidine	80 ug/mL
					MS-569732_00026	2 mL	Atrazine	80 ug/mL
							Benzaldehyde	80 ug/mL
							Caprolactam	80 ug/mL
.MS-569730_00023	11/06/16		Restek, Lot A0112567		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
.MS-569732_00026	08/28/16		Restek, Lot A0108989		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
8270Surrogate_00086	10/16/16	10/16/15	ACETONE, Lot Acetone_000137	1000 mL	8270SurStkHL_00117	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00118	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00131	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
		Nitrobenzene-d5 (Surr)	100 ug/mL					
		Phenol-d5 (Surr)	100 ug/mL					
		Phenol-d6	100 ug/mL					
		Terphenyl-d14 (Surr)	100 ug/mL					
8270SurStkHL_00133	5 mL	2,4,6 - Tribromophenol	100 ug/mL					
		2,4,6-Tribromophenol (Surr)	100 ug/mL					
		2-Fluorobiphenyl	100 ug/mL					
		2-Fluorophenol (Surr)	100 ug/mL					
		Nitrobenzene-d5 (Surr)	100 ug/mL					
		Phenol-d5 (Surr)	100 ug/mL					
		Phenol-d6	100 ug/mL					
		Terphenyl-d14 (Surr)	100 ug/mL					
.8270SurStkHL_00117	05/31/19	Restek, Lot A0103615	(Purchased Reagent)	2,4,6 - Tribromophenol	5000 ug/mL			
				2,4,6-Tribromophenol (Surr)	5000 ug/mL			
				2-Fluorobiphenyl	5000 ug/mL			
				2-Fluorophenol (Surr)	5000 ug/mL			
				Nitrobenzene-d5 (Surr)	5000 ug/mL			
				Phenol-d5 (Surr)	5000 ug/mL			
				Phenol-d6	5000 ug/mL			
				Terphenyl-d14 (Surr)	5000 ug/mL			
.8270SurStkHL_00118	05/31/19	Restek, Lot A0103615	(Purchased Reagent)	2,4,6 - Tribromophenol	5000 ug/mL			
				2,4,6-Tribromophenol (Surr)	5000 ug/mL			
				2-Fluorobiphenyl	5000 ug/mL			
				2-Fluorophenol (Surr)	5000 ug/mL			
				Nitrobenzene-d5 (Surr)	5000 ug/mL			
				Phenol-d5 (Surr)	5000 ug/mL			
				Phenol-d6	5000 ug/mL			
				Terphenyl-d14 (Surr)	5000 ug/mL			
.8270SurStkHL_00131	05/31/19	Restek, Lot A0103615	(Purchased Reagent)	2,4,6 - Tribromophenol	5000 ug/mL			
				2,4,6-Tribromophenol (Surr)	5000 ug/mL			

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00133	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
MS-FAMSSV_100_00013	12/08/15	03/13/15	Methylene Chloride, Lot 87975	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA004_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	10 uL	Benzoic acid	8 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	4 ug/mL
							2-Fluorobiphenyl	4 ug/mL
							2-Fluorophenol (Surr)	4 ug/mL
							Nitrobenzene-d5 (Surr)	4 ug/mL
							Phenol-d5 (Surr)	4 ug/mL
							Terphenyl-d14 (Surr)	4 ug/mL
							Famphur	4 ug/mL
							1,1'-Biphenyl	4 ug/mL
							1,2,4,5-Tetrachlorobenzene	4 ug/mL
							1,2,4-Trichlorobenzene	4 ug/mL
							1,2-Dichlorobenzene	4 ug/mL
							1,2-Diphenylhydrazine	4.0439 ug/mL
							1,3-Dichlorobenzene	4 ug/mL
							1,3-Dinitrobenzene	4 ug/mL
							1,4-Dichlorobenzene	4 ug/mL
							1,4-Dioxane	4 ug/mL
							1-Methylnaphthalene	4 ug/mL
							2,2'-oxybis[1-chloropropane]	4 ug/mL
							2,3,4,6-Tetrachlorophenol	4 ug/mL
							2,4,5-Trichlorophenol	4 ug/mL
							2,4,6-Trichlorophenol	4 ug/mL
							2,4-Dichlorophenol	4 ug/mL
							2,4-Dimethylphenol	4 ug/mL
							2,4-Dinitrophenol	8 ug/mL
							2,4-Dinitrotoluene	4 ug/mL
							2,6-Dichlorophenol	4 ug/mL
							2,6-Dinitrotoluene	4 ug/mL
							2-Chloronaphthalene	4 ug/mL
							2-Chlorophenol	4 ug/mL
							2-Methylnaphthalene	4 ug/mL
							2-Methylphenol	4 ug/mL
							2-Nitroaniline	4 ug/mL
							2-Nitrophenol	4 ug/mL
							3 & 4 Methylphenol	4 ug/mL
							3-Methylphenol	4 ug/mL
							3-Nitroaniline	4 ug/mL
							4,6-Dinitro-2-methylphenol	8 ug/mL
							4-Bromophenyl phenyl ether	4 ug/mL
							4-Chloro-3-methylphenol	4 ug/mL
							4-Chloroaniline	4 ug/mL
							4-Chlorophenyl phenyl ether	4 ug/mL
							4-Methylphenol	4 ug/mL
							4-Nitroaniline	4 ug/mL
							4-Nitrophenol	8 ug/mL
							Acenaphthene	4 ug/mL
							Acenaphthylene	4 ug/mL
							Acetophenone	4 ug/mL
							Aniline	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	4 ug/mL
							Azobenzene	4 ug/mL
							Benzo[a]anthracene	4 ug/mL
							Benzo[a]pyrene	4 ug/mL
							Benzo[b]fluoranthene	4 ug/mL
							Benzo[g,h,i]perylene	4 ug/mL
							Benzo[k]fluoranthene	4 ug/mL
							Benzyl alcohol	4 ug/mL
							Bis (2-chloroethoxy)methane	4 ug/mL
							Bis (2-chloroethyl) ether	4 ug/mL
							Bis (2-ethylhexyl) phthalate	4 ug/mL
							Butyl benzyl phthalate	4 ug/mL
							Carbazole	4 ug/mL
							Chrysene	4 ug/mL
							Di-n-butyl phthalate	4 ug/mL
							Di-n-octyl phthalate	4 ug/mL
							Dibenz (a,h) anthracene	4 ug/mL
							Dibenzofuran	4 ug/mL
							Diethyl phthalate	4 ug/mL
							Dimethyl phthalate	4 ug/mL
							Fluoranthene	4 ug/mL
							Fluorene	4 ug/mL
							Hexachlorobenzene	4 ug/mL
							Hexachlorobutadiene	4 ug/mL
							Hexachlorocyclopentadiene	4 ug/mL
							Hexachloroethane	4 ug/mL
							Indeno[1,2,3-cd]pyrene	4 ug/mL
							Isophorone	4 ug/mL
							N-Nitrosodi-n-propylamine	4 ug/mL
							N-Nitrosodimethylamine	4 ug/mL
							N-Nitrosodiphenylamine	8 ug/mL
							Naphthalene	4 ug/mL
							Nitrobenzene	4 ug/mL
							Pentachlorophenol	8 ug/mL
							Phenanthrene	4 ug/mL
							Phenol	4 ug/mL
							Pyrene	4 ug/mL
							Pyridine	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Caprolactam	4 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL		
									2-Fluorobiphenyl	200 ug/mL
									2-Fluorophenol (Surr)	200 ug/mL
									Nitrobenzene-d5 (Surr)	200 ug/mL
									Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL		
					MS-568023_00010	1 mL	Famphur	200 ug/mL		
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL		
									1,2,4,5-Tetrachlorobenzene	200 ug/mL
									1,2,4-Trichlorobenzene	200 ug/mL
									1,2-Dichlorobenzene	200 ug/mL
									1,2-Diphenylhydrazine	202.195 ug/mL
									1,3-Dichlorobenzene	200 ug/mL
									1,3-Dinitrobenzene	200 ug/mL
									1,4-Dichlorobenzene	200 ug/mL
									1,4-Dioxane	200 ug/mL
									1-Methylnaphthalene	200 ug/mL
									2,2'-oxybis[1-chloropropane]	200 ug/mL
									2,3,4,6-Tetrachlorophenol	200 ug/mL
									2,4,5-Trichlorophenol	200 ug/mL
									2,4,6-Trichlorophenol	200 ug/mL
									2,4-Dichlorophenol	200 ug/mL
									2,4-Dimethylphenol	200 ug/mL
									2,4-Dinitrophenol	400 ug/mL
									2,4-Dinitrotoluene	200 ug/mL
									2,6-Dichlorophenol	200 ug/mL
									2,6-Dinitrotoluene	200 ug/mL
									2-Chloronaphthalene	200 ug/mL
									2-Chlorophenol	200 ug/mL
									2-Methylnaphthalene	200 ug/mL
									2-Methylphenol	200 ug/mL
									2-Nitroaniline	200 ug/mL
									2-Nitrophenol	200 ug/mL
									3 & 4 Methylphenol	200 ug/mL
									3-Methylphenol	200 ug/mL
									3-Nitroaniline	200 ug/mL
									4,6-Dinitro-2-methylphenol	400 ug/mL
									4-Bromophenyl phenyl ether	200 ug/mL
									4-Chloro-3-methylphenol	200 ug/mL
									4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL		
							4-Methylphenol	200 ug/mL		
							4-Nitroaniline	200 ug/mL		
							4-Nitrophenol	400 ug/mL		
							Acenaphthene	200 ug/mL		
							Acenaphthylene	200 ug/mL		
							Acetophenone	200 ug/mL		
							Aniline	200 ug/mL		

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL 00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731 00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441				(Purchased Reagent) Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712				(Purchased Reagent) 2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-568023_00010	12/31/16		Restek, Lot A0107887			(Purchased Reagent)	Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703			(Purchased Reagent)	1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709			(Purchased Reagent)	3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989			(Purchased Reagent)	Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273			(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MS-HSLA010_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	25 uL	Benzoic acid	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
							Famphur	10 ug/mL
							1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10.1097 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
4-Methylphenol	10 ug/mL							
4-Nitroaniline	10 ug/mL							
4-Nitrophenol	20 ug/mL							
Acenaphthene	10 ug/mL							
Acenaphthylene	10 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis (2-chloroethoxy)methane	10 ug/mL
							Bis (2-chloroethyl) ether	10 ug/mL
							Bis (2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz (a,h) anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Caprolactam	10 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Terphenyl-d14 (Surr)	200 ug/mL
					MS-569729_00025	2 mL	Famphur	200 ug/mL
							1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
4-Methylphenol	200 ug/mL							
4-Nitroaniline	200 ug/mL							
4-Nitrophenol	400 ug/mL							
Acenaphthene	200 ug/mL							
Acenaphthylene	200 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL 00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731 00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712			(Purchased Reagent)	2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887			(Purchased Reagent)	Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703			(Purchased Reagent)	1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709			(Purchased Reagent)	3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989			(Purchased Reagent)	Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273			(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA020_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	50 uL	Benzoic acid	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
							Famphur	20 ug/mL
							1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20.2195 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis (2-chloroethoxy)methane	20 ug/mL
							Bis (2-chloroethyl) ether	20 ug/mL
							Bis (2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz (a,h) anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Caprolactam	20 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
					MS-567685_00001	0.4 mL	Benzoic acid	400 ug/mL
							2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-569729_00025	2 mL	Famphur	200 ug/mL
							1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
					4-Chloroaniline	200 ug/mL		
4-Chlorophenyl phenyl ether	200 ug/mL							
4-Methylphenol	200 ug/mL							
4-Nitroaniline	200 ug/mL							
4-Nitrophenol	400 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
							Acenaphthene	200 ug/mL	
							Acenaphthylene	200 ug/mL	
							Acetophenone	200 ug/mL	
							Aniline	200 ug/mL	
							Anthracene	200 ug/mL	
							Azobenzene	200 ug/mL	
							Benzo[a]anthracene	200 ug/mL	
							Benzo[a]pyrene	200 ug/mL	
							Benzo[b]fluoranthene	200 ug/mL	
							Benzo[g,h,i]perylene	200 ug/mL	
							Benzo[k]fluoranthene	200 ug/mL	
							Benzyl alcohol	200 ug/mL	
							Bis (2-chloroethoxy)methane	200 ug/mL	
							Bis (2-chloroethyl) ether	200 ug/mL	
							Bis (2-ethylhexyl) phthalate	200 ug/mL	
							Butyl benzyl phthalate	200 ug/mL	
							Carbazole	200 ug/mL	
							Chrysene	200 ug/mL	
							Di-n-butyl phthalate	200 ug/mL	
							Di-n-octyl phthalate	200 ug/mL	
							Dibenz (a,h) anthracene	200 ug/mL	
							Dibenzofuran	200 ug/mL	
							Diethyl phthalate	200 ug/mL	
							Dimethyl phthalate	200 ug/mL	
							Fluoranthene	200 ug/mL	
							Fluorene	200 ug/mL	
							Hexachlorobenzene	200 ug/mL	
							Hexachlorobutadiene	200 ug/mL	
							Hexachlorocyclopentadiene	200 ug/mL	
							Hexachloroethane	200 ug/mL	
							Indeno[1,2,3-cd]pyrene	200 ug/mL	
							Isophorone	200 ug/mL	
							N-Nitrosodi-n-propylamine	200 ug/mL	
							N-Nitrosodimethylamine	200 ug/mL	
							N-Nitrosodiphenylamine	400 ug/mL	
							Naphthalene	200 ug/mL	
							Nitrobenzene	200 ug/mL	
							Pentachlorophenol	400 ug/mL	
							Phenanthrene	200 ug/mL	
							Phenol	200 ug/mL	
							Pyrene	200 ug/mL	
							Pyridine	200 ug/mL	
						MS-569730 HSL 00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
						MS-569731 00013	1 mL	Benzoic acid	400 ug/mL
						MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441			(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
								2-Fluorobiphenyl	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887			(Purchased Reagent)	Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703			(Purchased Reagent)	1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709			(Purchased Reagent)	3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989			(Purchased Reagent)	Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273			(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA050_00021	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	125 uL	Benzoic acid	100 ug/mL
							2,4,6-Tribromophenol (Surr)	50 ug/mL
							2-Fluorobiphenyl	50 ug/mL
							2-Fluorophenol (Surr)	50 ug/mL
							Nitrobenzene-d5 (Surr)	50 ug/mL
							Phenol-d5 (Surr)	50 ug/mL
							Terphenyl-d14 (Surr)	50 ug/mL
							Famphur	50 ug/mL
							1,1'-Biphenyl	50 ug/mL
							1,2,4,5-Tetrachlorobenzene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Diphenylhydrazine	50.5487 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dinitrobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	50 ug/mL
							1-Methylnaphthalene	50 ug/mL
							2,2'-oxybis[1-chloropropane]	50 ug/mL
							2,3,4,6-Tetrachlorophenol	50 ug/mL
							2,4,5-Trichlorophenol	50 ug/mL
							2,4,6-Trichlorophenol	50 ug/mL
							2,4-Dichlorophenol	50 ug/mL
							2,4-Dimethylphenol	50 ug/mL
							2,4-Dinitrophenol	100 ug/mL
							2,4-Dinitrotoluene	50 ug/mL
							2,6-Dichlorophenol	50 ug/mL
							2,6-Dinitrotoluene	50 ug/mL
							2-Chloronaphthalene	50 ug/mL
							2-Chlorophenol	50 ug/mL
							2-Methylnaphthalene	50 ug/mL
							2-Methylphenol	50 ug/mL
							2-Nitroaniline	50 ug/mL
							2-Nitrophenol	50 ug/mL
							3 & 4 Methylphenol	50 ug/mL
							3-Methylphenol	50 ug/mL
							3-Nitroaniline	50 ug/mL
							4,6-Dinitro-2-methylphenol	100 ug/mL
							4-Bromophenyl phenyl ether	50 ug/mL
							4-Chloro-3-methylphenol	50 ug/mL
							4-Chloroaniline	50 ug/mL
							4-Chlorophenyl phenyl ether	50 ug/mL
							4-Methylphenol	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	50 ug/mL
							4-Nitrophenol	100 ug/mL
							Acenaphthene	50 ug/mL
							Acenaphthylene	50 ug/mL
							Acetophenone	50 ug/mL
							Aniline	50 ug/mL
							Anthracene	50 ug/mL
							Azobenzene	50 ug/mL
							Benzo[a]anthracene	50 ug/mL
							Benzo[a]pyrene	50 ug/mL
							Benzo[b]fluoranthene	50 ug/mL
							Benzo[g,h,i]perylene	50 ug/mL
							Benzo[k]fluoranthene	50 ug/mL
							Benzyl alcohol	50 ug/mL
							Bis (2-chloroethoxy)methane	50 ug/mL
							Bis (2-chloroethyl) ether	50 ug/mL
							Bis (2-ethylhexyl) phthalate	50 ug/mL
							Butyl benzyl phthalate	50 ug/mL
							Carbazole	50 ug/mL
							Chrysene	50 ug/mL
							Di-n-butyl phthalate	50 ug/mL
							Di-n-octyl phthalate	50 ug/mL
							Dibenz (a,h) anthracene	50 ug/mL
							Dibenzofuran	50 ug/mL
							Diethyl phthalate	50 ug/mL
							Dimethyl phthalate	50 ug/mL
							Fluoranthene	50 ug/mL
							Fluorene	50 ug/mL
							Hexachlorobenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexachlorocyclopentadiene	50 ug/mL
							Hexachloroethane	50 ug/mL
							Indeno[1,2,3-cd]pyrene	50 ug/mL
							Isophorone	50 ug/mL
							N-Nitrosodi-n-propylamine	50 ug/mL
							N-Nitrosodimethylamine	50 ug/mL
							N-Nitrosodiphenylamine	100 ug/mL
							Naphthalene	50 ug/mL
							Nitrobenzene	50 ug/mL
							Pentachlorophenol	100 ug/mL
							Phenanthrene	50 ug/mL
							Phenol	50 ug/mL
							Pyrene	50 ug/mL
							Pyridine	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Caprolactam	50 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
Phenanthrene	200 ug/mL							
Phenol	200 ug/mL							
Pyrene	200 ug/mL							
Pyridine	200 ug/mL							
MS-569730 HSL 00001		1 mL	3,3'-Dichlorobenzidine	200 ug/mL				
MS-569731 00013		1 mL	Benzoic acid	400 ug/mL				
MS-569732 HSL 00001		1 mL	Caprolactam	200 ug/mL				
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)	Benzoic acid	2000 ug/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
Terphenyl-d14 (Surr)	5000 ug/mL							
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA080_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	200 uL	Benzoic acid	160 ug/mL
							2,4,6-Tribromophenol (Surr)	80 ug/mL
							2-Fluorobiphenyl	80 ug/mL
							2-Fluorophenol (Surr)	80 ug/mL
							Nitrobenzene-d5 (Surr)	80 ug/mL
							Phenol-d5 (Surr)	80 ug/mL
							Terphenyl-d14 (Surr)	80 ug/mL
							Famphur	80 ug/mL
							1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
4-Chloroaniline	80 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis (2-chloroethoxy)methane	80 ug/mL
							Bis (2-chloroethyl) ether	80 ug/mL
							Bis (2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz (a,h) anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
							3,3'-Dichlorobenzidine	80 ug/mL
							Caprolactam	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL					
							Acenaphthene-d10	40 ug/mL					
							Chrysene-d12	40 ug/mL					
							Naphthalene-d8	40 ug/mL					
							Perylene-d12	40 ug/mL					
							Phenanthrene-d10	40 ug/mL					
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL					
							MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL			
									2-Fluorobiphenyl	200 ug/mL			
					2-Fluorophenol (Surr)	200 ug/mL							
					Nitrobenzene-d5 (Surr)	200 ug/mL							
					Phenol-d5 (Surr)	200 ug/mL							
											Terphenyl-d14 (Surr)	200 ug/mL	
										MS-568023_00010	1 mL	Famphur	200 ug/mL
										MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
												1,2,4,5-Tetrachlorobenzene	200 ug/mL
												1,2,4-Trichlorobenzene	200 ug/mL
												1,2-Dichlorobenzene	200 ug/mL
												1,2-Diphenylhydrazine	202.195 ug/mL
												1,3-Dichlorobenzene	200 ug/mL
												1,3-Dinitrobenzene	200 ug/mL
												1,4-Dichlorobenzene	200 ug/mL
												1,4-Dioxane	200 ug/mL
												1-Methylnaphthalene	200 ug/mL
												2,2'-oxybis[1-chloropropane]	200 ug/mL
												2,3,4,6-Tetrachlorophenol	200 ug/mL
												2,4,5-Trichlorophenol	200 ug/mL
												2,4,6-Trichlorophenol	200 ug/mL
												2,4-Dichlorophenol	200 ug/mL
												2,4-Dimethylphenol	200 ug/mL
												2,4-Dinitrophenol	400 ug/mL
												2,4-Dinitrotoluene	200 ug/mL
												2,6-Dichlorophenol	200 ug/mL
												2,6-Dinitrotoluene	200 ug/mL
												2-Chloronaphthalene	200 ug/mL
												2-Chlorophenol	200 ug/mL
												2-Methylnaphthalene	200 ug/mL
										2-Methylphenol	200 ug/mL		
										2-Nitroaniline	200 ug/mL		
					2-Nitrophenol	200 ug/mL							
					3 & 4 Methylphenol	200 ug/mL							
					3-Methylphenol	200 ug/mL							
					3-Nitroaniline	200 ug/mL							
					4,6-Dinitro-2-methylphenol	400 ug/mL							
					4-Bromophenyl phenyl ether	200 ug/mL							
					4-Chloro-3-methylphenol	200 ug/mL							
					4-Chloroaniline	200 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL 00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567674_00048	02/29/16		Restek, Lot A093441		MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		Benzoic acid	2000 ug/mL
					(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709			(Purchased Reagent)	3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989			(Purchased Reagent)	Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA120_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	300 uL	Benzoic acid	240 ug/mL
							2,4,6-Tribromophenol (Surr)	120 ug/mL
							2-Fluorobiphenyl	120 ug/mL
							2-Fluorophenol (Surr)	120 ug/mL
							Nitrobenzene-d5 (Surr)	120 ug/mL
							Phenol-d5 (Surr)	120 ug/mL
							Terphenyl-d14 (Surr)	120 ug/mL
							Famphur	120 ug/mL
							1,1'-Biphenyl	120 ug/mL
							1,2,4,5-Tetrachlorobenzene	120 ug/mL
							1,2,4-Trichlorobenzene	120 ug/mL
							1,2-Dichlorobenzene	120 ug/mL
							1,2-Diphenylhydrazine	121.317 ug/mL
							1,3-Dichlorobenzene	120 ug/mL
							1,3-Dinitrobenzene	120 ug/mL
							1,4-Dichlorobenzene	120 ug/mL
							1,4-Dioxane	120 ug/mL
							1-Methylnaphthalene	120 ug/mL
							2,2'-oxybis[1-chloropropane]	120 ug/mL
							2,3,4,6-Tetrachlorophenol	120 ug/mL
							2,4,5-Trichlorophenol	120 ug/mL
							2,4,6-Trichlorophenol	120 ug/mL
							2,4-Dichlorophenol	120 ug/mL
							2,4-Dimethylphenol	120 ug/mL
							2,4-Dinitrophenol	240 ug/mL
							2,4-Dinitrotoluene	120 ug/mL
							2,6-Dichlorophenol	120 ug/mL
							2,6-Dinitrotoluene	120 ug/mL
							2-Chloronaphthalene	120 ug/mL
							2-Chlorophenol	120 ug/mL
							2-Methylnaphthalene	120 ug/mL
							2-Methylphenol	120 ug/mL
							2-Nitroaniline	120 ug/mL
							2-Nitrophenol	120 ug/mL
							3 & 4 Methylphenol	120 ug/mL
							3-Methylphenol	120 ug/mL
							3-Nitroaniline	120 ug/mL
							4,6-Dinitro-2-methylphenol	240 ug/mL
							4-Bromophenyl phenyl ether	120 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	120 ug/mL
							4-Chloroaniline	120 ug/mL
							4-Chlorophenyl phenyl ether	120 ug/mL
							4-Methylphenol	120 ug/mL
							4-Nitroaniline	120 ug/mL
							4-Nitrophenol	240 ug/mL
							Acenaphthene	120 ug/mL
							Acenaphthylene	120 ug/mL
							Acetophenone	120 ug/mL
							Aniline	120 ug/mL
							Anthracene	120 ug/mL
							Azobenzene	120 ug/mL
							Benzo[a]anthracene	120 ug/mL
							Benzo[a]pyrene	120 ug/mL
							Benzo[b]fluoranthene	120 ug/mL
							Benzo[g,h,i]perylene	120 ug/mL
							Benzo[k]fluoranthene	120 ug/mL
							Benzyl alcohol	120 ug/mL
							Bis (2-chloroethoxy)methane	120 ug/mL
							Bis (2-chloroethyl) ether	120 ug/mL
							Bis (2-ethylhexyl) phthalate	120 ug/mL
							Butyl benzyl phthalate	120 ug/mL
							Carbazole	120 ug/mL
							Chrysene	120 ug/mL
							Di-n-butyl phthalate	120 ug/mL
							Di-n-octyl phthalate	120 ug/mL
							Dibenz (a,h) anthracene	120 ug/mL
							Dibenzofuran	120 ug/mL
							Diethyl phthalate	120 ug/mL
							Dimethyl phthalate	120 ug/mL
							Fluoranthene	120 ug/mL
							Fluorene	120 ug/mL
							Hexachlorobenzene	120 ug/mL
							Hexachlorobutadiene	120 ug/mL
							Hexachlorocyclopentadiene	120 ug/mL
							Hexachloroethane	120 ug/mL
							Indeno[1,2,3-cd]pyrene	120 ug/mL
							Isophorone	120 ug/mL
							N-Nitrosodi-n-propylamine	120 ug/mL
							N-Nitrosodimethylamine	120 ug/mL
							N-Nitrosodiphenylamine	240 ug/mL
							Naphthalene	120 ug/mL
							Nitrobenzene	120 ug/mL
							Pentachlorophenol	240 ug/mL
							Phenanthrene	120 ug/mL
							Phenol	120 ug/mL
							Pyrene	120 ug/mL
							Pyridine	120 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
					MS-IS_00008	50 uL	3,3'-Dichlorobenzidine	120 ug/mL		
							Caprolactam	120 ug/mL		
							1,4-Dichlorobenzene-d4	40 ug/mL		
							Acenaphthene-d10	40 ug/mL		
							Chrysene-d12	40 ug/mL		
							Naphthalene-d8	40 ug/mL		
							Perylene-d12	40 ug/mL		
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL		
							MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
									2-Fluorobiphenyl	200 ug/mL
									2-Fluorophenol (Surr)	200 ug/mL
									Nitrobenzene-d5 (Surr)	200 ug/mL
									Phenol-d5 (Surr)	200 ug/mL
							MS-568023_00010	1 mL	Terphenyl-d14 (Surr)	200 ug/mL
									Famphur	200 ug/mL
							MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
									1,2,4,5-Tetrachlorobenzene	200 ug/mL
									1,2,4-Trichlorobenzene	200 ug/mL
									1,2-Dichlorobenzene	200 ug/mL
									1,2-Diphenylhydrazine	202.195 ug/mL
									1,3-Dichlorobenzene	200 ug/mL
									1,3-Dinitrobenzene	200 ug/mL
									1,4-Dichlorobenzene	200 ug/mL
									1,4-Dioxane	200 ug/mL
									1-Methylnaphthalene	200 ug/mL
									2,2'-oxybis[1-chloropropane]	200 ug/mL
									2,3,4,6-Tetrachlorophenol	200 ug/mL
									2,4,5-Trichlorophenol	200 ug/mL
									2,4,6-Trichlorophenol	200 ug/mL
									2,4-Dichlorophenol	200 ug/mL
									2,4-Dimethylphenol	200 ug/mL
									2,4-Dinitrophenol	400 ug/mL
									2,4-Dinitrotoluene	200 ug/mL
									2,6-Dichlorophenol	200 ug/mL
									2,6-Dinitrotoluene	200 ug/mL
									2-Chloronaphthalene	200 ug/mL
									2-Chlorophenol	200 ug/mL
									2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL		
							2-Nitroaniline	200 ug/mL		
							2-Nitrophenol	200 ug/mL		
3 & 4 Methylphenol	200 ug/mL									
3-Methylphenol	200 ug/mL									
3-Nitroaniline	200 ug/mL									
4,6-Dinitro-2-methylphenol	400 ug/mL									
4-Bromophenyl phenyl ether	200 ug/mL									

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-569730 HSL 00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731 00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709			(Purchased Reagent)	3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989			(Purchased Reagent)	Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA160_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	400 uL	Benzoic acid	320 ug/mL
							2,4,6-Tribromophenol (Surr)	160 ug/mL
							2-Fluorobiphenyl	160 ug/mL
							2-Fluorophenol (Surr)	160 ug/mL
							Nitrobenzene-d5 (Surr)	160 ug/mL
							Phenol-d5 (Surr)	160 ug/mL
							Terphenyl-d14 (Surr)	160 ug/mL
							Famphur	160 ug/mL
							1,1'-Biphenyl	160 ug/mL
							1,2,4,5-Tetrachlorobenzene	160 ug/mL
							1,2,4-Trichlorobenzene	160 ug/mL
							1,2-Dichlorobenzene	160 ug/mL
							1,2-Diphenylhydrazine	161.756 ug/mL
							1,3-Dichlorobenzene	160 ug/mL
							1,3-Dinitrobenzene	160 ug/mL
							1,4-Dichlorobenzene	160 ug/mL
							1,4-Dioxane	160 ug/mL
							1-Methylnaphthalene	160 ug/mL
							2,2'-oxybis[1-chloropropane]	160 ug/mL
							2,3,4,6-Tetrachlorophenol	160 ug/mL
							2,4,5-Trichlorophenol	160 ug/mL
							2,4,6-Trichlorophenol	160 ug/mL
							2,4-Dichlorophenol	160 ug/mL
							2,4-Dimethylphenol	160 ug/mL
							2,4-Dinitrophenol	320 ug/mL
							2,4-Dinitrotoluene	160 ug/mL
							2,6-Dichlorophenol	160 ug/mL
							2,6-Dinitrotoluene	160 ug/mL
							2-Chloronaphthalene	160 ug/mL
							2-Chlorophenol	160 ug/mL
							2-Methylnaphthalene	160 ug/mL
							2-Methylphenol	160 ug/mL
							2-Nitroaniline	160 ug/mL
							2-Nitrophenol	160 ug/mL
							3 & 4 Methylphenol	160 ug/mL
							3-Methylphenol	160 ug/mL
							3-Nitroaniline	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	320 ug/mL
							4-Bromophenyl phenyl ether	160 ug/mL
							4-Chloro-3-methylphenol	160 ug/mL
							4-Chloroaniline	160 ug/mL
							4-Chlorophenyl phenyl ether	160 ug/mL
							4-Methylphenol	160 ug/mL
							4-Nitroaniline	160 ug/mL
							4-Nitrophenol	320 ug/mL
							Acenaphthene	160 ug/mL
							Acenaphthylene	160 ug/mL
							Acetophenone	160 ug/mL
							Aniline	160 ug/mL
							Anthracene	160 ug/mL
							Azobenzene	160 ug/mL
							Benzo[a]anthracene	160 ug/mL
							Benzo[a]pyrene	160 ug/mL
							Benzo[b]fluoranthene	160 ug/mL
							Benzo[g,h,i]perylene	160 ug/mL
							Benzo[k]fluoranthene	160 ug/mL
							Benzyl alcohol	160 ug/mL
							Bis(2-chloroethoxy)methane	160 ug/mL
							Bis(2-chloroethyl) ether	160 ug/mL
							Bis(2-ethylhexyl) phthalate	160 ug/mL
							Butyl benzyl phthalate	160 ug/mL
							Carbazole	160 ug/mL
							Chrysene	160 ug/mL
							Di-n-butyl phthalate	160 ug/mL
							Di-n-octyl phthalate	160 ug/mL
							Dibenz(a,h)anthracene	160 ug/mL
							Dibenzofuran	160 ug/mL
							Diethyl phthalate	160 ug/mL
							Dimethyl phthalate	160 ug/mL
							Fluoranthene	160 ug/mL
							Fluorene	160 ug/mL
							Hexachlorobenzene	160 ug/mL
							Hexachlorobutadiene	160 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	160 ug/mL
							Indeno[1,2,3-cd]pyrene	160 ug/mL
							Isophorone	160 ug/mL
							N-Nitrosodi-n-propylamine	160 ug/mL
							N-Nitrosodimethylamine	160 ug/mL
							N-Nitrosodiphenylamine	320 ug/mL
							Naphthalene	160 ug/mL
							Nitrobenzene	160 ug/mL
							Pentachlorophenol	320 ug/mL
							Phenanthrene	160 ug/mL
							Phenol	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	160 ug/mL
							Pyridine	160 ug/mL
							3,3'-Dichlorobenzidine	160 ug/mL
							Caprolactam	160 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl) ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL 00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731 00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL 00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731 00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
.MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA200_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	500 uL	Benzoic acid	400 ug/mL
							2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
							Famphur	200 ug/mL
							1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
2-Nitrophenol	200 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							Pentachlorophenol	400 ug/mL		
							Phenanthrene	200 ug/mL		
							Phenol	200 ug/mL		
							Pyrene	200 ug/mL		
							Pyridine	200 ug/mL		
							3,3'-Dichlorobenzidine	200 ug/mL		
							Caprolactam	200 ug/mL		
							MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
									Acenaphthene-d10	40 ug/mL
									Chrysene-d12	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL		
							MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
									2-Fluorobiphenyl	200 ug/mL
									2-Fluorophenol (Surr)	200 ug/mL
									Nitrobenzene-d5 (Surr)	200 ug/mL
									Phenol-d5 (Surr)	200 ug/mL
							MS-568023_00010	1 mL	Terphenyl-d14 (Surr)	200 ug/mL
									Famphur	200 ug/mL
							MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
									1,2,4,5-Tetrachlorobenzene	200 ug/mL
									1,2,4-Trichlorobenzene	200 ug/mL
									1,2-Dichlorobenzene	200 ug/mL
									1,2-Diphenylhydrazine	202.195 ug/mL
									1,3-Dichlorobenzene	200 ug/mL
									1,3-Dinitrobenzene	200 ug/mL
									1,4-Dichlorobenzene	200 ug/mL
									1,4-Dioxane	200 ug/mL
									1-Methylnaphthalene	200 ug/mL
									2,2'-oxybis[1-chloropropane]	200 ug/mL
									2,3,4,6-Tetrachlorophenol	200 ug/mL
									2,4,5-Trichlorophenol	200 ug/mL
									2,4,6-Trichlorophenol	200 ug/mL
									2,4-Dichlorophenol	200 ug/mL
									2,4-Dimethylphenol	200 ug/mL
									2,4-Dinitrophenol	400 ug/mL
									2,4-Dinitrotoluene	200 ug/mL
									2,6-Dichlorophenol	200 ug/mL
									2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL		
							2-Chlorophenol	200 ug/mL		
							2-Methylnaphthalene	200 ug/mL		
							2-Methylphenol	200 ug/mL		
							2-Nitroaniline	200 ug/mL		
2-Nitrophenol	200 ug/mL									

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis (2-chloroethoxy)methane	200 ug/mL
							Bis (2-chloroethyl) ether	200 ug/mL
							Bis (2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz (a,h) anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
Naphthalene	1000 ug/mL							
Nitrobenzene	1000 ug/mL							
Pentachlorophenol	2000 ug/mL							
Phenanthrene	1000 ug/mL							
Phenol	1000 ug/mL							
Pyrene	1000 ug/mL							
Pyridine	1000 ug/mL							
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)	3,3'-Dichlorobenzidine	2000 ug/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-569731_00013	07/31/16		Restek, Lot A0107943			(Purchased Reagent)	Benzoic acid	2000 ug/mL
..MS-569732_HSL_00001	08/31/16		Restek, Lot A0108989			(Purchased Reagent)	Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273			(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLACCV080_00067	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273			(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLACCV080_00067	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	200 uL	2,4,6-Tribromophenol (Surr)	80 ug/mL
							2-Fluorobiphenyl	80 ug/mL
							2-Fluorophenol (Surr)	80 ug/mL
							Nitrobenzene-d5 (Surr)	80 ug/mL
							Phenol-d5 (Surr)	80 ug/mL
							Terphenyl-d14 (Surr)	80 ug/mL
							Caprolactam	80 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-569732 HSL 00001	1 mL	Caprolactam	200 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-569732 HSL 00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
MS-HSLB1B3SSV_00028	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
..MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLB2SSV_00025	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	Phenanthrene-d10	40 ug/mL
							1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18	Restek, Lot A093676	(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL			
				Acenaphthene-d10	2000 ug/mL			
				Chrysene-d12	2000 ug/mL			
				Naphthalene-d8	2000 ug/mL			
				Perylene-d12	2000 ug/mL			
				Phenanthrene-d10	2000 ug/mL			
..MS-567684_00017	12/31/17	Restek, Lot A092546	(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL			
				Acenaphthene-d10	2000 ug/mL			
				Chrysene-d12	2000 ug/mL			
				Naphthalene-d8	2000 ug/mL			
				Perylene-d12	2000 ug/mL			
				Phenanthrene-d10	2000 ug/mL			
MS-HSLB2SSV_00025	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLB2_STK_00005	250 uL	Caprolactam	100 ug/mL
.MS-HSLB2_STK_00005	04/30/16	04/30/15	Methylene Chloride, Lot 87975	10 mL	MS-569732SEC_00001	1 mL	Caprolactam	200 ug/mL
..MS-569732SEC_00001	06/30/16	Restek, Lot A0108042		(Purchased Reagent)		Caprolactam	2000 ug/mL	
MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
							Phenanthrene-d10	400 ug/mL
.MS-567684_00016	02/28/18	Restek, Lot A093676	(Purchased Reagent)	1,4-Dichlorobenzene-d4	2000 ug/mL			
				Acenaphthene-d10	2000 ug/mL			
				Chrysene-d12	2000 ug/mL			
				Naphthalene-d8	2000 ug/mL			

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL



Reagent ID: 8270Surrogate_00086

Description: 8270 Surrogate 100ug/ml
 No. of Bottles: 4
 Storage Location: North Prep
 Reagent Volume: 1000.000 mL
 Creation Date: 10/16/2015
 Open Date:
 Container(s): 3554524, 3554525, 3554526, 3554527
 Comment: Take 20mL of 8270SurHL and dilute to 1000mL in acetone.
 One year expiration date.
 Split into 4x250mL bottles. Requires solvent exchange to MeCl2 prior to submission for verification.

Expiration Date: 10/16/2016
 Laboratory: TestAmerica Denver
 Prepared By: Stevenson, Michael D
 Solvent: ACETONE
 Solvent Lot: Acetone_000137

standards fridge

Reagent Analyte Information

mecl2 cycl -00243

Pip 100µl/ml

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
2,4,6 - Tribromophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL



Reagent ID: 8270Surrogate_00086

Description:	8270 Surrogate 100ug/ml	Expiration Date:	10/16/2016
No. of Bottles:	4	Laboratory:	TestAmerica Denver
Storage Location:	North Prep	Prepared By:	Stevenson, Michael D
Reagent Volume:	1000.000 mL	Solvent:	ACETONE
Creation Date:	10/16/2015	Solvent Lot:	Acetone_000137
Open Date:			
Container(s):	3554524, 3554525, 3554526, 3554527		
Comment:	Take 20mL of 8270SurHL and dilute to 1000mL in acetone. One year expiration date. Split into 4x250mL bottles. Requires solvent exchange to MeCl2 prior to submission for verification.		

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
2-Fluorobiphenyl	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL



Source Reagents

Reagent	Description	Type	Expiration	Vendor	Vendor Lot #	Vendor Cat Lot #	Volume Used	Volume Units
8270SurStkHL_0011 7	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_0011 8	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_0013 1	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_0013 3	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL

Preliminary Report

TestAmerica Denver
Recovery Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151022-40647.b\G6_20682.D
 Lims ID: 8270Surrogate_00086 Lab Sample ID: Client 280-300564/34-A
 Client ID:
 Sample Type: Client
 Inject. Date: 22-Oct-2015 14:57:30 ALS Bottle#: 7 Worklist Smp#: 34
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 8270Surrogate_00086
 Operator ID: KIEKELD Instrument ID: SMS_G6
 Method: \\ChromNA\Denver\ChromData\SMS_G6\20151022-40647.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 23-Oct-2015 05:57:29 Calib Date: 15-Oct-2015 13:43:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151015-40387.b\G6_20552.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK028

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	90.7	90.71
\$ 8 Phenol-d5	100.0	88.8	88.85
\$ 9 Nitrobenzene-d5	100.0	87.1	87.10
\$ 11 2-Fluorobiphenyl	100.0	89.4	89.43
\$ 12 2,4,6-Tribromophenol	100.0	90.5	90.49
\$ 13 Terphenyl-d14	100.0	81.8	81.82

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



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. : 568727 **Lot No.:** A0103685
Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine
8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000 µg/ml, Methylene Chloride, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2017 **Storage:** 10°C or colder
Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Dibenz(a,j)acridine CAS # 224-42-0 Purity 99% (Lot ER081407-01)	2,014.0 µg/mL	+/- 11.9625 µg/mL Gravimetric +/- 89.5165 µg/mL Unstressed +/- 98.3442 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

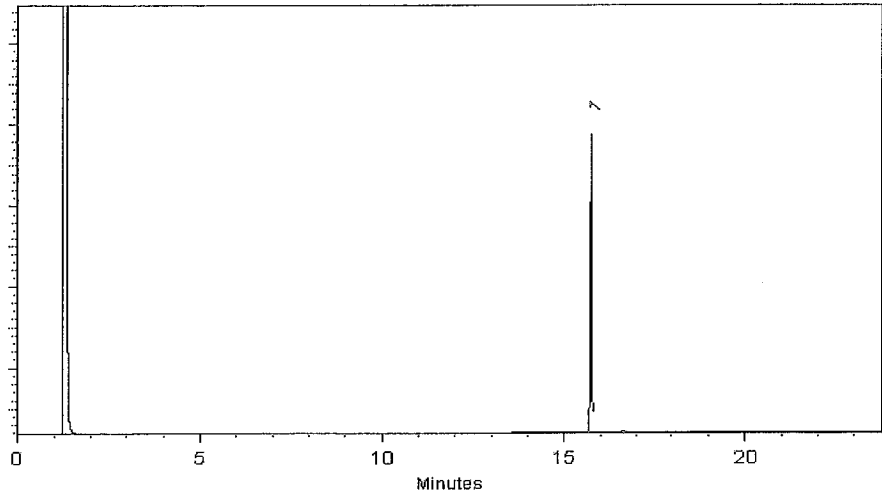
250°C

Det. Temp:

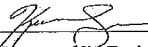
330°C

Det. Type:

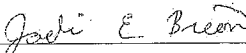
FID



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


Kendra Swope - Mix Technician

Date Mixed: 30-May-2014 Balance: 1128342313


Jodi E. Breon - QA Analyst

Date Passed: 04-Jun-2014

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 567685 Lot No.: A0103615
 Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : May 31, 2019 Storage: 10°C or colder
 Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Fluorophenol	5,003.5 µg/mL (Lot STBC5591V)	+/-	29.0892	µg/mL	Gravimetric
	CAS # 367-12-4		+/-	124.6713	µg/mL	Unstressed
	Purity 99%		+/-	156.7818	µg/mL	Stressed
2	Phenol-d5	5,002.9 µg/mL (Lot M387P4)	+/-	29.0860	µg/mL	Gravimetric
	CAS # 4165-62-2		+/-	124.6575	µg/mL	Unstressed
	Purity 99%		+/-	156.7644	µg/mL	Stressed
3	Nitrobenzene-d5	5,001.4 µg/mL (Lot PR-20474)	+/-	29.0773	µg/mL	Gravimetric
	CAS # 4165-60-0		+/-	124.6201	µg/mL	Unstressed
	Purity 99%		+/-	156.7174	µg/mL	Stressed
4	2-Fluorobiphenyl	5,004.4 µg/mL (Lot E11Y047)	+/-	29.0947	µg/mL	Gravimetric
	CAS # 321-60-8		+/-	124.6949	µg/mL	Unstressed
	Purity 99%		+/-	156.8114	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,003.9 µg/mL (Lot 29699MJV)	+/-	29.0914	µg/mL	Gravimetric
	CAS # 118-79-6		+/-	124.6805	µg/mL	Unstressed
	Purity 99%		+/-	156.7934	µg/mL	Stressed
6	p-Terphenyl-d14	5,007.1 µg/mL (Lot PR-20577)	+/-	29.1100	µg/mL	Gravimetric
	CAS # 1718-51-0		+/-	124.7604	µg/mL	Unstressed
	Purity 99%		+/-	156.8938	µg/mL	Stressed

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

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

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBC5591V)	5,003.5 µg/mL	+/- 29.0892 µg/mL Gravimetric
			+/- 124.6713 µg/mL Unstressed
			+/- 156.7818 µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot M387P4)	5,002.9 µg/mL	+/- 29.0860 µg/mL Gravimetric
			+/- 124.6575 µg/mL Unstressed
			+/- 156.7644 µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-20474)	5,001.4 µg/mL	+/- 29.0773 µg/mL Gravimetric
			+/- 124.6201 µg/mL Unstressed
			+/- 156.7174 µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot E11Y047)	5,004.4 µg/mL	+/- 29.0947 µg/mL Gravimetric
			+/- 124.6949 µg/mL Unstressed
			+/- 156.8114 µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot 29699MJV)	5,003.9 µg/mL	+/- 29.0914 µg/mL Gravimetric
			+/- 124.6805 µg/mL Unstressed
			+/- 156.7934 µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-20577)	5,007.1 µg/mL	+/- 29.1100 µg/mL Gravimetric
			+/- 124.7604 µg/mL Unstressed
			+/- 156.8938 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

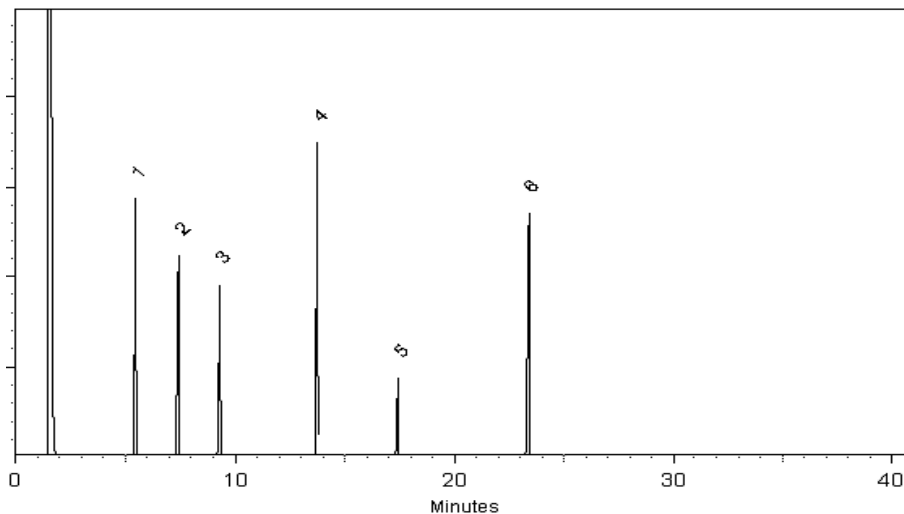
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Cheryl Graham
Cheryl Graham - Mix Technician

Date Mixed: 27-May-2014 **Balance:** 1128342313

Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 23-Jun-2014

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
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Certificate of Analysis



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

Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

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

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBC5591V)	5,003.5 µg/mL	+/-	29.0892	µg/mL Gravimetric
			+/-	124.6713	µg/mL Unstressed
			+/-	156.7818	µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot M387P4)	5,002.9 µg/mL	+/-	29.0860	µg/mL Gravimetric
			+/-	124.6575	µg/mL Unstressed
			+/-	156.7644	µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-20474)	5,001.4 µg/mL	+/-	29.0773	µg/mL Gravimetric
			+/-	124.6201	µg/mL Unstressed
			+/-	156.7174	µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot E11Y047)	5,004.4 µg/mL	+/-	29.0947	µg/mL Gravimetric
			+/-	124.6949	µg/mL Unstressed
			+/-	156.8114	µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot 29699MJV)	5,003.9 µg/mL	+/-	29.0914	µg/mL Gravimetric
			+/-	124.6805	µg/mL Unstressed
			+/-	156.7934	µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-20577)	5,007.1 µg/mL	+/-	29.1100	µg/mL Gravimetric
			+/-	124.7604	µg/mL Unstressed
			+/-	156.8938	µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

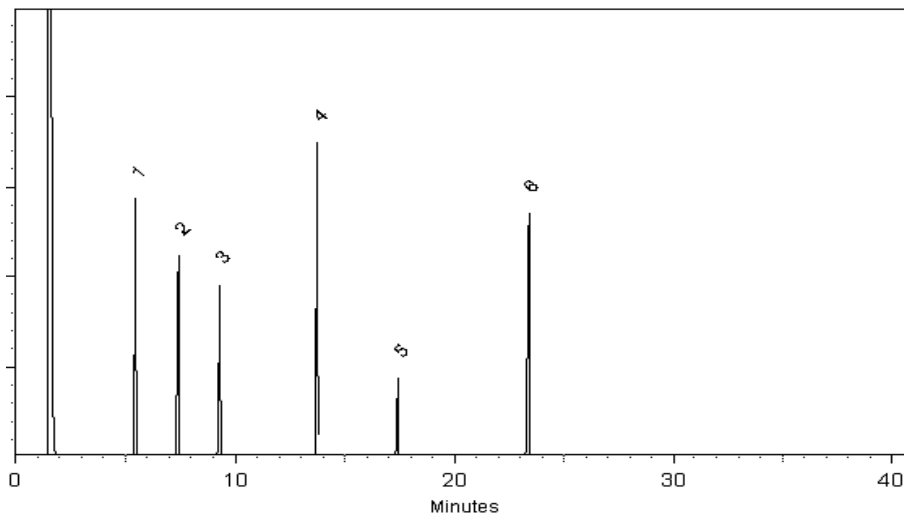
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Cheryl Graham

Cheryl Graham - Mix Technician

Date Mixed: 27-May-2014

Balance: 1128342313

Jennifer L. Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 23-Jun-2014

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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- Purity values are rounded to the nearest whole number.

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



Analytical Reference Materials
8270 List 1 / Std #3 Benzoic Acid

Catalog # 567674.sec

Lot # A093654 & A093441

110 Benner Circle Bellefonte, PA 16823-8812

(814) 353-1300

FOR LABORATORY USE ONLY. READ MSDS PRIOR TO USE.

RAW MATERIAL TEST INFORMATION AVAILABLE UPON REQUEST

MANUFACTURED UNDER RESTEK'S ISO 9001 REGISTERED QUALITY SYSTEM



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

www.restek.com



Certificate of Analysis

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

Catalog No. : 567674.sec **Lot No.:** A093654

Description : 8270 List 1 / Std #3 Benzoic Acid
8270 List 1 / Std #3 Benzoic Acid 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : February 2016 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzoic acid	2,000.0 µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 65-85-0.SEC		+/-	96.5270	µg/mL	Unstressed
	Purity 97%		+/-	96.6098	µg/mL	Stressed
Solvent:	Methylene Chloride					
	CAS # 75-09-2					
	Purity 99%					

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

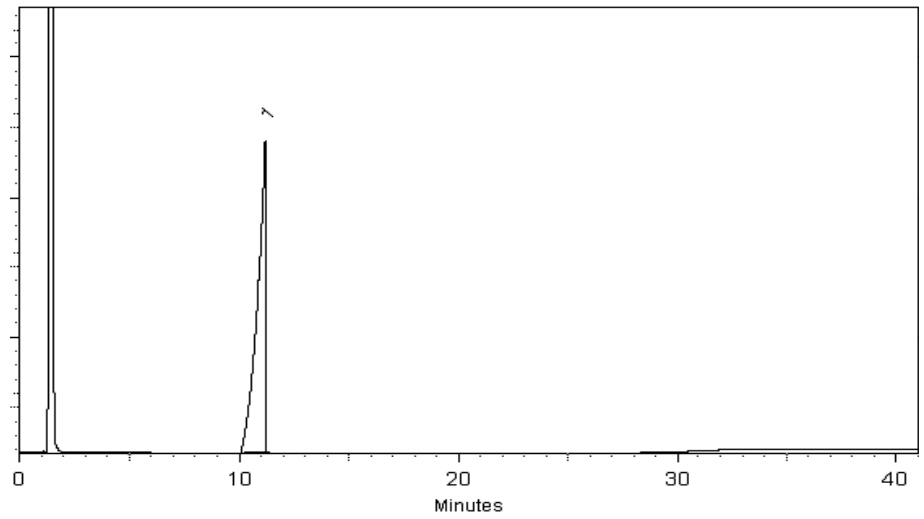
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 22-Feb-2013 Balance: 1128353505

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



Chemical Standard Batch Sheet

Lot #: A093654

Catalog #: 567674.sec	Target: 2000 ug/mL	
Description: 8270 List 1 / Std #3 Benzoic Acid		
Solvent: Methylene Chloride	Solvent Lot: 126244	Final Volume: 1,000 ml

Made by: Mary Ellen Wood	Date: 2/19/2013 3:12:24PM		
Tested by: Jennifer Pollino	Date: 2/21/2013 11:48:51AM		
Pass	By: Jodi Breon	Date: 2/22/2013 12:34:09PM	
Packaged by: Alexandria Pavkovich / Alexandria Pavkov	Date: 2/21/2013 8:30:06AM	No. Units: 161	Pkg Size: 5 mL
Balance Used: BEDEARMBALPC2 XP205	Serial #: 1128353505		

<u>Compound</u>	<u>CAS</u>	<u>Storage Location</u>	<u>Lot #</u>	<u>Purity</u>	<u>Target Conc(ug/mL)</u>	<u>Target</u>	<u>Actual</u>	<u>Calc Conc(ug/mL)</u>
Benzoic acid	65-85-0.SEC	RS063	QD3UO	0.97	2,000.00	2,061.86 mg	2,061.90 mg	2,000.0



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 Bellefonte, PA 16823-8812
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www.restek.com



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. : 567674 **Lot No.:** A093441

Description : 8270 List 1 / Std #3 Benzoic Acid
8270 List 1 / Std #3 Benzoic Acid 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : February 2016 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzoic acid	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 65-85-0		+/-	96.5249	µg/mL	Unstressed
	Purity 99%		+/-	96.6077	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

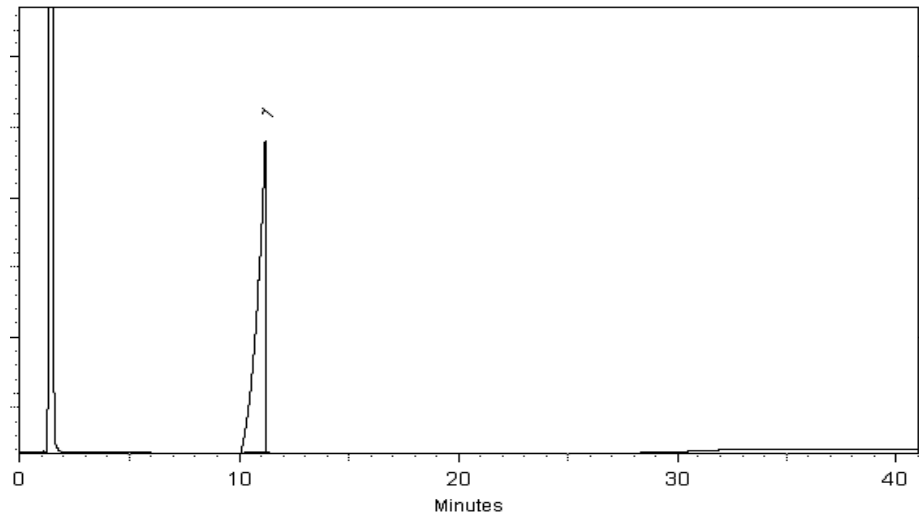
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 22-Feb-2013 Balance: 1128342313

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



Chemical Standard Batch Sheet

Lot #: A093441

Catalog #: 567674	Target: 2000 ug/mL	
Description: 8270 List 1 / Std #3 Benzoic Acid		
Solvent: Methylene Chloride	Solvent Lot: 127438	Final Volume: 4,000 ml

Made by: Matt Hepfer	Date: 2/7/2013 1:17:18PM		
Tested by: Jodi Breon	Date: 2/8/2013 3:42:28PM		
Pass	By: Jodi Breon	Date: 2/22/2013 12:33:55PM	
Packaged by: Kendra Swope / Alexandria Pavkovich	Date: 2/8/2013 10:02:22AM	No. Units: 615	Pkg Size: 5 mL
Balance Used: BEDEARMBALPC1 XP205	Serial #: 1128342313		

<u>Compound</u>	<u>CAS</u>	<u>Storage Location</u>	<u>Lot #</u>	<u>Purity</u>	<u>Target Conc(ug/mL)</u>	<u>Target</u>	<u>Actual</u>	<u>Calc Conc(ug/mL)</u>
Benzoic acid	65-85-0	R0472	MKBG9391V	0.99	2,000.00	8,000.00 mg	8,000.00 mg	2,000.0

QA Report: 8270 List 1/ Std. #3 Benzoic Acid (Cat.#567674)

<u>COMPONENT</u>	Runs of Lot # A093441						Runs of Lot # A093654						P/F	
	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD		%D MEAN
Benzoic acid	5123644	5100875	5144322	5122947	21732	0.42	5288104	5295526	5370045	5317892	45318	0.85	-3.81	PASS



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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. : 567684 - 00016 **Lot No.:** A093676
Description : 8270 Internal Standard
8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : February 2018 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dichlorobenzene-d4	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 3855-82-1		+/-	92.7158	µg/mL	Unstressed
	Purity 99%		+/-	101.3766	µg/mL	Stressed
2	Naphthalene-d8	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1146-65-2		+/-	92.7158	µg/mL	Unstressed
	Purity 99%		+/-	101.3766	µg/mL	Stressed
3	Acenaphthene-d10	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 15067-26-2		+/-	92.7163	µg/mL	Unstressed
	Purity 97%		+/-	101.3771	µg/mL	Stressed
4	Phenanthrene-d10	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1517-22-2		+/-	92.7158	µg/mL	Unstressed
	Purity 99%		+/-	101.3766	µg/mL	Stressed
5	Chrysene-d12	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 1719-03-5		+/-	92.7150	µg/mL	Unstressed
	Purity 98%		+/-	101.3758	µg/mL	Stressed
6	Perylene-d12	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1520-96-3		+/-	92.7158	µg/mL	Unstressed
	Purity 99%		+/-	101.3766	µg/mL	Stressed

Solvent: Methylene Chloride
 CAS # 75-09-2
 Purity 99%



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Catalog No. : 567684 - 00017 **Lot No.:** A092546
Description : 8270 SV Internal Standard Mix
8270 SV Internal Standard Mix 2000µg/mL, Methylene Chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : December 2017 **Storage:** 10°C or colder
Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4	2,000.0 µg/mL	+/-	11.7371	µg/mL Gravimetric
	CAS # 3855-82-1		+/-	92.7295	µg/mL Unstressed
	Purity 99%		+/-	101.3892	µg/mL Stressed
2	Naphthalene-d8	2,000.0 µg/mL	+/-	11.7371	µg/mL Gravimetric
	CAS # 1146-65-2		+/-	92.7295	µg/mL Unstressed
	Purity 99%		+/-	101.3892	µg/mL Stressed
3	Acenaphthene-d10	2,000.1 µg/mL	+/-	11.7379	µg/mL Gravimetric
	CAS # 15067-26-2		+/-	92.7360	µg/mL Unstressed
	Purity 97%		+/-	101.3962	µg/mL Stressed
4	Phenanthrene-d10	2,000.0 µg/mL	+/-	11.7371	µg/mL Gravimetric
	CAS # 1517-22-2		+/-	92.7295	µg/mL Unstressed
	Purity 99%		+/-	101.3892	µg/mL Stressed
5	Chrysene-d12	2,000.2 µg/mL	+/-	11.7382	µg/mL Gravimetric
	CAS # 1719-03-5		+/-	92.7378	µg/mL Unstressed
	Purity 98%		+/-	101.3983	µg/mL Stressed
6	Perylene-d12	2,000.0 µg/mL	+/-	11.7371	µg/mL Gravimetric
	CAS # 1520-96-3		+/-	92.7295	µg/mL Unstressed
	Purity 99%		+/-	101.3892	µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%



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MS- 3043056
ID: MS-567684_00018
Exp: 11/30/19 Prpt. DCK
RES 8270 Internal Std Mix

Catalog No. : 567684 **Lot No.:** A0107273

Description : 8270 Internal Standard
8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

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

Expiration Date : November 30, 2019 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dichlorobenzene-d4	2,017.6 µg/mL	+/-	11.7305	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/-	89.6430	µg/mL	Unstressed
	Purity 99%		+/-	98.4895	µg/mL	Stressed
2	Naphthalene-d8	2,003.8 µg/mL	+/-	11.6503	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot PR-20449)		+/-	89.0299	µg/mL	Unstressed
	Purity 99%		+/-	97.8158	µg/mL	Stressed
3	Acenaphthene-d10	2,016.8 µg/mL	+/-	11.7260	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-21070)		+/-	89.6085	µg/mL	Unstressed
	Purity 97%		+/-	98.4516	µg/mL	Stressed
4	Phenanthrene-d10	2,013.6 µg/mL	+/-	11.7072	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-23065)		+/-	89.4653	µg/mL	Unstressed
	Purity 99%		+/-	98.2942	µg/mL	Stressed
5	Chrysene-d12	2,011.8 µg/mL	+/-	11.6968	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-25081)		+/-	89.3853	µg/mL	Unstressed
	Purity 99%		+/-	98.2063	µg/mL	Stressed
6	Perylene-d12	2,017.8 µg/mL	+/-	11.7317	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-24113)		+/-	89.6519	µg/mL	Unstressed
	Purity 99%		+/-	98.4992	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

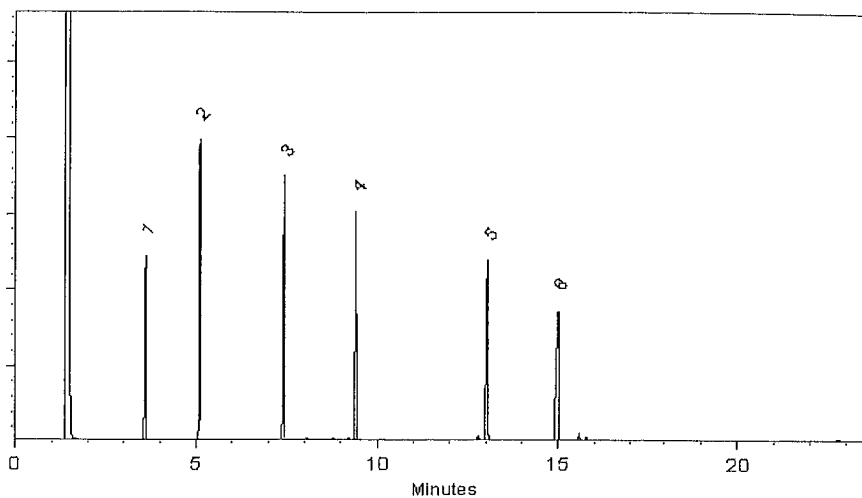
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Cheryl Graham
Cheryl Graham - Mix Technician

Date Mixed: 17-Nov-2014 Balance: 1128342313

Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 19-Nov-2014

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



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Catalog No. : 567685 - 00001 **Lot No.:** A092712
Description : 8270 Surrogate Standard
8270 Surrogate Standard 5000 ug/ml, Methylene Chloride, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : January 2018 **Storage:** 10°C or colder
Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Fluorophenol	5,000.0 µg/mL	+/-	29.2761	µg/mL	Gravimetric
	CAS # 367-12-4		+/-	132.9947	µg/mL	Unstressed
	Purity 99%		+/-	163.4399	µg/mL	Stressed
2	Phenol-d5	5,000.0 µg/mL	+/-	29.2761	µg/mL	Gravimetric
	CAS # 4165-62-2		+/-	132.9947	µg/mL	Unstressed
	Purity 99%		+/-	163.4399	µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0 µg/mL	+/-	29.2761	µg/mL	Gravimetric
	CAS # 4165-60-0		+/-	132.9947	µg/mL	Unstressed
	Purity 99%		+/-	163.4399	µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0 µg/mL	+/-	29.2761	µg/mL	Gravimetric
	CAS # 321-60-8		+/-	132.9947	µg/mL	Unstressed
	Purity 99%		+/-	163.4399	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0 µg/mL	+/-	29.2761	µg/mL	Gravimetric
	CAS # 118-79-6		+/-	132.9947	µg/mL	Unstressed
	Purity 99%		+/-	163.4399	µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0 µg/mL	+/-	29.2761	µg/mL	Gravimetric
	CAS # 1718-51-0		+/-	132.9947	µg/mL	Unstressed
	Purity 99%		+/-	163.4399	µg/mL	Stressed

Solvent: Methylene Chloride
 CAS # 75-09-2
 Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.



CERTIFIED REFERENCE MATERIAL

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Gravimetric Certificate



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


Catalog No. : 568023 Lot No.: A0107887

Description : 8270 Famphur Standard
8270 Famphur Standard 2,000 µg/ml, Methylene Chloride, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : December 31, 2016 Storage: 10°C or colder

Handling: This product is photosensitive.



3049651
 ID: MS-568023_00010
 Exp: 12/31/16 Pripd: DCK
 RES HSLA Famphur 2000ug/ml

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Famphur CAS # 52-85-7 (Lot 2451100) Purity 99%	2,000.0 µg/mL	+/- 20.1475	µg/mL	Gravimetric	
			+/- 73.8678	µg/mL	Unstressed	
			+/- 73.8702	µg/mL	Stressed	

Solvent: Methylene Chloride
 CAS # 75-09-2
 Purity 99%

Michael Maje

Date Mixed: 18-Dec-2014 Balance: 1128353505

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



CERTIFIED REFERENCE MATERIAL

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Catalog No. : 569729 **Lot No.:** A0109703

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.


 3223427
 ID: MS-569729_00025
 Exp: 09/30/16 Prpdt: DCK
 RES HSLA Mega Mix 1000ug/

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dioxane	1,001.8 µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF2002V)		+/-	10.9684	µg/mL	Unstressed
	Purity 99%		+/-	18.6042	µg/mL	Stressed
2	Pyridine	1,004.7 µg/mL	+/-	5.8414	µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)		+/-	11.0002	µg/mL	Unstressed
	Purity 99%		+/-	18.6581	µg/mL	Stressed
3	N-Nitrosodimethylamine	1,000.0 µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)		+/-	10.9487	µg/mL	Unstressed
	Purity 99%		+/-	18.5708	µg/mL	Stressed
4	Aniline	1,000.9 µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/-	10.9586	µg/mL	Unstressed
	Purity 99%		+/-	18.5875	µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,001.9 µg/mL	+/-	5.8251	µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)		+/-	10.9695	µg/mL	Unstressed
	Purity 99%		+/-	18.6061	µg/mL	Stressed
6	2-Chlorophenol	1,001.4 µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)		+/-	10.9640	µg/mL	Unstressed
	Purity 99%		+/-	18.5968	µg/mL	Stressed
7	Phenol	1,000.3 µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBC6998V)		+/-	10.9520	µg/mL	Unstressed
	Purity 99%		+/-	18.5764	µg/mL	Stressed

8	n-Decane (C10) CAS # 124-18-5 Purity 99%	(Lot SHBF1587V)	1,002.1 µg/mL	+/- 5.8263 +/- 10.9717 +/- 18.6098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBL3891V)	1,001.1 µg/mL	+/- 5.8205 +/- 10.9607 +/- 18.5912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBC1891V)	1,001.6 µg/mL	+/- 5.8234 +/- 10.9662 +/- 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot 68996CMV)	1,001.4 µg/mL	+/- 5.8222 +/- 10.9640 +/- 18.5968	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Benzyl alcohol CAS # 100-51-6 Purity 99%	(Lot SHBC1850V)	1,001.3 µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	2,2'-oxybis(1-chloropropane) CAS # 108-60-1 Purity 99%	(Lot 2-KMW-57-8)	1,000.8 µg/mL	+/- 5.8187 +/- 10.9575 +/- 18.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2-Methylphenol (o-cresol) CAS # 95-48-7 Purity 99%	(Lot SHBC1479V)	1,002.9 µg/mL	+/- 5.8309 +/- 10.9804 +/- 18.6246	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Hexachloroethane CAS # 67-72-1 Purity 99%	(Lot 4H3SF)	1,000.9 µg/mL	+/- 5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Acetophenone CAS # 98-86-2 Purity 99%	(Lot MKBR7156V)	1,003.6 µg/mL	+/- 5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	N-Nitroso-di-n-propylamine CAS # 621-64-7 Purity 99%	(Lot OPAGF)	1,001.8 µg/mL	+/- 5.8246 +/- 10.9684 +/- 18.6042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	4-Methylphenol (p-cresol) CAS # 106-44-5 Purity 99%	(Lot 49396APV)	501.2 µg/mL	+/- 2.9208 +/- 5.4911 +/- 9.3098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	3-Methylphenol (m-cresol) CAS # 108-39-4 Purity 99%	(Lot SHBD0627V)	500.2 µg/mL	+/- 2.9149 +/- 5.4801 +/- 9.2912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Nitrobenzene CAS # 98-95-3 Purity 99%	(Lot SHBB0246V)	1,001.7 µg/mL	+/- 5.8240 +/- 10.9673 +/- 18.6024	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	Isophorone CAS # 78-59-1 Purity 99%	(Lot MKBG2442V)	1,001.1 µg/mL	+/- 5.8205 +/- 10.9607 +/- 18.5912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	2-Nitrophenol CAS # 88-75-5 Purity 99%	(Lot BCBH7602V)	1,003.1 µg/mL	+/- 5.8321 +/- 10.9826 +/- 18.6284	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	2,4-Dimethylphenol CAS # 105-67-9 Purity 99%	(Lot 10165155)	1,003.0 µg/mL	+/- 5.8315 +/- 10.9815 +/- 18.6265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,002.1 µg/mL	+/- 5.8263 +/- 10.9717 +/- 18.6098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,002.8 µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	1,000.4 µg/mL	+/- 5.8163 +/- 10.9529 +/- 18.5779	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,002.5 µg/mL	+/- 5.8286 +/- 10.9761 +/- 18.6172	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,001.7 µg/mL	+/- 5.8240 +/- 10.9673 +/- 18.6024	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 98%	(Lot 12528PH)	1,000.3 µg/mL	+/- 5.8157 +/- 10.9518 +/- 18.5761	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,002.1 µg/mL	+/- 5.8260 +/- 10.9711 +/- 18.6089	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	1,000.2 µg/mL	+/- 5.8154 +/- 10.9512 +/- 18.5749	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,000.9 µg/mL	+/- 5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	990.0 µg/mL	+/- 5.7692 +/- 10.8463 +/- 18.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,000.2 µg/mL	+/- 5.8152 +/- 10.9509 +/- 18.5745	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,000.2 µg/mL	+/- 5.8152 +/- 10.9509 +/- 18.5745	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	999.9 µg/mL	+/- 5.8135 +/- 10.9475 +/- 18.5688	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,002.2 µg/mL	+/- 5.8269 +/- 10.9728 +/- 18.6116	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot FIJ01)	1,000.3 µg/mL	+/- 5.8158 +/- 10.9520 +/- 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.7 µg/mL	+/- 5.8298 +/- 10.9783 +/- 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,003.4 µg/mL	+/- 5.8339 +/- 10.9859 +/- 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.3 µg/mL	+/- 5.8333 +/- 10.9848 +/- 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,001.2 µg/mL	+/- 5.8211 +/- 10.9618 +/- 18.5931	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,000.5 µg/mL	+/- 5.8170 +/- 10.9542 +/- 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.9 µg/mL	+/- 5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBH3748V)	1,003.3 µg/mL	+/- 5.8333 +/- 10.9848 +/- 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,000.1 µg/mL	+/- 11.6288 +/- 21.8985 +/- 37.1434	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,003.0 µg/mL	+/- 5.8315 +/- 10.9815 +/- 18.6265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,000.8 µg/mL	+/- 5.8190 +/- 10.9580 +/- 18.5865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,001.8 µg/mL	+/- 5.8246 +/- 10.9684 +/- 18.6042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.4 µg/mL	+/- 11.6479 +/- 21.9346 +/- 37.2047	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 99%	(Lot FN10221307)	1,003.5 µg/mL	+/- 5.8344 +/- 10.9870 +/- 18.6358	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	999.6 µg/mL	+/- 5.8118 +/- 10.9443 +/- 18.5634	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,000.1 µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBD4570V)	1,003.0 µg/mL	+/- 5.8315 +/- 10.9815 +/- 18.6265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,001.1 µg/mL	+/- 5.8205 +/- 10.9607 +/- 18.5912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS #	103-33-3	(Lot MKBS2559V)		+/-	10.9586	µg/mL	Unstressed
	Purity	99%			+/-	18.5875	µg/mL	Stressed
57	Diphenylamine		1,701.0	µg/mL	+/-	9.8898	µg/mL	Gravimetric
	CAS #	122-39-4	(Lot MKBN8295V)		+/-	18.6237	µg/mL	Unstressed
	Purity	99%			+/-	31.5889	µg/mL	Stressed
58	4-Nitroaniline		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS #	100-01-6	(Lot BCBG4702V)		+/-	10.9772	µg/mL	Unstressed
	Purity	99%			+/-	18.6191	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,000.8	µg/mL	+/-	11.6328	µg/mL	Gravimetric
	CAS #	534-52-1	(Lot LC06195V)		+/-	21.9062	µg/mL	Unstressed
	Purity	99%			+/-	37.1564	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		999.5	µg/mL	+/-	5.8112	µg/mL	Gravimetric
	CAS #	101-55-3	(Lot STBB9729V)		+/-	10.9432	µg/mL	Unstressed
	Purity	98%			+/-	18.5615	µg/mL	Stressed
61	Hexachlorobenzene		1,002.7	µg/mL	+/-	5.8300	µg/mL	Gravimetric
	CAS #	118-74-1	(Lot LC04221V)		+/-	10.9787	µg/mL	Unstressed
	Purity	98%			+/-	18.6216	µg/mL	Stressed
62	Pentachlorophenol		2,006.0	µg/mL	+/-	11.6631	µg/mL	Gravimetric
	CAS #	87-86-5	(Lot 150212JLM)		+/-	21.9631	µg/mL	Unstressed
	Purity	99%			+/-	37.2530	µg/mL	Stressed
63	Phenanthrene		1,001.9	µg/mL	+/-	5.8249	µg/mL	Gravimetric
	CAS #	85-01-8	(Lot MKBQ8219V)		+/-	10.9690	µg/mL	Unstressed
	Purity	98%			+/-	18.6052	µg/mL	Stressed
64	n-Octadecane (C18)		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS #	593-45-3	(Lot OGC DK)		+/-	10.9520	µg/mL	Unstressed
	Purity	99%			+/-	18.5764	µg/mL	Stressed
65	Anthracene		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS #	120-12-7	(Lot MKBR2268V)		+/-	10.9618	µg/mL	Unstressed
	Purity	99%			+/-	18.5931	µg/mL	Stressed
66	Carbazole		1,002.9	µg/mL	+/-	5.8311	µg/mL	Gravimetric
	CAS #	86-74-8	(Lot S42950-417)		+/-	10.9808	µg/mL	Unstressed
	Purity	98%			+/-	18.6252	µg/mL	Stressed
67	Di-n-butylphthalate		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS #	84-74-2	(Lot MKBL8501V)		+/-	10.9651	µg/mL	Unstressed
	Purity	99%			+/-	18.5986	µg/mL	Stressed
68	Fluoranthene		999.8	µg/mL	+/-	5.8129	µg/mL	Gravimetric
	CAS #	206-44-0	(Lot MKBQ6360V)		+/-	10.9465	µg/mL	Unstressed
	Purity	98%			+/-	18.5670	µg/mL	Stressed
69	Pyrene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS #	129-00-0	(Lot BCBL6786V)		+/-	10.9629	µg/mL	Unstressed
	Purity	99%			+/-	18.5949	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS #	85-68-7	(Lot 03027HV)		+/-	10.9509	µg/mL	Unstressed
	Purity	99%			+/-	18.5745	µg/mL	Stressed
71	Benz(a)anthracene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS #	56-55-3	(Lot ER031412-01)		+/-	10.9487	µg/mL	Unstressed
	Purity	99%			+/-	18.5708	µg/mL	Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,004.7 µg/mL	+/- 5.8414 +/- 11.0002 +/- 18.6581	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,002.2 µg/mL	+/- 5.8269 +/- 10.9728 +/- 18.6116	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,001.9 µg/mL	+/- 5.8251 +/- 10.9695 +/- 18.6061	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,001.3 µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,000.5 µg/mL	+/- 5.8170 +/- 10.9542 +/- 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,002.5 µg/mL	+/- 5.8286 +/- 10.9761 +/- 18.6172	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,003.3 µg/mL	+/- 5.8333 +/- 10.9848 +/- 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,000.7 µg/mL	+/- 5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.0 µg/mL	+/- 5.8199 +/- 10.9596 +/- 18.5894	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%					

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 µg/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 µg/mL. N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine. N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

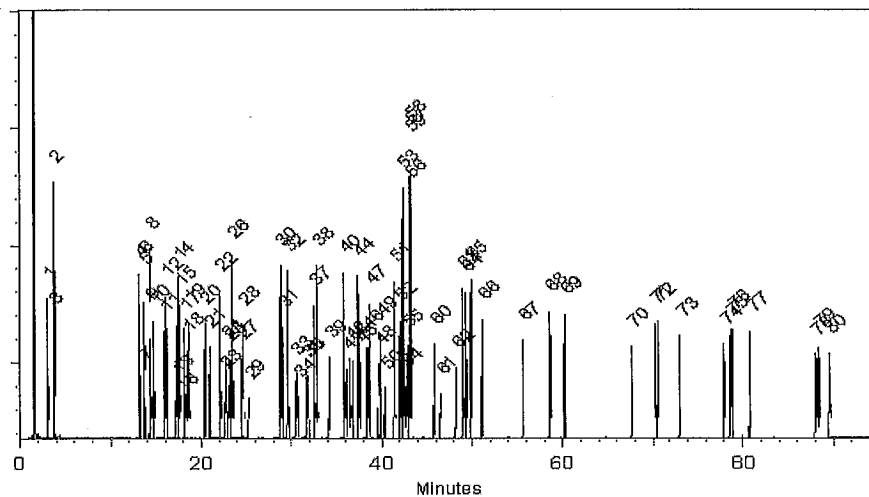
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

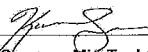
Inj. Temp:
250°C

Det. Temp:
300°C


Det. Type:
FID



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


Kendra Swope - Mix Technician

Date Mixed: 16-Mar-2015 Balance: B442140311


Tyler Brown - QA Analyst

Date Passed: 23-Mar-2015

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



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dioxane	1,001.1 µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)		+/-	10.9607	µg/mL	Unstressed
	Purity 99%		+/-	18.5912	µg/mL	Stressed
2	Pyridine	1,006.2 µg/mL	+/-	5.8501	µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)		+/-	11.0166	µg/mL	Unstressed
	Purity 99%		+/-	18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)		+/-	11.0472	µg/mL	Unstressed
	Purity 99%		+/-	18.7379	µg/mL	Stressed
4	Aniline	1,009.1 µg/mL	+/-	5.8670	µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/-	11.0483	µg/mL	Unstressed
	Purity 99%		+/-	18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/-	5.8449	µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)		+/-	11.0067	µg/mL	Unstressed
	Purity 99%		+/-	18.6692	µg/mL	Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)		+/-	10.9761	µg/mL	Unstressed
	Purity 99%		+/-	18.6172	µg/mL	Stressed
7	Phenol	1,004.4 µg/mL	+/-	5.8397	µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)		+/-	10.9969	µg/mL	Unstressed
	Purity 99%		+/-	18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

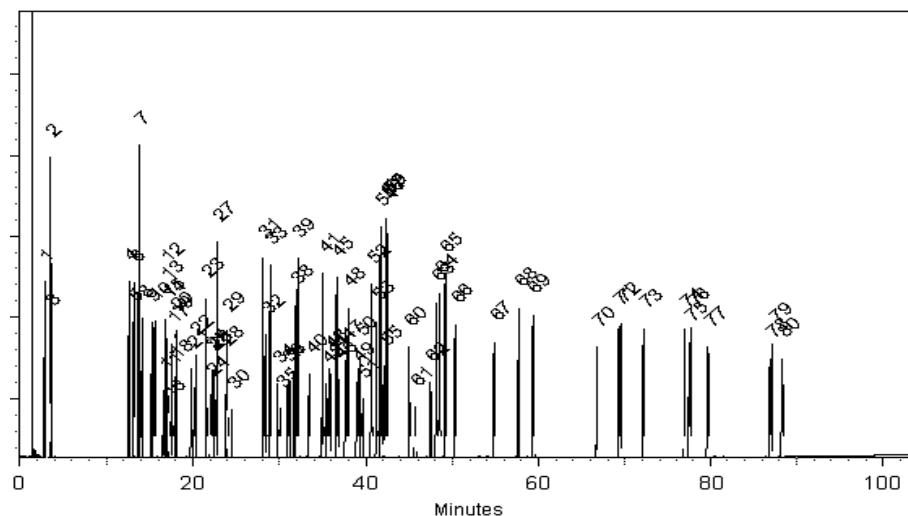
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205	µg/mL Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)			+/- 10.9607 µg/mL Unstressed
	Purity 99%			+/- 18.5912 µg/mL Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501	µg/mL Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)			+/- 11.0166 µg/mL Unstressed
	Purity 99%			+/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664	µg/mL Gravimetric
	CAS # 62-75-9 (Lot 3498100)			+/- 11.0472 µg/mL Unstressed
	Purity 99%			+/- 18.7379 µg/mL Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670	µg/mL Gravimetric
	CAS # 62-53-3 (Lot K22Z462)			+/- 11.0483 µg/mL Unstressed
	Purity 99%			+/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449	µg/mL Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)			+/- 11.0067 µg/mL Unstressed
	Purity 99%			+/- 18.6692 µg/mL Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286	µg/mL Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)			+/- 10.9761 µg/mL Unstressed
	Purity 99%			+/- 18.6172 µg/mL Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397	µg/mL Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)			+/- 10.9969 µg/mL Unstressed
	Purity 99%			+/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

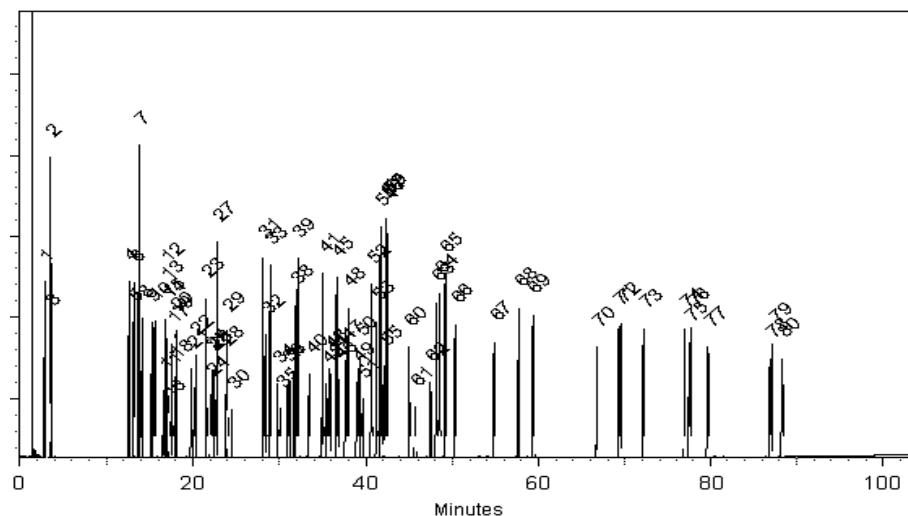
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)			+/- 10.9607 µg/mL Unstressed
	Purity 99%			+/- 18.5912 µg/mL Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)			+/- 11.0166 µg/mL Unstressed
	Purity 99%			+/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)			+/- 11.0472 µg/mL Unstressed
	Purity 99%			+/- 18.7379 µg/mL Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)			+/- 11.0483 µg/mL Unstressed
	Purity 99%			+/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)			+/- 11.0067 µg/mL Unstressed
	Purity 99%			+/- 18.6692 µg/mL Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)			+/- 10.9761 µg/mL Unstressed
	Purity 99%			+/- 18.6172 µg/mL Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)			+/- 10.9969 µg/mL Unstressed
	Purity 99%			+/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

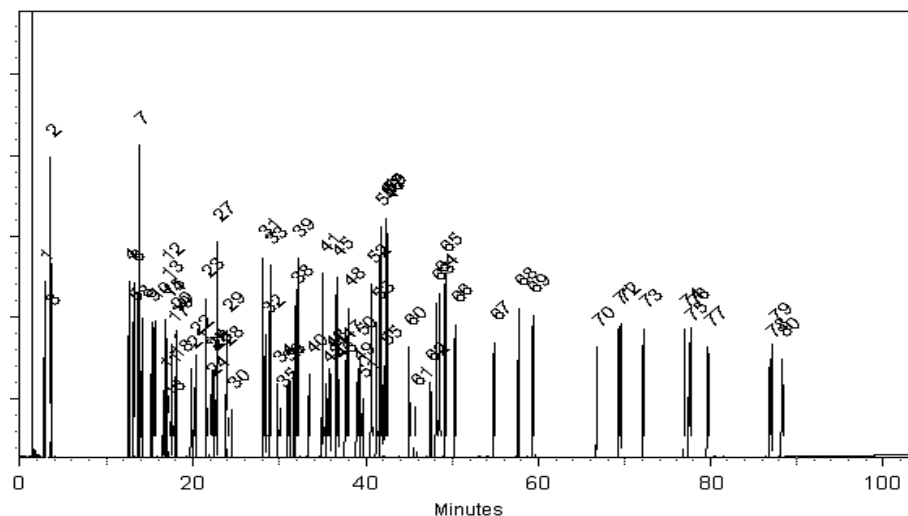
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)			+/- 10.9607 µg/mL Unstressed
	Purity 99%			+/- 18.5912 µg/mL Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)			+/- 11.0166 µg/mL Unstressed
	Purity 99%			+/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)			+/- 11.0472 µg/mL Unstressed
	Purity 99%			+/- 18.7379 µg/mL Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)			+/- 11.0483 µg/mL Unstressed
	Purity 99%			+/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)			+/- 11.0067 µg/mL Unstressed
	Purity 99%			+/- 18.6692 µg/mL Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)			+/- 10.9761 µg/mL Unstressed
	Purity 99%			+/- 18.6172 µg/mL Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)			+/- 10.9969 µg/mL Unstressed
	Purity 99%			+/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

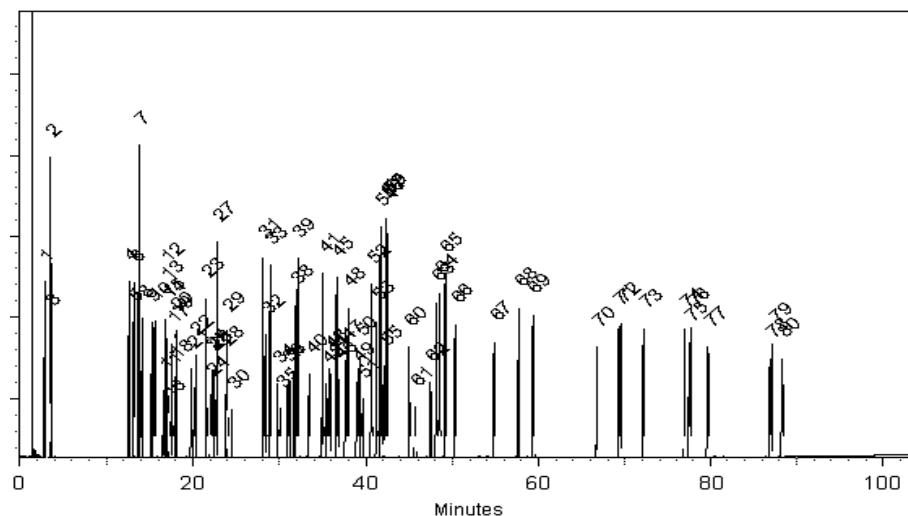
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)			+/- 10.9607 µg/mL Unstressed
	Purity 99%			+/- 18.5912 µg/mL Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)			+/- 11.0166 µg/mL Unstressed
	Purity 99%			+/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)			+/- 11.0472 µg/mL Unstressed
	Purity 99%			+/- 18.7379 µg/mL Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)			+/- 11.0483 µg/mL Unstressed
	Purity 99%			+/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)			+/- 11.0067 µg/mL Unstressed
	Purity 99%			+/- 18.6692 µg/mL Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)			+/- 10.9761 µg/mL Unstressed
	Purity 99%			+/- 18.6172 µg/mL Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)			+/- 10.9969 µg/mL Unstressed
	Purity 99%			+/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

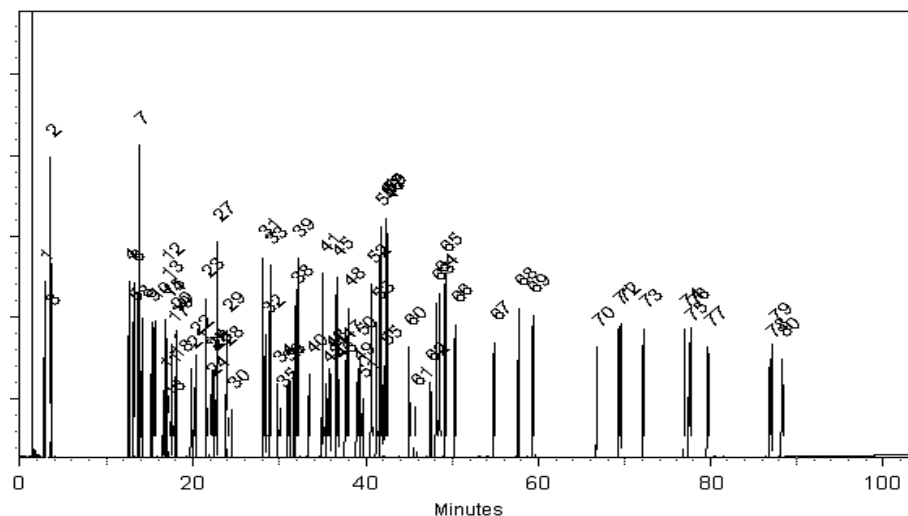
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)			+/- 10.9607 µg/mL Unstressed
	Purity 99%			+/- 18.5912 µg/mL Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)			+/- 11.0166 µg/mL Unstressed
	Purity 99%			+/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)			+/- 11.0472 µg/mL Unstressed
	Purity 99%			+/- 18.7379 µg/mL Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)			+/- 11.0483 µg/mL Unstressed
	Purity 99%			+/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)			+/- 11.0067 µg/mL Unstressed
	Purity 99%			+/- 18.6692 µg/mL Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)			+/- 10.9761 µg/mL Unstressed
	Purity 99%			+/- 18.6172 µg/mL Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)			+/- 10.9969 µg/mL Unstressed
	Purity 99%			+/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

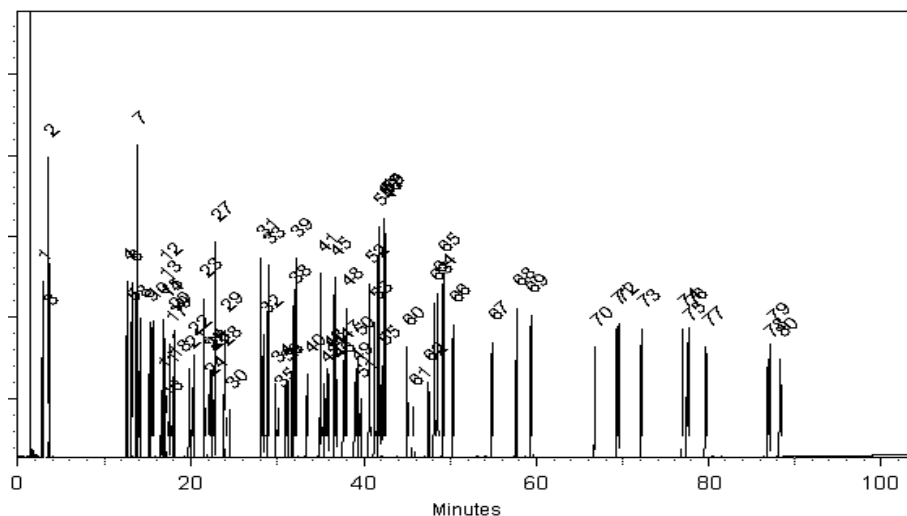
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,4-Dioxane CAS # 123-91-1 (Lot SHBF7514V) Purity 99%	1,001.1 µg/mL	+/- 5.8205 µg/mL Gravimetric +/- 10.9607 µg/mL Unstressed +/- 18.5912 µg/mL Stressed
2	Pyridine CAS # 110-86-1 (Lot SHBC7174V) Purity 99%	1,006.2 µg/mL	+/- 5.8501 µg/mL Gravimetric +/- 11.0166 µg/mL Unstressed +/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine CAS # 62-75-9 (Lot 3498100) Purity 99%	1,009.0 µg/mL	+/- 5.8664 µg/mL Gravimetric +/- 11.0472 µg/mL Unstressed +/- 18.7379 µg/mL Stressed
4	Aniline CAS # 62-53-3 (Lot K22Z462) Purity 99%	1,009.1 µg/mL	+/- 5.8670 µg/mL Gravimetric +/- 11.0483 µg/mL Unstressed +/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether CAS # 111-44-4 (Lot 45296HKV) Purity 99%	1,005.3 µg/mL	+/- 5.8449 µg/mL Gravimetric +/- 11.0067 µg/mL Unstressed +/- 18.6692 µg/mL Stressed
6	2-Chlorophenol CAS # 95-57-8 (Lot MKBD3900V) Purity 99%	1,002.5 µg/mL	+/- 5.8286 µg/mL Gravimetric +/- 10.9761 µg/mL Unstressed +/- 18.6172 µg/mL Stressed
7	Phenol CAS # 108-95-2 (Lot SHBF1351V) Purity 99%	1,004.4 µg/mL	+/- 5.8397 µg/mL Gravimetric +/- 10.9969 µg/mL Unstressed +/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

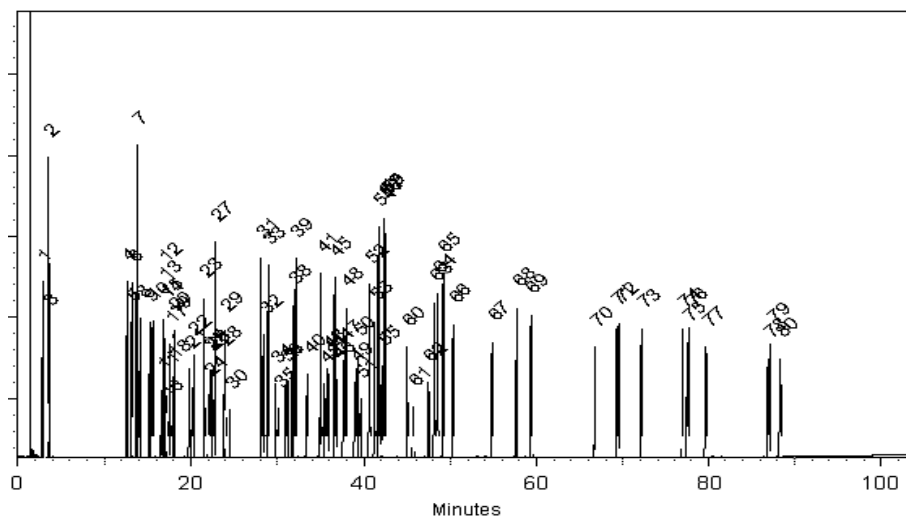
Carrier Gas:
 hydrogen-constant pressure 10 psi

Temp. Program:
 35°C (hold 3 min.) to 330°C
 @ 3°C/min. (hold 3 min.)

Inj. Temp:
 250°C

Det. Temp:
 300°C

Det. Type:
 FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
 Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)
8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)			+/- 10.9607 µg/mL Unstressed
	Purity 99%			+/- 18.5912 µg/mL Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)			+/- 11.0166 µg/mL Unstressed
	Purity 99%			+/- 18.6859 µg/mL Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)			+/- 11.0472 µg/mL Unstressed
	Purity 99%			+/- 18.7379 µg/mL Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)			+/- 11.0483 µg/mL Unstressed
	Purity 99%			+/- 18.7398 µg/mL Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)			+/- 11.0067 µg/mL Unstressed
	Purity 99%			+/- 18.6692 µg/mL Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)			+/- 10.9761 µg/mL Unstressed
	Purity 99%			+/- 18.6172 µg/mL Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)			+/- 10.9969 µg/mL Unstressed
	Purity 99%			+/- 18.6525 µg/mL Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	10.9586	µg/mL	Unstressed
					+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 98%	(Lot SHBC5541V)	999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
					+/-	10.9475	µg/mL	Unstressed
					+/-	18.5688	µg/mL	Stressed
27	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
					+/-	11.0210	µg/mL	Unstressed
					+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol CAS # 87-65-0 Purity 99%	(Lot MKBN2776V)	1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
					+/-	10.9531	µg/mL	Unstressed
					+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 99%	(Lot 12528PH)	1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
					+/-	10.9881	µg/mL	Unstressed
					+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	10.9615	µg/mL	Unstressed
					+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
					+/-	10.9406	µg/mL	Unstressed
					+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
					+/-	10.9761	µg/mL	Unstressed
					+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 525000-10)	1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
					+/-	10.9673	µg/mL	Unstressed
					+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
					+/-	10.9739	µg/mL	Unstressed
					+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 3691100)	1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
					+/-	11.0461	µg/mL	Unstressed
					+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 98%	(Lot MKBL4698V)	1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
					+/-	10.9529	µg/mL	Unstressed
					+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
					+/-	11.0100	µg/mL	Unstressed
					+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot AJ2UI-TE)	1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
					+/-	10.9651	µg/mL	Unstressed
					+/-	18.5986	µg/mL	Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	10.9706	µg/mL	Unstressed
					+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBK7597V)	1,008.4	µg/mL	+/-	5.8629 11.0407 18.7268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthylene CAS # 208-96-8 Purity 99%	(Lot ER030707-01)	1,003.4	µg/mL	+/-	5.8339 10.9859 18.6339	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,3-Dinitrobenzene CAS # 99-65-0 Purity 99%	(Lot BCBB1436V)	1,000.3	µg/mL	+/-	5.8158 10.9520 18.5764	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Dimethylphthalate CAS # 131-11-3 Purity 99%	(Lot 10117699)	1,002.6	µg/mL	+/-	5.8292 10.9772 18.6191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	2,6-Dinitrotoluene CAS # 606-20-2 Purity 99%	(Lot 1437483V)	1,000.1	µg/mL	+/-	5.8147 10.9498 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKBP0384V)	1,001.6	µg/mL	+/-	5.8234 10.9662 18.6005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBD8351V)	2,001.6	µg/mL	+/-	11.6375 21.9149 37.1713	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKBH8392V)	1,000.5	µg/mL	+/-	5.8170 10.9542 18.5801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	3-Nitroaniline CAS # 99-09-2 Purity 97%	(Lot MKBH5131V)	1,002.7	µg/mL	+/-	5.8297 10.9781 18.6207	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,002.7	µg/mL	+/-	5.8298 10.9783 18.6209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKBK1842V)	2,003.0	µg/mL	+/-	11.6456 21.9302 37.1973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 98%	(Lot B15W0428)	1,000.2	µg/mL	+/-	5.8152 10.9508 18.5743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Fluorene CAS # 86-73-7 Purity 98%	(Lot 10174662)	996.0	µg/mL	+/-	5.7907 10.9046 18.4960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKBS2248V)	1,003.3	µg/mL	+/-	5.8333 10.9848 18.6321	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBG1026V)	1,005.6	µg/mL	+/-	5.8466 11.0100 18.6748	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot MKBJ3578V)	1,004.9	µg/mL	+/-	5.8426 11.0023 18.6618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Azobenzene CAS # 103-33-3 Purity 99%	(Lot MKBS2559V)	1,007.5	µg/mL	+/-	5.8577 +/- 11.0308 +/- 18.7101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,708.5	µg/mL	+/-	9.9334 +/- 18.7059 +/- 31.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot BCBG4702V)	1,006.1	µg/mL	+/-	5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot LC12394V)	2,007.9	µg/mL	+/-	11.6741 +/- 21.9839 +/- 37.2883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 98%	(Lot STBB9729V)	1,009.7	µg/mL	+/-	5.8704 +/- 11.0548 +/- 18.7508	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Hexachlorobenzene CAS # 118-74-1 Purity 98%	(Lot LB98981V)	1,002.5	µg/mL	+/-	5.8289 +/- 10.9765 +/- 18.6180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 150212JLM)	2,005.1	µg/mL	+/-	11.6578 +/- 21.9532 +/- 37.2363	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Phenanthrene CAS # 85-01-8 Purity 98%	(Lot MKBQ8219V)	1,006.1	µg/mL	+/-	5.8494 +/- 11.0151 +/- 18.6835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	n-Octadecane (C18) CAS # 593-45-3 Purity 99%	(Lot OGCDK)	1,005.4	µg/mL	+/-	5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,000.9	µg/mL	+/-	5.8193 +/- 10.9586 +/- 18.5875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,003.4	µg/mL	+/-	5.8340 +/- 10.9862 +/- 18.6343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBL8501V)	1,005.8	µg/mL	+/-	5.8478 +/- 11.0122 +/- 18.6785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot MKBQ6360V)	996.1	µg/mL	+/-	5.7912 +/- 10.9057 +/- 18.4978	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,000.6	µg/mL	+/-	5.8175 +/- 10.9550 +/- 18.5816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,000.7	µg/mL	+/-	5.8182 +/- 10.9564 +/- 18.5838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,003.6	µg/mL	+/-	5.8350 +/- 10.9881 +/- 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,000.1	µg/mL	+/- 5.8147 +/- 10.9498 +/- 18.5726	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBK2695V)	1,008.5	µg/mL	+/- 5.8635 +/- 11.0418 +/- 18.7286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 3589500)	1,007.8	µg/mL	+/- 5.8594 +/- 11.0341 +/- 18.7156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot ER03101401)	1,005.4	µg/mL	+/- 5.8455 +/- 11.0078 +/- 18.6711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(k)fluoranthene CAS # 207-08-9 Purity 99%	(Lot 012012k)	1,006.0	µg/mL	+/- 5.8490 +/- 11.0144 +/- 18.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Benzo(a)pyrene CAS # 50-32-8 Purity 99%	(Lot ER071309-02)	1,006.1	µg/mL	+/- 5.8496 +/- 11.0155 +/- 18.6841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Indeno(1,2,3-cd)pyrene CAS # 193-39-5 Purity 99%	(Lot ER082107-02)	1,002.8	µg/mL	+/- 5.8304 +/- 10.9794 +/- 18.6228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
79	Dibenz(a,h)anthracene CAS # 53-70-3 Purity 99%	(Lot ER032211-01)	1,008.0	µg/mL	+/- 5.8606 +/- 11.0363 +/- 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
80	Benzo(g,h,i)perylene CAS # 191-24-2 Purity 99%	(Lot ER020708-08)	1,001.3	µg/mL	+/- 5.8216 +/- 10.9629 +/- 18.5949	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	Methylene Chloride CAS # 75-09-2 Purity 99%						

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.

N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

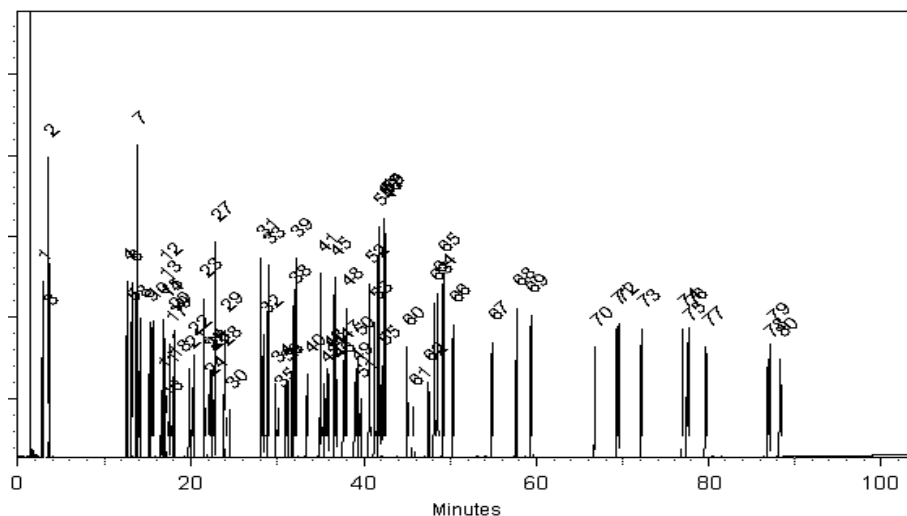
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon
Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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.



3223477
ID: MS-569730 HSL_00001
Exp: 07/31/16 PpPd: DCK
HSLA Amine Mix (2015) 200

Catalog No. : 569730 **Lot No.:** A0108709

Description : 8270 List 1 / Std #9
8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2016 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.



3223479
ID: MS-569730 AFC_00001
Exp: 07/31/16 PpPd: DCK
HSLA Amine Mix (2015) 200

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)
1	Benzidine	2,006.6 µg/mL	+/- 11.6665 µg/mL Gravimetric
	CAS # 92-87-5 (Lot 141208JLM)		+/- 21.9697 µg/mL Unstressed
	Purity 99%		+/- 37.2641 µg/mL Stressed
2	3,3'-Dichlorobenzidine	2,001.0 µg/mL	+/- 11.6340 µg/mL Gravimetric
	CAS # 91-94-1 (Lot 141205JLM)		+/- 21.9083 µg/mL Unstressed
	Purity 99%		+/- 37.1601 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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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. : 569731 Lot No.: A0107943

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : June 30, 2016 Storage: 10°C or colder



3231000
ID: MS-569731_00013
Exp: 07/31/16 Prpd: DCK
HSLA Benzoic Acid (2015)

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Indene	2,001.4 µg/mL	+/- 11.6363 µg/mL Gravimetric
	CAS # 95-13-6 (Lot MKBP3098V)		+/- 22.5687 µg/mL Unstressed
	Purity 99%		+/- 25.9700 µg/mL Stressed
2	Benzoic acid	2,005.8 µg/mL	+/- 11.6619 µg/mL Gravimetric
	CAS # 65-85-0 (Lot MKBL6689V)		+/- 22.6183 µg/mL Unstressed
	Purity 99%		+/- 26.0271 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Indene	2,001.4 µg/mL	+/- 11.6363 µg/mL Gravimetric
	CAS # 95-13-6	(Lot MKBP3098V)	+/- 22.5687 µg/mL Unstressed
	Purity 99%		+/- 25.9700 µg/mL Stressed
2	Benzoic acid	2,000.1 µg/mL	+/- 11.6288 µg/mL Gravimetric
	CAS # 65-85-0	(Lot MKBL6689V)	+/- 22.5540 µg/mL Unstressed
	Purity 99%		+/- 25.9531 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Indene	2,001.4 µg/mL	+/- 11.6363 µg/mL Gravimetric
	CAS # 95-13-6 (Lot MKBP3098V)		+/- 22.5687 µg/mL Unstressed
	Purity 99%		+/- 25.9700 µg/mL Stressed
2	Benzoic acid	2,000.1 µg/mL	+/- 11.6288 µg/mL Gravimetric
	CAS # 65-85-0 (Lot MKBL6689V)		+/- 22.5540 µg/mL Unstressed
	Purity 99%		+/- 25.9531 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Indene	2,001.4 µg/mL (Lot MKBP3098V)	+/- 11.6363 µg/mL Gravimetric
	CAS # 95-13-6		+/- 22.5687 µg/mL Unstressed
	Purity 99%		+/- 25.9700 µg/mL Stressed
2	Benzoic acid	2,000.1 µg/mL (Lot MKBL6689V)	+/- 11.6288 µg/mL Gravimetric
	CAS # 65-85-0		+/- 22.5540 µg/mL Unstressed
	Purity 99%		+/- 25.9531 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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Catalog No. : 569731 **Lot No.:** A0108988
Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Indene	2,001.4 µg/mL	+/- 11.6363 µg/mL Gravimetric
	CAS # 95-13-6 (Lot MKBP3098V)		+/- 22.5687 µg/mL Unstressed
	Purity 99%		+/- 25.9700 µg/mL Stressed
2	Benzoic acid	2,000.1 µg/mL	+/- 11.6288 µg/mL Gravimetric
	CAS # 65-85-0 (Lot MKBL6689V)		+/- 22.5540 µg/mL Unstressed
	Purity 99%		+/- 25.9531 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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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. : 569732 Lot No.: A0108989

Description : 8270 List 1 / Std #11
8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : August 31, 2016 Storage: 10°C or colder

Handling: This product is photosensitive.



3230998
ID: MS-569732 HSL_00001
Exp: 08/31/16 Prpd: DCK
8270 List 1/ Std 11 (2015)

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Benzaldehyde	2,011.6 µg/mL	+/- 11.6956 µg/mL Gravimetric
	CAS # 100-52-7 (Lot SHBD3510V)		+/- 64.4832 µg/mL Unstressed
	Purity 99%		+/- 74.9592 µg/mL Stressed
2	epsilon-Caprolactam	2,009.2 µg/mL	+/- 11.6817 µg/mL Gravimetric
	CAS # 105-60-2 (Lot I16X016)		+/- 64.4062 µg/mL Unstressed
	Purity 99%		+/- 74.8697 µg/mL Stressed
3	Atrazine	2,001.6 µg/mL	+/- 11.6372 µg/mL Gravimetric
	CAS # 1912-24-9 (Lot TZ8ED)		+/- 64.1611 µg/mL Unstressed
	Purity 98%		+/- 74.5847 µg/mL Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%



CERTIFIED REFERENCE MATERIAL

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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. : 569732 **Lot No.:** A0108989

Description : 8270 List 1 / Std #11
8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : August 31, 2016 **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	Benzaldehyde	2,011.6 µg/mL (Lot SHBD3510V)	+/-	11.6956	µg/mL	Gravimetric
	CAS # 100-52-7		+/-	64.4832	µg/mL	Unstressed
	Purity 99%		+/-	74.9592	µg/mL	Stressed
2	epsilon-Caprolactam	2,009.2 µg/mL (Lot I16X016)	+/-	11.6817	µg/mL	Gravimetric
	CAS # 105-60-2		+/-	64.4062	µg/mL	Unstressed
	Purity 99%		+/-	74.8697	µg/mL	Stressed
3	Atrazine	2,001.6 µg/mL (Lot TZ8ED)	+/-	11.6372	µg/mL	Gravimetric
	CAS # 1912-24-9		+/-	64.1611	µg/mL	Unstressed
	Purity 98%		+/-	74.5847	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

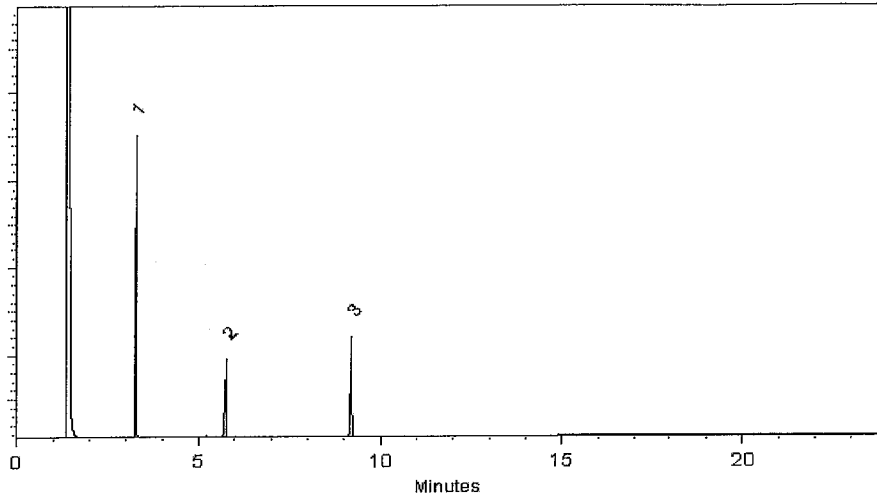
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Cheryl Graham
Cheryl Graham - Mix Technician

Date Mixed: 10-Feb-2015 Balance: 1128360905

Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 12-Feb-2015

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

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- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

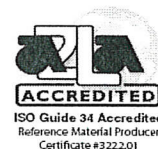


CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



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

Catalog No. : 569732.sec Lot No.: A0108042

Description : 8270 List 1 / Std #11
8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : June 30, 2016 Storage: 10°C or colder

Handling: This product is photosensitive.



3231454
ID: MS-569732SEC_00001
Exp: 06/30/16 Ppnd: DCK
RES 8270 List 1 / Std# 11

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)				
1	Benzaldehyde CAS # 100-52-7.SEC Purity 99% (Lot E7DWH) <i>Remove</i>	2,002.0 µg/mL	+/- 11.6398	µg/mL	Gravimetric		
			+/- 64.1754	µg/mL	Unstressed		
			+/- 74.6014	µg/mL	Stressed		
2	epsilon-Caprolactam CAS # 105-60-2.SEC Purity 99% (Lot BLJTB)	2,001.2 µg/mL	+/- 11.6351	µg/mL	Gravimetric		
			+/- 64.1498	µg/mL	Unstressed		
			+/- 74.5716	µg/mL	Stressed		
3	Atrazine CAS # 1912-24-9.SEC Purity 99% (Lot 2887600)	2,000.2 µg/mL	+/- 11.6293	µg/mL	Gravimetric		
			+/- 64.1177	µg/mL	Unstressed		
			+/- 74.5344	µg/mL	Stressed		

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Certification Summary

Client: Sundance Consulting, Inc
 Project/Site: Fort Wingate, New Mexico

TestAmerica Job ID: 280-76532-2

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 Hampshire	NELAP	1	205310
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	T104704183-15-11
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 8270D

Semivolatile Organic Compounds
(GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): Vf-5MS (30. ID: 0.25 (mm))

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
TMW38102015	280-76532-3	86	89	87	83	90	65
MW23102015	280-76532-4	86	89	88	84	93	58
DMW23102015	280-76532-5	84	86	84	80	90	55
TMW15102015	280-76532-6	72	78	83	80	87	85
DTW15102015	280-76532-7	78	79	82	77	81	76
	MB 280-304110/1-A	89	91	86	85	78	91
	LCS 280-304110/2-A	87	88	88	87	88	86
MW23102015MS MS	280-76532-4 MS	96	97	103	92	96	61
MW23102015MSD MSD	280-76532-4 MSD	91	93	99	88	97	57

	<u>QC LIMITS</u>
2FP = 2-Fluorophenol (Surr)	41-120
PHL = Phenol-d5 (Surr)	45-124
NBZ = Nitrobenzene-d5 (Surr)	42-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	42-131
TPH = Terphenyl-d14 (Surr)	20-130

Column to be used to flag recovery values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Matrix: Water Level: Low Lab File ID: K141352.D

Lab ID: LCS 280-304110/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Caprolactam	80.0	72.6	91	46-143	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Matrix: Water Level: Low Lab File ID: K141360.D

Lab ID: 280-76532-4 MS Client ID: MW23102015MS MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Caprolactam	82.7	2.5 U	77.6	94	46-143	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Matrix: Water Level: Low Lab File ID: K141361.D

Lab ID: 280-76532-4 MSD Client ID: MW23102015MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Caprolactam	81.8	79.2	97	2	30	46-143	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab File ID: K141351.D Lab Sample ID: MB 280-304110/1-A
 Matrix: Water Date Extracted: 11/10/2015 15:05
 Instrument ID: SMS_K Date Analyzed: 11/16/2015 17:48
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-304110/2-A	K141352.D	11/16/2015 18:15
TMW38102015	280-76532-3	K141358.D	11/16/2015 21:03
MW23102015	280-76532-4	K141359.D	11/16/2015 21:31
MW23102015MS MS	280-76532-4 MS	K141360.D	11/16/2015 21:59
MW23102015MSD MSD	280-76532-4 MSD	K141361.D	11/16/2015 22:27
DMW23102015	280-76532-5	K141362.D	11/16/2015 22:54
TMW15102015	280-76532-6	K141363.D	11/16/2015 23:22
DTW15102015	280-76532-7	K141364.D	11/16/2015 23:50

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab File ID: K141242.D DFTPP Injection Date: 11/12/2015
 Instrument ID: SMS_K DFTPP Injection Time: 12:29
 Analysis Batch No.: 304153

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	45.7
68	Less than 2% of mass 69	0.2 (0.6)1
69	Mass 69 Relative abundance	38.6
70	Less than 2% of mass 69	0.1 (0.2)1
127	10-80% of Base Peak	46.9
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	6.6
275	10-60% of Base Peak	21.5
365	Greater than 1% of mass 198	1.9
441	present but less than 24% of mass 442	6.9 (14.3)2
442	Greater than 50% of mass 198	48.3
443	15-24% of mass 442	9.3 (19.2)2

1-Value is % mass 69

2-Value is % mass 442

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
	ICIS 280-304153/3	K141243.D	11/12/2015	12:40
	STD004 280-304153/4	K141244.D	11/12/2015	13:08
	STD010 280-304153/5	K141245.D	11/12/2015	13:35
	STD020 280-304153/6	K141246.D	11/12/2015	14:03
	STD050 280-304153/7	K141247.D	11/12/2015	14:31
	STD120 280-304153/8	K141248.D	11/12/2015	14:59
	STD160 280-304153/9	K141249.D	11/12/2015	15:27
	STD200 280-304153/10	K141250.D	11/12/2015	15:55
	ICV 280-304153/11	K141251.D	11/12/2015	16:22
	ICV 280-304153/12	K141252.D	11/12/2015	16:50
	ICV 280-304153/13	K141253.D	11/12/2015	17:18

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab File ID: K141345.D DFTPP Injection Date: 11/16/2015
 Instrument ID: SMS_K DFTPP Injection Time: 15:27
 Analysis Batch No.: 304326

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	46.2
68	Less than 2% of mass 69	0.2 (0.6)1
69	Mass 69 Relative abundance	39.1
70	Less than 2% of mass 69	0.2 (0.5)1
127	10-80% of Base Peak	46.5
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	6.7
275	10-60% of Base Peak	20.2
365	Greater than 1% of mass 198	1.5
441	present but less than 24% of mass 442	6.8 (15.1)2
442	Greater than 50% of mass 198	45.1
443	15-24% of mass 442	9.4 (20.8)2

1-Value is % mass 69

2-Value is % mass 442

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 280-304326/3	K141348.D	11/16/2015	16:30
	MB 280-304110/1-A	K141351.D	11/16/2015	17:48
	LCS 280-304110/2-A	K141352.D	11/16/2015	18:15
TMW38102015	280-76532-3	K141358.D	11/16/2015	21:03
MW23102015	280-76532-4	K141359.D	11/16/2015	21:31
MW23102015MS MS	280-76532-4 MS	K141360.D	11/16/2015	21:59
MW23102015MSD MSD	280-76532-4 MSD	K141361.D	11/16/2015	22:27
DMW23102015	280-76532-5	K141362.D	11/16/2015	22:54
TMW15102015	280-76532-6	K141363.D	11/16/2015	23:22
DTW15102015	280-76532-7	K141364.D	11/16/2015	23:50

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

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Sample No.: ICIS 280-304153/3 Date Analyzed: 11/12/2015 12:40
 Instrument ID: SMS_K GC Column: Vf-5MS (30.25) ID: 0.25 (mm)
 Lab File ID (Standard): K141243.D Heated Purge: (Y/N) N
 Calibration ID: 24426

	DCB		NPT		ANT		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	333846	4.75	1195698	5.96	660741	7.72	
UPPER LIMIT	667692	5.25	2391396	6.46	1321482	8.22	
LOWER LIMIT	166923	4.25	597849	5.46	330371	7.22	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-304153/11		278652	4.75	1006573	5.96	555521	7.71
ICV 280-304153/12		298198	4.75	1084098	5.96	640775	7.71
ICV 280-304153/13		393570	4.75	1459161	5.96	881728	7.71
CCV 280-304326/3		262160	4.74	951196	5.96	537454	7.71
MB 280-304110/1-A		232250	4.74	875638	5.96	539949	7.71
LCS 280-304110/2-A		248193	4.74	930059	5.96	530662	7.71
280-76532-3	TMW38102015	244364	4.74	919345	5.96	555347	7.71
280-76532-4	MW23102015	239826	4.74	903718	5.96	541237	7.71
280-76532-4 MS	MW23102015MS MS	252930	4.74	932911	5.96	529066	7.71
280-76532-4 MSD	MW23102015MSD MSD	228349	4.74	852941	5.96	502711	7.71
280-76532-5	DMW23102015	250122	4.74	946032	5.96	566736	7.71
280-76532-6	TMW15102015	273491	4.74	1001181	5.96	588038	7.71
280-76532-7	DTW15102015	259607	4.74	980271	5.96	589225	7.71

DCB = 1,4-Dichlorobenzene-d4
 NPT = Naphthalene-d8
 ANT = Acenaphthene-d10

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
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Sample No.: ICIS 280-304153/3 Date Analyzed: 11/12/2015 12:40
 Instrument ID: SMS_K GC Column: Vf-5MS (30.25) ID: 0.25 (mm)
 Lab File ID (Standard): K141243.D Heated Purge: (Y/N) N
 Calibration ID: 24426

	PHN		CRY		PRY		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	1023879	9.22	880913	13.44	807442	17.47	
UPPER LIMIT	2047758	9.72	1761826	13.94	1614884	17.97	
LOWER LIMIT	511940	8.72	440457	12.94	403721	16.97	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-304153/11	867453	9.22	777232	13.43	701054	17.46	
ICV 280-304153/12	1028352	9.22	835739	13.42	723690	17.45	
ICV 280-304153/13	1395685	9.22	1266796	13.42	1085333	17.45	
CCV 280-304326/3	828426	9.22	705701	13.42	614870	17.45	
MB 280-304110/1-A	885280	9.21	696618	13.41	569553	17.44	
LCS 280-304110/2-A	829004	9.21	692774	13.42	616287	17.44	
280-76532-3	TMW38102015	911692	9.21	755537	13.41	669552	17.44
280-76532-4	MW23102015	887631	9.21	731368	13.41	636305	17.44
280-76532-4 MS	MW23102015MS MS	848228	9.21	741649	13.41	648803	17.44
280-76532-4 MSD	MW23102015MSD MSD	815636	9.21	722732	13.41	626394	17.44
280-76532-5	DMW23102015	915600	9.21	746130	13.41	651029	17.44
280-76532-6	TMW15102015	955683	9.21	752498	13.41	635587	17.44
280-76532-7	DTW15102015	944663	9.21	743067	13.41	635301	17.44

PHN = Phenanthrene-d10
 CRY = Chrysene-d12
 PRY = Perylene-d12

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 I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: TMW38102015 Lab Sample ID: 280-76532-3
 Matrix: Water Lab File ID: K141358.D
 Analysis Method: 8270D Date Collected: 11/06/2015 10:00
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 969.9(mL) Date Analyzed: 11/16/2015 21:03
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 0.5(uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.6	U	5.2	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	90		42-131
321-60-8	2-Fluorobiphenyl	83		48-120
367-12-4	2-Fluorophenol (Surr)	86		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	87		42-120
4165-62-2	Phenol-d5 (Surr)	89		45-124
1718-51-0	Terphenyl-d14 (Surr)	65		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141358.D
 Lims ID: 280-76532-C-3-A Lab Sample ID: 280-76532-3
 Client ID: TMW38102015
 Sample Type: Client
 Inject. Date: 16-Nov-2015 21:03:30 ALS Bottle#: 13 Worklist Smp#: 16
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-C-3-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 13:07:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	244364	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	99	919345	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	555347	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	911692	40.0	
* 5 Chrysene-d12	240	13.407	13.419	-0.012	98	755537	40.0	
* 6 Perylene-d12	264	17.438	17.449	-0.011	98	669552	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	94	708258	85.7	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	912098	89.0	
\$ 9 Nitrobenzene-d5	82	5.246	5.252	-0.006	92	764930	87.0	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1518883	82.9	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	92	167217	90.0	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	100	1129025	65.1	
13 1,4-Dioxane	88		2.337				ND	
14 N-Nitrosodimethylamine	74		2.537				ND	
15 Pyridine	79		2.584				ND	
16 2-Picoline	93		2.678				ND	
17 N-Nitrosomethylethylamine	88		2.755				ND	
18 Methyl methanesulfonate	80		3.013				ND	
19 N-Nitrosodiethylamine	102		3.377				ND	
20 Pentachlorophenol_T	266		3.872				ND	
21 Ethyl methanesulfonate	79		3.636				ND	
22 Phenol	94		4.376				ND	
23 Aniline	93		4.435				ND	
24 Bis(2-chloroethyl)ether	93		4.470				ND	
25 Pentachloroethane	117		4.118				ND	
26 2-Chlorophenol	128		4.553				ND	
27 1,3-Dichlorobenzene	146		4.699				ND	
28 1,4-Dichlorobenzene	146		4.758				ND	
29 Benzyl alcohol	108		4.846				ND	
30 2-Methylphenol	108		4.940				ND	
31 1,2-Dichlorobenzene	146		4.905				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.976				ND	
33 Benzidine_T	184		4.959				ND	
34 N-Nitrosopyrrolidine	100		4.711				ND	
35 3-Methylphenol	108	5.082	5.081	0.001	90	1911	0.2462	
36 3 & 4 Methylphenol	108	5.082	5.081	0.001	85	1911	0.2462	
37 4-Methylphenol	108	5.082	5.081	0.001	81	1911	0.2462	
38 N-Nitrosomorpholine	116		4.746				ND	
39 N-Nitrosodi-n-propylamine	70		5.093				ND	
40 Acetophenone	105		5.105				ND	
41 2-Toluidine	106		4.782				ND	
42 Benzaldehyde	106		4.071				ND	
43 Hexachloroethane	117		5.234				ND	
44 Nitrobenzene	77		5.269				ND	
45 N-Nitrosopiperidine	114		5.046				ND	
46 Isophorone	82		5.493				ND	
47 2-Nitrophenol	139		5.581				ND	
48 2,4-Dimethylphenol	107		5.593				ND	
49 o,o',o"-Triethylphosphoro	198		5.322				ND	
50 Bis(2-chloroethoxy)methane	93		5.687				ND	
51 Benzoic acid	105		5.704				ND	
52 alpha,alpha-Dimethyl phene	58		5.487				ND	
53 2,4-Dichlorophenol	162		5.810				ND	
54 1,2,4-Trichlorobenzene	180		5.904				ND	
55 Naphthalene	128		5.980				ND	
56 4-Chloroaniline	127		6.016				ND	
57 2,6-Dichlorophenol	162		6.033				ND	
58 Hexachloropropene	213		5.716				ND	
59 Hexachlorobutadiene	225		6.104				ND	
60 Caprolactam	55		6.345				ND	
61 N-Nitrosodi-n-butylamine	84		5.997				ND	
62 p-Phenylene diamine	108	5.957	5.998	-0.041	54	82589	NC	
63 4-Chloro-3-methylphenol	107		6.480				ND	
64 Safrole, Total	162		6.209				ND	
65 2-Methylnaphthalene	142		6.662				ND	
66 1-Methylnaphthalene	142		6.768				ND	
67 Hexachlorocyclopentadiene	237		6.832				ND	
68 1,2,4,5-Tetrachlorobenzene	216		6.838				ND	
69 Isosafrole Peak 1	162		6.497				ND	
70 2-Chloronaphthalene	162		7.155				ND	
71 2,4,6-Trichlorophenol	196		6.938				ND	
72 2,4,5-Trichlorophenol	196		6.973				ND	
73 Isosafrole Peak 2	104		6.721				ND	
74 1,1'-Biphenyl	154		7.126				ND	
75 1-Chloronaphthalene	162		6.809				ND	
76 2-Nitroaniline	65		7.238				ND	
77 1,4-Naphthoquinone	158	7.020	6.944	0.076	44	2753	NC	
78 1,4-Dinitrobenzene	168		6.997				ND	
79 Dimethyl phthalate	163		7.414				ND	
80 2,6-Dinitrotoluene	165		7.473				ND	
81 1,3-Dinitrobenzene	168		7.443				ND	
82 Acenaphthylene	152		7.573				ND	
83 3-Nitroaniline	138		7.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.749				ND	
85 2,4-Dinitrophenol	184		7.755				ND	
86 4-Nitrophenol	109		7.808				ND	
87 Pentachlorobenzene	250		7.514				ND	
88 2,4-Dinitrotoluene	165		7.884				ND	
89 Dibenzofuran	168		7.919				ND	
90 1-Naphthylamine	143		7.766				ND	
91 2,3,4,6-Tetrachlorophenol	232		8.037				ND	
92 2-Naphthylamine	143		7.766				ND	
93 Diethyl phthalate	149		8.119				ND	
94 Thionazin	97		7.837				ND	
95 4-Chlorophenyl phenyl ethe	204		8.248				ND	
96 N-Nitro-o-toluidine	152		7.884				ND	
97 Fluorene	166		8.266				ND	
98 4-Nitroaniline	138		8.272				ND	
99 4,6-Dinitro-2-methylphenol	198		8.301				ND	
100 N-Nitrosodiphenylamine	169		8.366				ND	
101 Diphenylamine	169		7.990				ND	
102 1,2-Diphenylhydrazine	77		8.413				ND	
103 Azobenzene	77		8.413				ND	
104 Sulfotepp	97		8.148				ND	
105 1,3,5-Trinitrobenzene	213		8.236				ND	
106 Diallate Peak 1	86		8.283				ND	
107 Phenacetin	108		8.295				ND	
108 Phorate	121		8.289				ND	
109 4-Bromophenyl phenyl ether	248		8.748				ND	
110 Diallate Peak 2	86		8.372				ND	
111 Dimethoate	87		8.448				ND	
112 Hexachlorobenzene	284		8.836				ND	
113 4-Aminobiphenyl	169	8.501	8.624	-0.123	62	7247	NC	
114 Pentachlorophenol	266		9.024				ND	
115 Pentachloronitrobenzene	237		8.654				ND	
116 Pronamide	173	8.507	8.689	-0.182	60	3618	NC	
117 Disulfoton	88		8.812				ND	
118 Dinoseb	211		8.818				ND	
119 Phenanthrene	178		9.241				ND	
120 Anthracene	178		9.294				ND	
121 Carbazole	167		9.441				ND	
122 Methyl parathion	109		9.182				ND	
123 Di-n-butyl phthalate	149		9.788				ND	
124 Ethyl Parathion	109		9.582				ND	
125 4-Nitroquinoline-1-oxide	190		9.611				ND	
126 Methapyrilene	97		9.435				ND	
127 Isodrin	193		9.940				ND	
128 Fluoranthene	202		10.651				ND	
129 Pyrene	202		10.998				ND	
130 Aramite Peak 1	185		10.604				ND	
131 Aramite Peak 2	185		10.722				ND	
132 p-Dimethylamino azobenzene	120		10.851				ND	
133 Chlorobenzilate	251		10.933				ND	
134 Famphur	218		12.020				ND	
135 3,3'-Dimethylbenzidine	212	11.227	11.415	-0.188	85	84031	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149		12.150				ND	
137 2-Acetylaminofluorene	181		11.897				ND	
138 4,4'-Methylene bis(2-chlor	231		12.520				ND	
139 3,3'-Dichlorobenzidine	252		13.348				ND	
140 Benzo[a]anthracene	228		13.395				ND	
141 Chrysene	228		13.483				ND	
142 Bis(2-ethylhexyl) phthalat	149		13.560				ND	
143 Di-n-octyl phthalate	149		15.411				ND	
144 7,12-Dimethylbenz(a)anthra	256		15.234				ND	
145 Benzo[b]fluoranthene	252		16.339				ND	
146 Benzo[k]fluoranthene	252		16.415				ND	
147 Benzo[a]pyrene	252		17.285				ND	
148 3-Methylcholanthrene	268		17.156				ND	
149 Dibenz[a,j]acridine	279		18.830				ND	
150 Indeno[1,2,3-cd]pyrene	276		20.628				ND	
151 Dibenz(a,h)anthracene	278		20.716				ND	
152 Benzo[g,h,i]perylene	276		21.374				ND	
153 Benzidine	184		10.428				ND	
S 160 Aramite, Total	185		15.047				ND	
S 161 Diallate	86		15.047				ND	
S 162 Isosafrole	162		15.047				ND	
154 Hexachlorophene	196		0.000				ND	
155 Tetraethyl Pyrophosphate (	1		0.000				ND	
157 4,4'-DDE	246		5.094				ND	
158 4,4'-DDD	235		5.394				ND	
159 4,4'-DDT	235		5.623				ND	
S 163 Total Cresols	1		0.000				ND	
S 164 Methyl Phenols, Total	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141358.D

Injection Date: 16-Nov-2015 21:03:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-C-3-A

Lab Sample ID: 280-76532-3

Worklist Smp#: 16

Client ID: TMW38102015

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

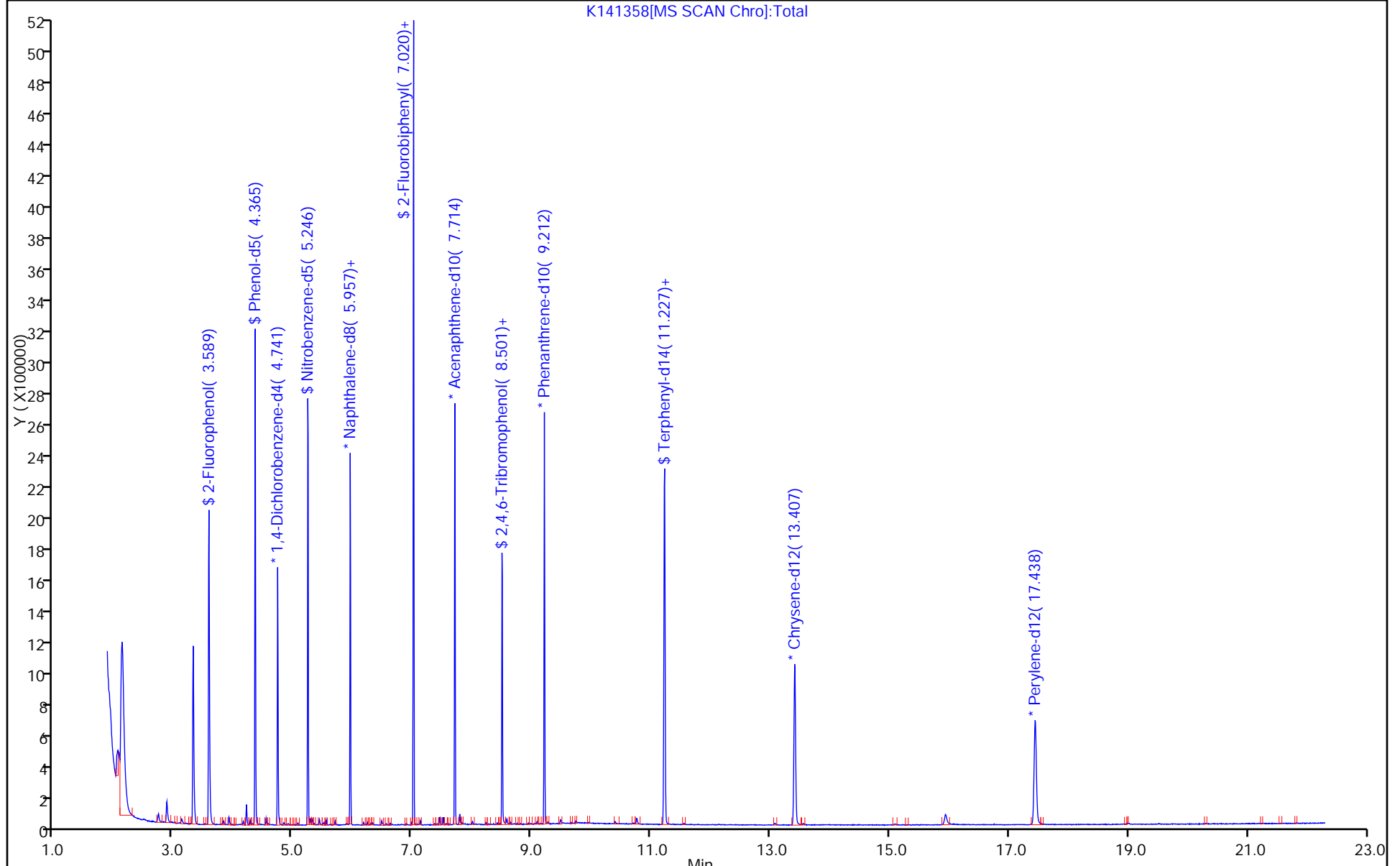
ALS Bottle#: 13

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: MW23102015 Lab Sample ID: 280-76532-4
 Matrix: Water Lab File ID: K141359.D
 Analysis Method: 8270D Date Collected: 11/06/2015 08:35
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 987.9(mL) Date Analyzed: 11/16/2015 21:31
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 0.5(uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.1	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	93		42-131
321-60-8	2-Fluorobiphenyl	84		48-120
367-12-4	2-Fluorophenol (Surr)	86		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	88		42-120
4165-62-2	Phenol-d5 (Surr)	89		45-124
1718-51-0	Terphenyl-d14 (Surr)	58		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141359.D
 Lims ID: 280-76532-E-4-A Lab Sample ID: 280-76532-4
 Client ID: MW23102015
 Sample Type: Client
 Inject. Date: 16-Nov-2015 21:31:30 ALS Bottle#: 14 Worklist Smp#: 17
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-E-4-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera Date: 17-Nov-2015 13:11:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	239826	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	100	903718	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	541237	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	887631	40.0	
* 5 Chrysene-d12	240	13.407	13.419	-0.012	98	731368	40.0	
* 6 Perylene-d12	264	17.438	17.449	-0.011	98	636305	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	94	697861	86.0	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	890722	88.6	
\$ 9 Nitrobenzene-d5	82	5.246	5.252	-0.006	92	761325	88.1	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1507695	84.5	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	93	168999	93.4	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	982010	58.4	
13 1,4-Dioxane	88		2.337				ND	
14 N-Nitrosodimethylamine	74		2.537				ND	
15 Pyridine	79		2.584				ND	
16 2-Picoline	93		2.678				ND	
17 N-Nitrosomethylethylamine	88		2.755				ND	
18 Methyl methanesulfonate	80		3.013				ND	
19 N-Nitrosodiethylamine	102		3.377				ND	
20 Pentachlorophenol_T	266		3.872				ND	
21 Ethyl methanesulfonate	79		3.636				ND	
22 Phenol	94		4.376				ND	
23 Aniline	93		4.435				ND	
24 Bis(2-chloroethyl)ether	93		4.470				ND	
25 Pentachloroethane	117		4.118				ND	
26 2-Chlorophenol	128		4.553				ND	
27 1,3-Dichlorobenzene	146		4.699				ND	
28 1,4-Dichlorobenzene	146		4.758				ND	
29 Benzyl alcohol	108	4.841	4.846	-0.005	92	2556	0.4724	
30 2-Methylphenol	108		4.940				ND	
31 1,2-Dichlorobenzene	146		4.905				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.976				ND	
33 Benzidine_T	184		4.959				ND	
34 N-Nitrosopyrrolidine	100		4.711				ND	
35 3-Methylphenol	108		5.081				ND	
36 3 & 4 Methylphenol	108		5.081				ND	
37 4-Methylphenol	108		5.081				ND	
38 N-Nitrosomorpholine	116		4.746				ND	
39 N-Nitrosodi-n-propylamine	70		5.093				ND	
40 Acetophenone	105		5.105				ND	
41 2-Toluidine	106		4.782				ND	
42 Benzaldehyde	106		4.071				ND	
43 Hexachloroethane	117		5.234				ND	
44 Nitrobenzene	77		5.269				ND	
45 N-Nitrosopiperidine	114		5.046				ND	
46 Isophorone	82		5.493				ND	
47 2-Nitrophenol	139		5.581				ND	
48 2,4-Dimethylphenol	107		5.593				ND	
49 o,o',o"-Triethylphosphoro	198		5.322				ND	
50 Bis(2-chloroethoxy)methane	93		5.687				ND	
51 Benzoic acid	105		5.704				ND	
52 alpha,alpha-Dimethyl phene	58		5.487				ND	
53 2,4-Dichlorophenol	162		5.810				ND	
54 1,2,4-Trichlorobenzene	180		5.904				ND	
55 Naphthalene	128		5.980				ND	
56 4-Chloroaniline	127		6.016				ND	
57 2,6-Dichlorophenol	162		6.033				ND	
58 Hexachloropropene	213		5.716				ND	
59 Hexachlorobutadiene	225		6.104				ND	
60 Caprolactam	55		6.345				ND	
61 N-Nitrosodi-n-butylamine	84		5.997				ND	
62 p-Phenylene diamine	108	5.957	5.998	-0.041	48	87724	NC	
63 4-Chloro-3-methylphenol	107		6.480				ND	
64 Safrole, Total	162		6.209				ND	
65 2-Methylnaphthalene	142		6.662				ND	
66 1-Methylnaphthalene	142		6.768				ND	
67 Hexachlorocyclopentadiene	237		6.832				ND	
68 1,2,4,5-Tetrachlorobenzene	216		6.838				ND	
69 Isosafrole Peak 1	162		6.497				ND	
70 2-Chloronaphthalene	162		7.155				ND	
71 2,4,6-Trichlorophenol	196		6.938				ND	
72 2,4,5-Trichlorophenol	196		6.973				ND	
73 Isosafrole Peak 2	104		6.721				ND	
74 1,1'-Biphenyl	154		7.126				ND	
75 1-Chloronaphthalene	162		6.809				ND	
76 2-Nitroaniline	65		7.238				ND	
77 1,4-Naphthoquinone	158	7.020	6.944	0.076	44	2822	NC	
78 1,4-Dinitrobenzene	168		6.997				ND	
79 Dimethyl phthalate	163		7.414				ND	
80 2,6-Dinitrotoluene	165		7.473				ND	
81 1,3-Dinitrobenzene	168		7.443				ND	
82 Acenaphthylene	152		7.573				ND	
83 3-Nitroaniline	138		7.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.749				ND	
85 2,4-Dinitrophenol	184		7.755				ND	
86 4-Nitrophenol	109		7.808				ND	
87 Pentachlorobenzene	250		7.514				ND	
88 2,4-Dinitrotoluene	165		7.884				ND	
89 Dibenzofuran	168		7.919				ND	
90 1-Naphthylamine	143		7.766				ND	
91 2,3,4,6-Tetrachlorophenol	232		8.037				ND	
92 2-Naphthylamine	143		7.766				ND	
93 Diethyl phthalate	149		8.119				ND	
94 Thionazin	97		7.837				ND	
95 4-Chlorophenyl phenyl ethe	204		8.248				ND	
96 N-Nitro-o-toluidine	152		7.884				ND	
97 Fluorene	166		8.266				ND	
98 4-Nitroaniline	138		8.272				ND	
99 4,6-Dinitro-2-methylphenol	198		8.301				ND	
100 N-Nitrosodiphenylamine	169		8.366				ND	
101 Diphenylamine	169		7.990				ND	
102 1,2-Diphenylhydrazine	77		8.413				ND	
103 Azobenzene	77		8.413				ND	
104 Sulfotepp	97		8.148				ND	
105 1,3,5-Trinitrobenzene	213		8.236				ND	
106 Diallate Peak 1	86	8.225	8.283	-0.058	50	551		NC
107 Phenacetin	108		8.295				ND	
108 Phorate	121		8.289				ND	
109 4-Bromophenyl phenyl ether	248		8.748				ND	
110 Diallate Peak 2	86		8.372				ND	
111 Dimethoate	87		8.448				ND	
112 Hexachlorobenzene	284		8.836				ND	
113 4-Aminobiphenyl	169		8.624				ND	
114 Pentachlorophenol	266		9.024				ND	
115 Pentachloronitrobenzene	237		8.654				ND	
116 Pronamide	173	8.501	8.689	-0.188	57	3926		NC
117 Disulfoton	88		8.812				ND	
118 Dinoseb	211		8.818				ND	
119 Phenanthrene	178		9.241				ND	
120 Anthracene	178		9.294				ND	
121 Carbazole	167		9.441				ND	
122 Methyl parathion	109		9.182				ND	
123 Di-n-butyl phthalate	149		9.788				ND	
124 Ethyl Parathion	109	9.741	9.582	0.159	53	668		NC
125 4-Nitroquinoline-1-oxide	190		9.611				ND	
126 Methapyrilene	97		9.435				ND	
127 Isodrin	193		9.940				ND	
128 Fluoranthene	202		10.651				ND	
129 Pyrene	202		10.998				ND	
130 Aramite Peak 1	185		10.604				ND	
131 Aramite Peak 2	185		10.722				ND	
132 p-Dimethylamino azobenzene	120		10.851				ND	
133 Chlorobenzilate	251		10.933				ND	
134 Famphur	218		12.020				ND	
135 3,3'-Dimethylbenzidine	212	11.227	11.415	-0.188	56	74751		NC

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149		12.150				ND	
137 2-Acetylaminofluorene	181		11.897				ND	
138 4,4'-Methylene bis(2-chlor	231		12.520				ND	
139 3,3'-Dichlorobenzidine	252		13.348				ND	
140 Benzo[a]anthracene	228		13.395				ND	
141 Chrysene	228		13.483				ND	
142 Bis(2-ethylhexyl) phthalat	149	13.554	13.560	-0.006	94	8127	0.6181	
143 Di-n-octyl phthalate	149		15.411				ND	
144 7,12-Dimethylbenz(a)anthra	256		15.234				ND	
145 Benzo[b]fluoranthene	252		16.339				ND	
146 Benzo[k]fluoranthene	252		16.415				ND	
147 Benzo[a]pyrene	252		17.285				ND	
148 3-Methylcholanthrene	268		17.156				ND	
149 Dibenz[a,j]acridine	279		18.830				ND	
150 Indeno[1,2,3-cd]pyrene	276		20.628				ND	
151 Dibenz(a,h)anthracene	278		20.716				ND	
152 Benzo[g,h,i]perylene	276		21.374				ND	
153 Benzidine	184		10.428				ND	
S 160 Aramite, Total	185		15.047				ND	
S 161 Diallate	86		15.047				ND	
S 162 Isosafrole	162		15.047				ND	
154 Hexachlorophene	196		0.000				ND	
155 Tetraethyl Pyrophosphate (	1		0.000				ND	
157 4,4'-DDE	246		5.094				ND	
158 4,4'-DDD	235		5.394				ND	
159 4,4'-DDT	235		5.623				ND	
S 163 Total Cresols	1		0.000				ND	
S 164 Methyl Phenols, Total	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141359.D

Injection Date: 16-Nov-2015 21:31:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-E-4-A

Lab Sample ID: 280-76532-4

Worklist Smp#: 17

Client ID: MW23102015

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

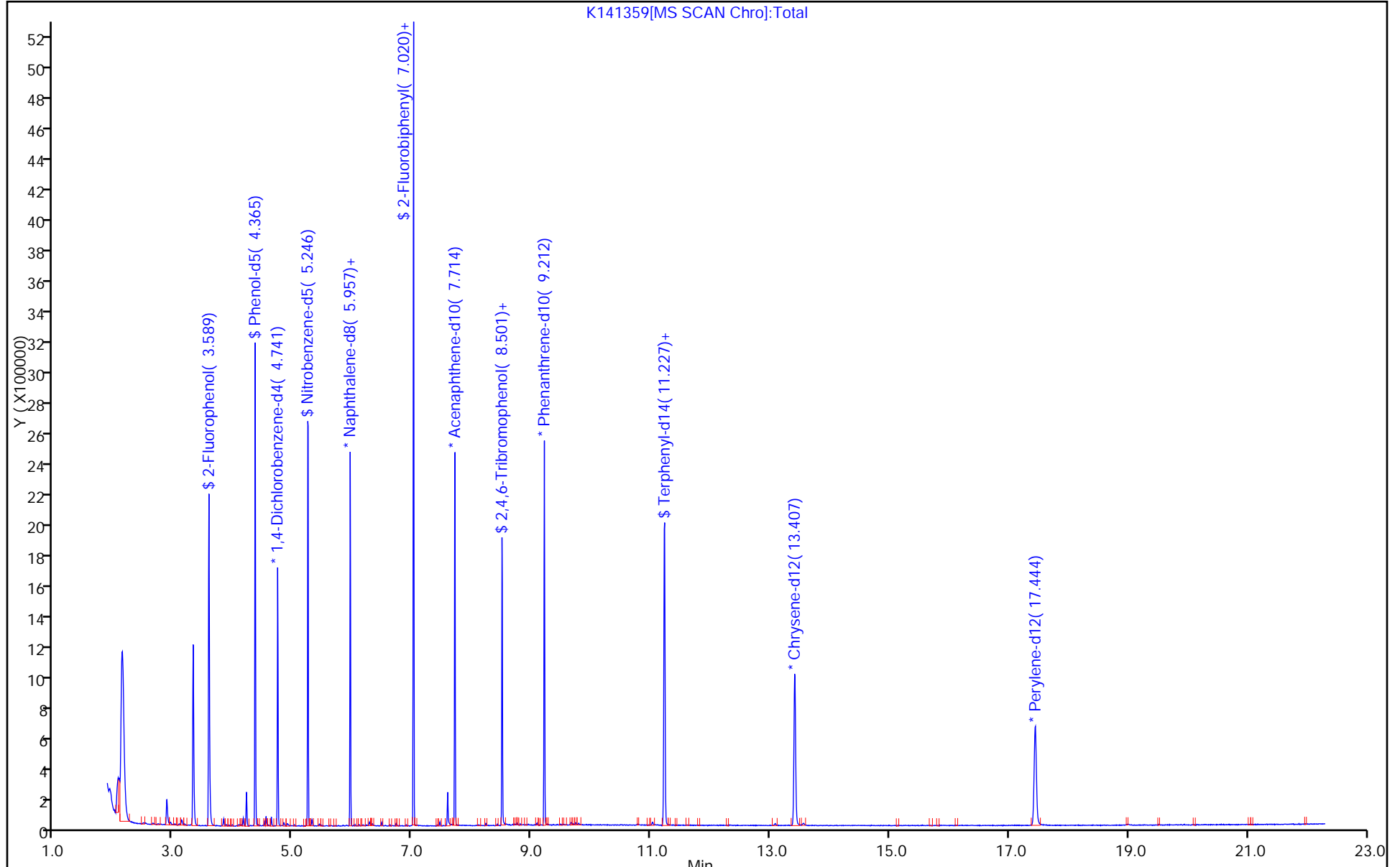
ALS Bottle#: 14

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: DMW23102015 Lab Sample ID: 280-76532-5
 Matrix: Water Lab File ID: K141362.D
 Analysis Method: 8270D Date Collected: 11/06/2015 08:35
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 973 (mL) Date Analyzed: 11/16/2015 22:54
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 0.5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.6	U	5.1	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	90		42-131
321-60-8	2-Fluorobiphenyl	80		48-120
367-12-4	2-Fluorophenol (Surr)	84		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	84		42-120
4165-62-2	Phenol-d5 (Surr)	86		45-124
1718-51-0	Terphenyl-d14 (Surr)	55		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141362.D
 Lims ID: 280-76532-C-5-A Lab Sample ID: 280-76532-5
 Client ID: DMW23102015
 Sample Type: Client
 Inject. Date: 16-Nov-2015 22:54:30 ALS Bottle#: 17 Worklist Smp#: 20
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-C-5-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 13:36:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	250122	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	100	946032	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	566736	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	915600	40.0	
* 5 Chrysene-d12	240	13.413	13.419	-0.006	98	746130	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	651029	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	94	709504	83.8	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	898495	85.7	
\$ 9 Nitrobenzene-d5	82	5.246	5.252	-0.006	92	763866	84.4	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	99	1496266	80.1	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	93	170708	90.1	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	936616	54.6	
13 1,4-Dioxane	88		2.337				ND	
14 N-Nitrosodimethylamine	74		2.537				ND	
15 Pyridine	79		2.584				ND	
16 2-Picoline	93		2.678				ND	
17 N-Nitrosomethylethylamine	88		2.755				ND	
18 Methyl methanesulfonate	80		3.013				ND	
19 N-Nitrosodiethylamine	102		3.377				ND	
20 Pentachlorophenol_T	266		3.872				ND	
21 Ethyl methanesulfonate	79		3.636				ND	
22 Phenol	94		4.376				ND	
23 Aniline	93		4.435				ND	
24 Bis(2-chloroethyl)ether	93		4.470				ND	
25 Pentachloroethane	117		4.118				ND	
26 2-Chlorophenol	128		4.553				ND	
27 1,3-Dichlorobenzene	146		4.699				ND	
28 1,4-Dichlorobenzene	146		4.758				ND	
29 Benzyl alcohol	108	4.846	4.846	0.000	88	1763	0.3124	
30 2-Methylphenol	108		4.940				ND	
31 1,2-Dichlorobenzene	146		4.905				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.976				ND	
33 Benzidine_T	184		4.959				ND	
34 N-Nitrosopyrrolidine	100		4.711				ND	
35 3-Methylphenol	108		5.081				ND	
36 3 & 4 Methylphenol	108		5.081				ND	
37 4-Methylphenol	108		5.081				ND	
38 N-Nitrosomorpholine	116		4.746				ND	
39 N-Nitrosodi-n-propylamine	70		5.093				ND	
40 Acetophenone	105		5.105				ND	
41 2-Toluidine	106		4.782				ND	
42 Benzaldehyde	106		4.071				ND	
43 Hexachloroethane	117		5.234				ND	
44 Nitrobenzene	77		5.269				ND	
45 N-Nitrosopiperidine	114		5.046				ND	
46 Isophorone	82		5.493				ND	
47 2-Nitrophenol	139		5.581				ND	
48 2,4-Dimethylphenol	107		5.593				ND	
49 o,o',o"-Triethylphosphoro	198		5.322				ND	
50 Bis(2-chloroethoxy)methane	93		5.687				ND	
51 Benzoic acid	105	5.610	5.704	-0.094	50	1597	10.6	
52 alpha,alpha-Dimethyl phene	58		5.487				ND	
53 2,4-Dichlorophenol	162		5.810				ND	
54 1,2,4-Trichlorobenzene	180		5.904				ND	
55 Naphthalene	128		5.980				ND	
56 4-Chloroaniline	127		6.016				ND	
57 2,6-Dichlorophenol	162		6.033				ND	
58 Hexachloropropene	213		5.716				ND	
59 Hexachlorobutadiene	225		6.104				ND	
60 Caprolactam	55		6.345				ND	
61 N-Nitrosodi-n-butylamine	84		5.997				ND	
62 p-Phenylene diamine	108	5.957	5.998	-0.041	48	89395	NC	
63 4-Chloro-3-methylphenol	107		6.480				ND	
64 Safrole, Total	162		6.209				ND	
65 2-Methylnaphthalene	142		6.662				ND	
66 1-Methylnaphthalene	142		6.768				ND	
67 Hexachlorocyclopentadiene	237		6.832				ND	
68 1,2,4,5-Tetrachlorobenzene	216		6.838				ND	
69 Isosafrole Peak 1	162		6.497				ND	
70 2-Chloronaphthalene	162		7.155				ND	
71 2,4,6-Trichlorophenol	196		6.938				ND	
72 2,4,5-Trichlorophenol	196		6.973				ND	
73 Isosafrole Peak 2	104		6.721				ND	
74 1,1'-Biphenyl	154		7.126				ND	
75 1-Chloronaphthalene	162		6.809				ND	
76 2-Nitroaniline	65		7.238				ND	
77 1,4-Naphthoquinone	158	7.020	6.944	0.076	44	2692	NC	
78 1,4-Dinitrobenzene	168		6.997				ND	
79 Dimethyl phthalate	163		7.414				ND	
80 2,6-Dinitrotoluene	165		7.473				ND	
81 1,3-Dinitrobenzene	168		7.443				ND	
82 Acenaphthylene	152		7.573				ND	
83 3-Nitroaniline	138		7.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.749				ND	
85 2,4-Dinitrophenol	184		7.755				ND	
86 4-Nitrophenol	109		7.808				ND	
87 Pentachlorobenzene	250		7.514				ND	
88 2,4-Dinitrotoluene	165		7.884				ND	
89 Dibenzofuran	168		7.919				ND	
90 1-Naphthylamine	143		7.766				ND	
91 2,3,4,6-Tetrachlorophenol	232		8.037				ND	
92 2-Naphthylamine	143		7.766				ND	
93 Diethyl phthalate	149		8.119				ND	
94 Thionazin	97		7.837				ND	
95 4-Chlorophenyl phenyl ethe	204		8.248				ND	
96 N-Nitro-o-toluidine	152	7.743	7.884	-0.141	49	1224	NC	
97 Fluorene	166		8.266				ND	
98 4-Nitroaniline	138		8.272				ND	
99 4,6-Dinitro-2-methylphenol	198		8.301				ND	
100 N-Nitrosodiphenylamine	169		8.366				ND	
101 Diphenylamine	169		7.990				ND	
102 1,2-Diphenylhydrazine	77		8.413				ND	
103 Azobenzene	77		8.413				ND	
104 Sulfotepp	97		8.148				ND	
105 1,3,5-Trinitrobenzene	213		8.236				ND	
106 Diallate Peak 1	86	8.231	8.283	-0.052	50	712	NC	
107 Phenacetin	108		8.295				ND	
108 Phorate	121		8.289				ND	
109 4-Bromophenyl phenyl ether	248		8.748				ND	
110 Diallate Peak 2	86		8.372				ND	
111 Dimethoate	87		8.448				ND	
112 Hexachlorobenzene	284		8.836				ND	
113 4-Aminobiphenyl	169		8.624				ND	
114 Pentachlorophenol	266		9.024				ND	
115 Pentachloronitrobenzene	237		8.654				ND	
116 Pronamide	173	8.501	8.689	-0.188	56	3581	NC	
117 Disulfoton	88		8.812				ND	
118 Dinoseb	211		8.818				ND	
119 Phenanthrene	178		9.241				ND	
120 Anthracene	178		9.294				ND	
121 Carbazole	167		9.441				ND	
122 Methyl parathion	109		9.182				ND	
123 Di-n-butyl phthalate	149		9.788				ND	
124 Ethyl Parathion	109		9.582				ND	
125 4-Nitroquinoline-1-oxide	190		9.611				ND	
126 Methapyrilene	97		9.435				ND	
127 Isodrin	193		9.940				ND	
128 Fluoranthene	202		10.651				ND	
129 Pyrene	202		10.998				ND	
130 Aramite Peak 1	185		10.604				ND	
131 Aramite Peak 2	185		10.722				ND	
132 p-Dimethylamino azobenzene	120		10.851				ND	
133 Chlorobenzilate	251		10.933				ND	
134 Famphur	218		12.020				ND	
135 3,3'-Dimethylbenzidine	212	11.227	11.415	-0.188	56	71981	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149		12.150				ND	
137 2-Acetylaminofluorene	181		11.897				ND	
138 4,4'-Methylene bis(2-chlor	231		12.520				ND	
139 3,3'-Dichlorobenzidine	252		13.348				ND	
140 Benzo[a]anthracene	228		13.395				ND	
141 Chrysene	228		13.483				ND	
142 Bis(2-ethylhexyl) phthalat	149		13.560				ND	
143 Di-n-octyl phthalate	149		15.411				ND	
144 7,12-Dimethylbenz(a)anthra	256		15.234				ND	
145 Benzo[b]fluoranthene	252		16.339				ND	
146 Benzo[k]fluoranthene	252		16.415				ND	
147 Benzo[a]pyrene	252		17.285				ND	
148 3-Methylcholanthrene	268		17.156				ND	
149 Dibenz[a,j]acridine	279		18.830				ND	
150 Indeno[1,2,3-cd]pyrene	276		20.628				ND	
151 Dibenz(a,h)anthracene	278		20.716				ND	
152 Benzo[g,h,i]perylene	276		21.374				ND	
153 Benzidine	184		10.428				ND	
S 160 Aramite, Total	185		15.047				ND	
S 161 Diallate	86		15.047				ND	
S 162 Isosafrole	162		15.047				ND	
154 Hexachlorophene	196		0.000				ND	
155 Tetraethyl Pyrophosphate (	1		0.000				ND	
157 4,4'-DDE	246		5.094				ND	
158 4,4'-DDD	235		5.394				ND	
159 4,4'-DDT	235		5.623				ND	
S 163 Total Cresols	1		0.000				ND	
S 164 Methyl Phenols, Total	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141362.D

Injection Date: 16-Nov-2015 22:54:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-C-5-A

Lab Sample ID: 280-76532-5

Worklist Smp#: 20

Client ID: DMW23102015

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

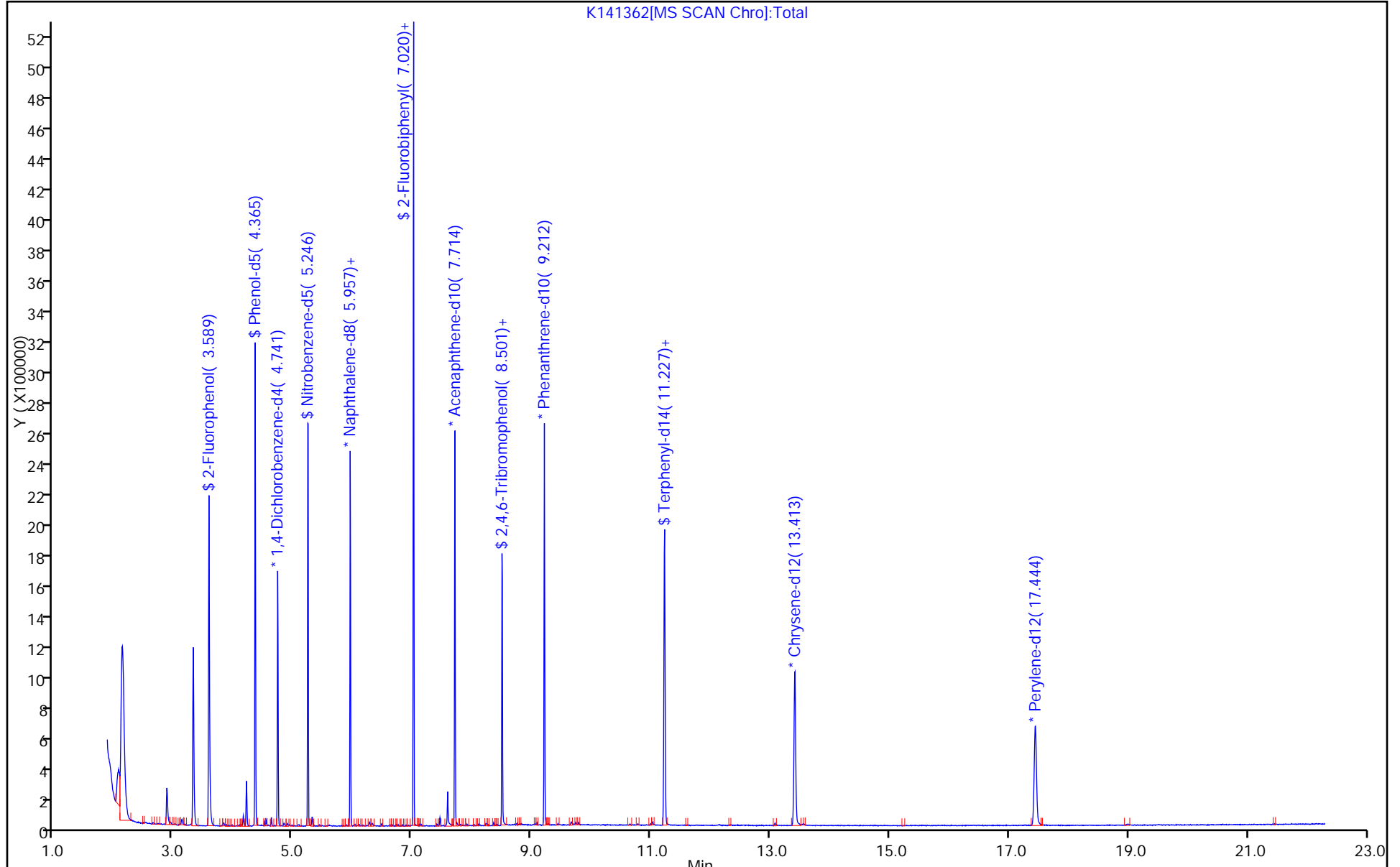
ALS Bottle#: 17

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: TMW15102015 Lab Sample ID: 280-76532-6
 Matrix: Water Lab File ID: K141363.D
 Analysis Method: 8270D Date Collected: 11/06/2015 09:05
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 1011.5 (mL) Date Analyzed: 11/16/2015 23:22
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 0.5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	4.9	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	87		42-131
321-60-8	2-Fluorobiphenyl	80		48-120
367-12-4	2-Fluorophenol (Surr)	72		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	83		42-120
4165-62-2	Phenol-d5 (Surr)	78		45-124
1718-51-0	Terphenyl-d14 (Surr)	85		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141363.D
 Lims ID: 280-76532-B-6-A Lab Sample ID: 280-76532-6
 Client ID: TMW15102015
 Sample Type: Client
 Inject. Date: 16-Nov-2015 23:22:30 ALS Bottle#: 18 Worklist Smp#: 21
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-B-6-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 13:37:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	97	273491	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	99	1001181	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	588038	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	955683	40.0	
* 5 Chrysene-d12	240	13.407	13.419	-0.012	98	752498	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	635587	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	93	662125	71.6	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	893047	77.9	
\$ 9 Nitrobenzene-d5	82	5.246	5.252	-0.006	93	791239	82.6	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1558959	80.4	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	93	171795	87.4	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	1471747	85.1	
13 1,4-Dioxane	88		2.337				ND	
14 N-Nitrosodimethylamine	74		2.537				ND	
15 Pyridine	79		2.584				ND	
16 2-Picoline	93		2.678				ND	
17 N-Nitrosomethylethylamine	88		2.755				ND	
18 Methyl methanesulfonate	80		3.013				ND	
19 N-Nitrosodiethylamine	102		3.377				ND	
20 Pentachlorophenol_T	266		3.872				ND	
21 Ethyl methanesulfonate	79		3.636				ND	
22 Phenol	94		4.376				ND	
23 Aniline	93		4.435				ND	
24 Bis(2-chloroethyl)ether	93		4.470				ND	
25 Pentachloroethane	117		4.118				ND	
26 2-Chlorophenol	128		4.553				ND	
27 1,3-Dichlorobenzene	146		4.699				ND	
28 1,4-Dichlorobenzene	146		4.758				ND	
29 Benzyl alcohol	108		4.846				ND	
30 2-Methylphenol	108		4.940				ND	
31 1,2-Dichlorobenzene	146		4.905				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.976				ND	
33 Benzidine_T	184		4.959				ND	
34 N-Nitrosopyrrolidine	100		4.711				ND	
35 3-Methylphenol	108		5.081				ND	
36 3 & 4 Methylphenol	108		5.081				ND	
37 4-Methylphenol	108		5.081				ND	
38 N-Nitrosomorpholine	116		4.746				ND	
39 N-Nitrosodi-n-propylamine	70		5.093				ND	
40 Acetophenone	105		5.105				ND	
41 2-Toluidine	106		4.782				ND	
42 Benzaldehyde	106		4.071				ND	
43 Hexachloroethane	117		5.234				ND	
44 Nitrobenzene	77		5.269				ND	
45 N-Nitrosopiperidine	114		5.046				ND	
46 Isophorone	82		5.493				ND	
47 2-Nitrophenol	139		5.581				ND	
48 2,4-Dimethylphenol	107		5.593				ND	
49 o,o',o"-Triethylphosphoro	198		5.322				ND	
50 Bis(2-chloroethoxy)methane	93		5.687				ND	
51 Benzoic acid	105		5.704				ND	
52 alpha,alpha-Dimethyl phene	58		5.487				ND	
53 2,4-Dichlorophenol	162		5.810				ND	
54 1,2,4-Trichlorobenzene	180		5.904				ND	
55 Naphthalene	128		5.980				ND	
56 4-Chloroaniline	127		6.016				ND	
57 2,6-Dichlorophenol	162		6.033				ND	
58 Hexachloropropene	213		5.716				ND	
59 Hexachlorobutadiene	225		6.104				ND	
60 Caprolactam	55		6.345				ND	
61 N-Nitrosodi-n-butylamine	84		5.997				ND	
62 p-Phenylene diamine	108	5.957	5.998	-0.041	48	93663	NC	
63 4-Chloro-3-methylphenol	107		6.480				ND	
64 Safrole, Total	162		6.209				ND	
65 2-Methylnaphthalene	142		6.662				ND	
66 1-Methylnaphthalene	142		6.768				ND	
67 Hexachlorocyclopentadiene	237		6.832				ND	
68 1,2,4,5-Tetrachlorobenzene	216		6.838				ND	
69 Isosafrole Peak 1	162		6.497				ND	
70 2-Chloronaphthalene	162		7.155				ND	
71 2,4,6-Trichlorophenol	196		6.938				ND	
72 2,4,5-Trichlorophenol	196		6.973				ND	
73 Isosafrole Peak 2	104		6.721				ND	
74 1,1'-Biphenyl	154		7.126				ND	
75 1-Chloronaphthalene	162		6.809				ND	
76 2-Nitroaniline	65		7.238				ND	
77 1,4-Naphthoquinone	158	7.020	6.944	0.076	44	2683	NC	
78 1,4-Dinitrobenzene	168		6.997				ND	
79 Dimethyl phthalate	163		7.414				ND	
80 2,6-Dinitrotoluene	165		7.473				ND	
81 1,3-Dinitrobenzene	168		7.443				ND	
82 Acenaphthylene	152		7.573				ND	
83 3-Nitroaniline	138		7.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.749				ND	
85 2,4-Dinitrophenol	184		7.755				ND	
86 4-Nitrophenol	109		7.808				ND	
87 Pentachlorobenzene	250		7.514				ND	
88 2,4-Dinitrotoluene	165		7.884				ND	
89 Dibenzofuran	168		7.919				ND	
90 1-Naphthylamine	143		7.766				ND	
91 2,3,4,6-Tetrachlorophenol	232		8.037				ND	
92 2-Naphthylamine	143		7.766				ND	
93 Diethyl phthalate	149		8.119				ND	
94 Thionazin	97		7.837				ND	
95 4-Chlorophenyl phenyl ethe	204		8.248				ND	
96 N-Nitro-o-toluidine	152		7.884				ND	
97 Fluorene	166		8.266				ND	
98 4-Nitroaniline	138		8.272				ND	
99 4,6-Dinitro-2-methylphenol	198		8.301				ND	
100 N-Nitrosodiphenylamine	169		8.366				ND	
101 Diphenylamine	169		7.990				ND	
102 1,2-Diphenylhydrazine	77		8.413				ND	
103 Azobenzene	77		8.413				ND	
104 Sulfotepp	97		8.148				ND	
105 1,3,5-Trinitrobenzene	213		8.236				ND	
106 Diallate Peak 1	86		8.283				ND	
107 Phenacetin	108		8.295				ND	
108 Phorate	121		8.289				ND	
109 4-Bromophenyl phenyl ether	248		8.748				ND	
110 Diallate Peak 2	86		8.372				ND	
111 Dimethoate	87		8.448				ND	
112 Hexachlorobenzene	284		8.836				ND	
113 4-Aminobiphenyl	169	8.501	8.624	-0.123	57	8020	NC	
114 Pentachlorophenol	266		9.024				ND	
115 Pentachloronitrobenzene	237		8.654				ND	
116 Pronamide	173	8.501	8.689	-0.188	56	3999	NC	
117 Disulfoton	88		8.812				ND	
118 Dinoseb	211		8.818				ND	
119 Phenanthrene	178		9.241				ND	
120 Anthracene	178		9.294				ND	
121 Carbazole	167		9.441				ND	
122 Methyl parathion	109		9.182				ND	
123 Di-n-butyl phthalate	149		9.788				ND	
124 Ethyl Parathion	109		9.582				ND	
125 4-Nitroquinoline-1-oxide	190		9.611				ND	
126 Methapyrilene	97		9.435				ND	
127 Isodrin	193		9.940				ND	
128 Fluoranthene	202		10.651				ND	
129 Pyrene	202		10.998				ND	
130 Aramite Peak 1	185		10.604				ND	
131 Aramite Peak 2	185		10.722				ND	
132 p-Dimethylamino azobenzene	120		10.851				ND	
133 Chlorobenzilate	251		10.933				ND	
134 Famphur	218		12.020				ND	
135 3,3'-Dimethylbenzidine	212	11.227	11.415	-0.188	56	110330	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149		12.150				ND	
137 2-Acetylaminofluorene	181		11.897				ND	
138 4,4'-Methylene bis(2-chlor	231		12.520				ND	
139 3,3'-Dichlorobenzidine	252		13.348				ND	
140 Benzo[a]anthracene	228		13.395				ND	
141 Chrysene	228		13.483				ND	
142 Bis(2-ethylhexyl) phthalat	149		13.560				ND	
143 Di-n-octyl phthalate	149		15.411				ND	
144 7,12-Dimethylbenz(a)anthra	256		15.234				ND	
145 Benzo[b]fluoranthene	252		16.339				ND	
146 Benzo[k]fluoranthene	252		16.415				ND	
147 Benzo[a]pyrene	252		17.285				ND	
148 3-Methylcholanthrene	268		17.156				ND	
149 Dibenz[a,j]acridine	279		18.830				ND	
150 Indeno[1,2,3-cd]pyrene	276		20.628				ND	
151 Dibenz(a,h)anthracene	278		20.716				ND	
152 Benzo[g,h,i]perylene	276		21.374				ND	
153 Benzidine	184		10.428				ND	
S 160 Aramite, Total	185		15.047				ND	
S 161 Diallate	86		15.047				ND	
S 162 Isosafrole	162		15.047				ND	
154 Hexachlorophene	196		0.000				ND	
155 Tetraethyl Pyrophosphate (	1		0.000				ND	
157 4,4'-DDE	246		5.094				ND	
158 4,4'-DDD	235		5.394				ND	
159 4,4'-DDT	235		5.623				ND	
S 163 Total Cresols	1		0.000				ND	
S 164 Methyl Phenols, Total	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141363.D

Injection Date: 16-Nov-2015 23:22:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-B-6-A

Lab Sample ID: 280-76532-6

Worklist Smp#: 21

Client ID: TMW15102015

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

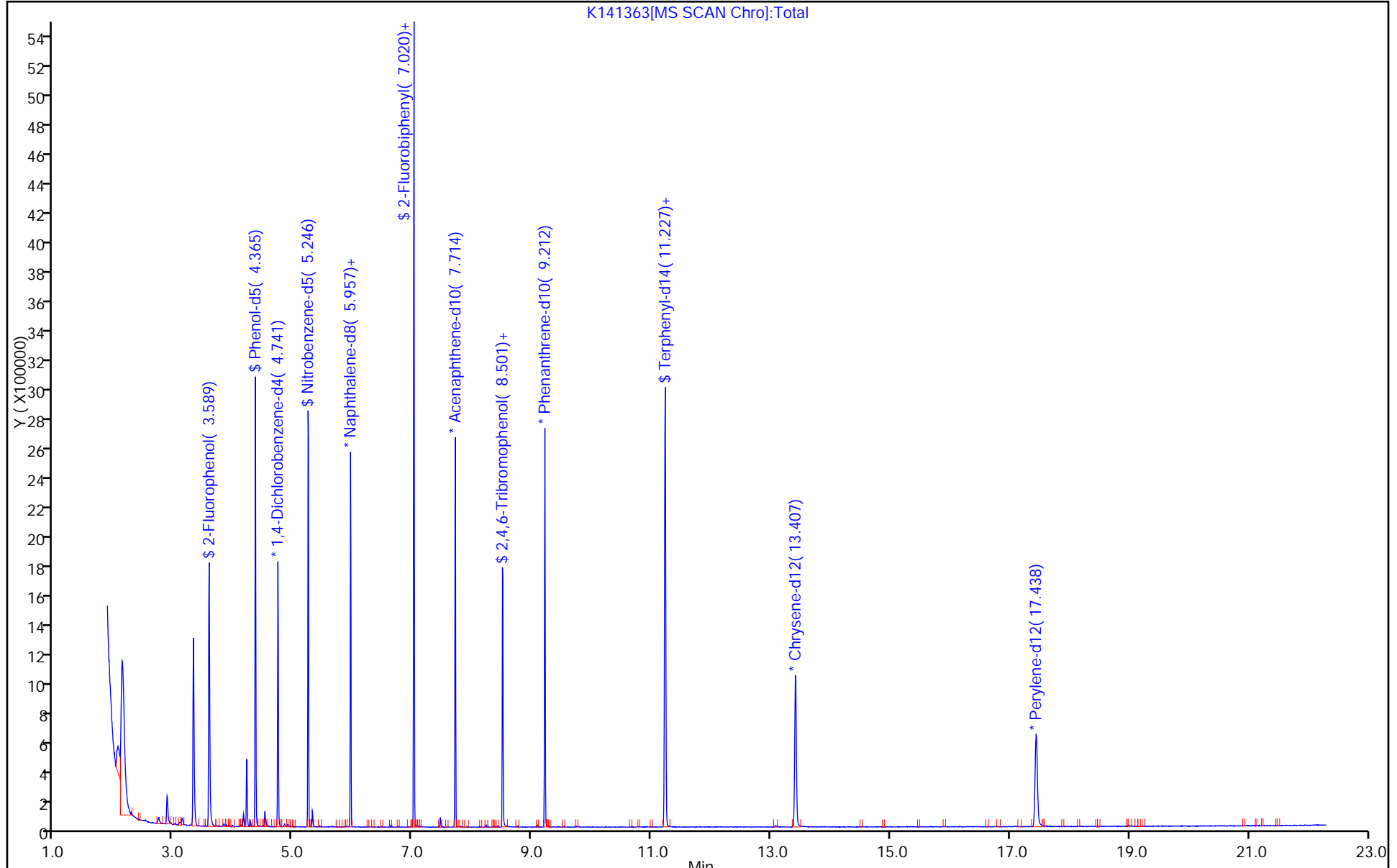
ALS Bottle#: 18

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: DTW15102015 Lab Sample ID: 280-76532-7
 Matrix: Water Lab File ID: K141364.D
 Analysis Method: 8270D Date Collected: 11/06/2015 09:05
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 966.2 (mL) Date Analyzed: 11/16/2015 23:50
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 0.5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.6	U	5.2	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	81		42-131
321-60-8	2-Fluorobiphenyl	77		48-120
367-12-4	2-Fluorophenol (Surr)	78		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	82		42-120
4165-62-2	Phenol-d5 (Surr)	79		45-124
1718-51-0	Terphenyl-d14 (Surr)	76		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141364.D
 Lims ID: 280-76532-A-7-A Lab Sample ID: 280-76532-7
 Client ID: DTW15102015
 Sample Type: Client
 Inject. Date: 16-Nov-2015 23:50:30 ALS Bottle#: 19 Worklist Smp#: 22
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-A-7-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 13:38:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	259607	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	100	980271	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	589225	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	944663	40.0	
* 5 Chrysene-d12	240	13.407	13.419	-0.012	98	743067	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	635301	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	93	684055	77.9	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	861425	79.2	
\$ 9 Nitrobenzene-d5	82	5.246	5.252	-0.006	92	764041	81.5	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1505434	77.5	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	93	159095	80.7	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	1295692	75.9	
13 1,4-Dioxane	88		2.337				ND	
14 N-Nitrosodimethylamine	74		2.537				ND	
15 Pyridine	79		2.584				ND	
16 2-Picoline	93		2.678				ND	
17 N-Nitrosomethylethylamine	88		2.755				ND	
18 Methyl methanesulfonate	80		3.013				ND	
19 N-Nitrosodiethylamine	102		3.377				ND	
20 Pentachlorophenol_T	266		3.872				ND	
21 Ethyl methanesulfonate	79		3.636				ND	
22 Phenol	94		4.376				ND	
23 Aniline	93		4.435				ND	
24 Bis(2-chloroethyl)ether	93		4.470				ND	
25 Pentachloroethane	117		4.118				ND	
26 2-Chlorophenol	128		4.553				ND	
27 1,3-Dichlorobenzene	146		4.699				ND	
28 1,4-Dichlorobenzene	146		4.758				ND	
29 Benzyl alcohol	108		4.846				ND	
30 2-Methylphenol	108		4.940				ND	
31 1,2-Dichlorobenzene	146		4.905				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.976				ND	
33 Benzidine_T	184		4.959				ND	
34 N-Nitrosopyrrolidine	100		4.711				ND	
35 3-Methylphenol	108		5.081				ND	
36 3 & 4 Methylphenol	108		5.081				ND	
37 4-Methylphenol	108		5.081				ND	
38 N-Nitrosomorpholine	116		4.746				ND	
39 N-Nitrosodi-n-propylamine	70		5.093				ND	
40 Acetophenone	105		5.105				ND	
41 2-Toluidine	106		4.782				ND	
42 Benzaldehyde	106		4.071				ND	
43 Hexachloroethane	117		5.234				ND	
44 Nitrobenzene	77		5.269				ND	
45 N-Nitrosopiperidine	114		5.046				ND	
46 Isophorone	82		5.493				ND	
47 2-Nitrophenol	139		5.581				ND	
48 2,4-Dimethylphenol	107		5.593				ND	
49 o,o',o"-Triethylphosphoro	198		5.322				ND	
50 Bis(2-chloroethoxy)methane	93		5.687				ND	
51 Benzoic acid	105		5.704				ND	
52 alpha,alpha-Dimethyl phene	58		5.487				ND	
53 2,4-Dichlorophenol	162		5.810				ND	
54 1,2,4-Trichlorobenzene	180		5.904				ND	
55 Naphthalene	128		5.980				ND	
56 4-Chloroaniline	127		6.016				ND	
57 2,6-Dichlorophenol	162		6.033				ND	
58 Hexachloropropene	213		5.716				ND	
59 Hexachlorobutadiene	225		6.104				ND	
60 Caprolactam	55		6.345				ND	
61 N-Nitrosodi-n-butylamine	84		5.997				ND	
62 p-Phenylene diamine	108	5.957	5.998	-0.041	48	92537	NC	
63 4-Chloro-3-methylphenol	107		6.480				ND	
64 Safrole, Total	162		6.209				ND	
65 2-Methylnaphthalene	142		6.662				ND	
66 1-Methylnaphthalene	142		6.768				ND	
67 Hexachlorocyclopentadiene	237		6.832				ND	
68 1,2,4,5-Tetrachlorobenzene	216		6.838				ND	
69 Isosafrole Peak 1	162		6.497				ND	
70 2-Chloronaphthalene	162		7.155				ND	
71 2,4,6-Trichlorophenol	196		6.938				ND	
72 2,4,5-Trichlorophenol	196		6.973				ND	
73 Isosafrole Peak 2	104		6.721				ND	
74 1,1'-Biphenyl	154		7.126				ND	
75 1-Chloronaphthalene	162		6.809				ND	
76 2-Nitroaniline	65		7.238				ND	
77 1,4-Naphthoquinone	158	7.020	6.944	0.076	44	2867	NC	
78 1,4-Dinitrobenzene	168		6.997				ND	
79 Dimethyl phthalate	163		7.414				ND	
80 2,6-Dinitrotoluene	165		7.473				ND	
81 1,3-Dinitrobenzene	168		7.443				ND	
82 Acenaphthylene	152		7.573				ND	
83 3-Nitroaniline	138		7.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.749				ND	
85 2,4-Dinitrophenol	184		7.755				ND	
86 4-Nitrophenol	109		7.808				ND	
87 Pentachlorobenzene	250		7.514				ND	
88 2,4-Dinitrotoluene	165		7.884				ND	
89 Dibenzofuran	168		7.919				ND	
90 1-Naphthylamine	143		7.766				ND	
91 2,3,4,6-Tetrachlorophenol	232		8.037				ND	
92 2-Naphthylamine	143		7.766				ND	
93 Diethyl phthalate	149		8.119				ND	
94 Thionazin	97		7.837				ND	
95 4-Chlorophenyl phenyl ethe	204		8.248				ND	
96 N-Nitro-o-toluidine	152		7.884				ND	
97 Fluorene	166		8.266				ND	
98 4-Nitroaniline	138		8.272				ND	
99 4,6-Dinitro-2-methylphenol	198		8.301				ND	
100 N-Nitrosodiphenylamine	169		8.366				ND	
101 Diphenylamine	169		7.990				ND	
102 1,2-Diphenylhydrazine	77		8.413				ND	
103 Azobenzene	77		8.413				ND	
104 Sulfotepp	97		8.148				ND	
105 1,3,5-Trinitrobenzene	213		8.236				ND	
106 Diallate Peak 1	86		8.283				ND	
107 Phenacetin	108		8.295				ND	
108 Phorate	121		8.289				ND	
109 4-Bromophenyl phenyl ether	248		8.748				ND	
110 Diallate Peak 2	86		8.372				ND	
111 Dimethoate	87		8.448				ND	
112 Hexachlorobenzene	284		8.836				ND	
113 4-Aminobiphenyl	169		8.624				ND	
114 Pentachlorophenol	266		9.024				ND	
115 Pentachloronitrobenzene	237		8.654				ND	
116 Pronamide	173	8.501	8.689	-0.188	56	3776	NC	
117 Disulfoton	88		8.812				ND	
118 Dinoseb	211		8.818				ND	
119 Phenanthrene	178		9.241				ND	
120 Anthracene	178		9.294				ND	
121 Carbazole	167		9.441				ND	
122 Methyl parathion	109		9.182				ND	
123 Di-n-butyl phthalate	149		9.788				ND	
124 Ethyl Parathion	109		9.582				ND	
125 4-Nitroquinoline-1-oxide	190		9.611				ND	
126 Methapyrilene	97		9.435				ND	
127 Isodrin	193		9.940				ND	
128 Fluoranthene	202		10.651				ND	
129 Pyrene	202		10.998				ND	
130 Aramite Peak 1	185		10.604				ND	
131 Aramite Peak 2	185		10.722				ND	
132 p-Dimethylamino azobenzene	120		10.851				ND	
133 Chlorobenzilate	251		10.933				ND	
134 Famphur	218		12.020				ND	
135 3,3'-Dimethylbenzidine	212	11.227	11.415	-0.188	62	96138	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149		12.150				ND	
137 2-Acetylaminofluorene	181		11.897				ND	
138 4,4'-Methylene bis(2-chlor	231		12.520				ND	
139 3,3'-Dichlorobenzidine	252		13.348				ND	
140 Benzo[a]anthracene	228		13.395				ND	
141 Chrysene	228		13.483				ND	
142 Bis(2-ethylhexyl) phthalat	149		13.560				ND	
143 Di-n-octyl phthalate	149		15.411				ND	
144 7,12-Dimethylbenz(a)anthra	256		15.234				ND	
145 Benzo[b]fluoranthene	252		16.339				ND	
146 Benzo[k]fluoranthene	252		16.415				ND	
147 Benzo[a]pyrene	252		17.285				ND	
148 3-Methylcholanthrene	268		17.156				ND	
149 Dibenz[a,j]acridine	279		18.830				ND	
150 Indeno[1,2,3-cd]pyrene	276		20.628				ND	
151 Dibenz(a,h)anthracene	278		20.716				ND	
152 Benzo[g,h,i]perylene	276		21.374				ND	
153 Benzidine	184		10.428				ND	
S 160 Aramite, Total	185		15.047				ND	
S 161 Diallate	86		15.047				ND	
S 162 Isosafrole	162		15.047				ND	
154 Hexachlorophene	196		0.000				ND	
155 Tetraethyl Pyrophosphate (	1		0.000				ND	
157 4,4'-DDE	246		5.094				ND	
158 4,4'-DDD	235		5.394				ND	
159 4,4'-DDT	235		5.623				ND	
S 163 Total Cresols	1		0.000				ND	
S 164 Methyl Phenols, Total	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141364.D

Injection Date: 16-Nov-2015 23:50:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-A-7-A

Lab Sample ID: 280-76532-7

Worklist Smp#: 22

Client ID: DTW15102015

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

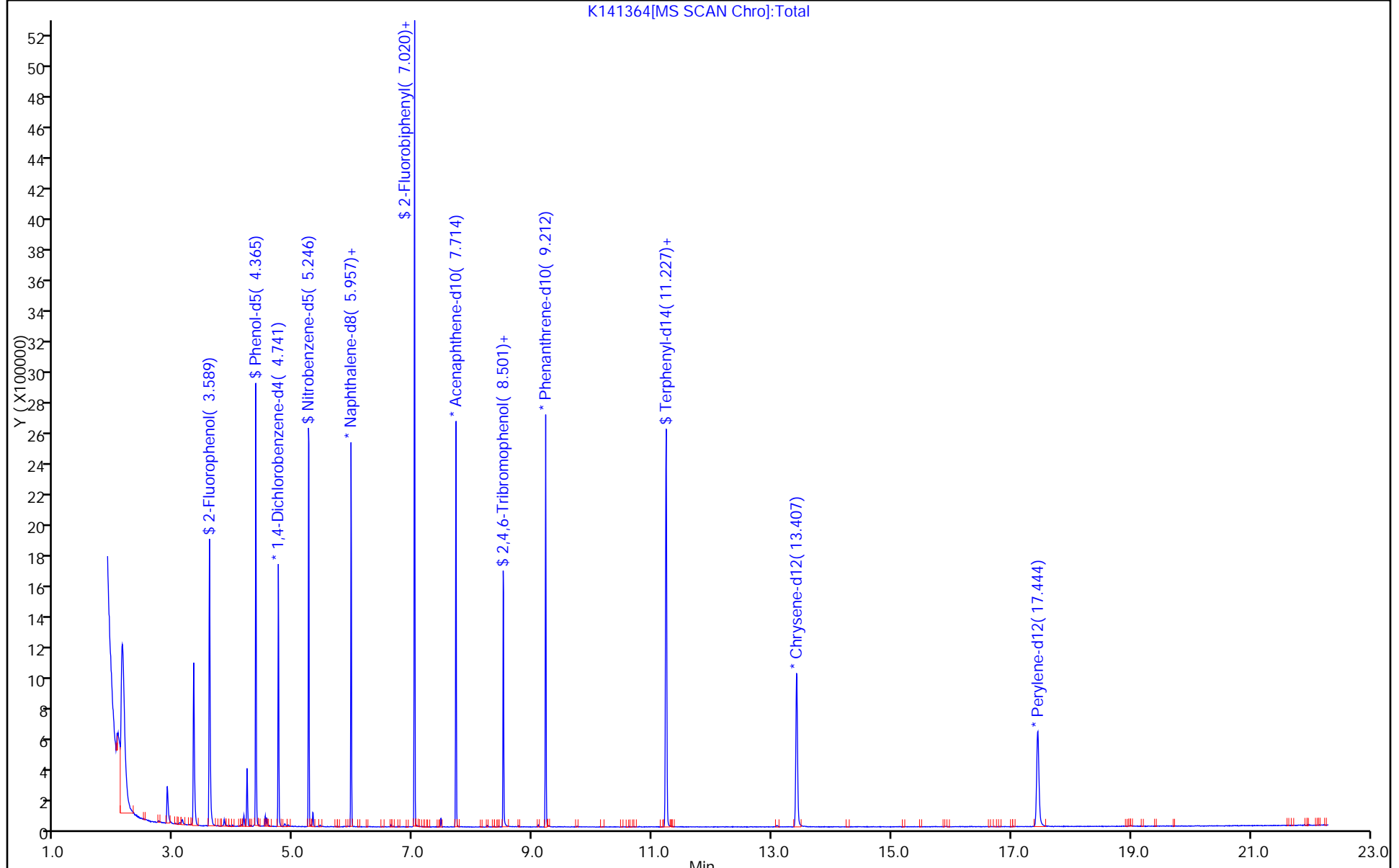
ALS Bottle#: 19

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



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

Lab Name: TestAmerica Denver Job No.: 280-76532-2 Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K GC Column: Vf-5MS (30. ID: 0.25 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40 Calibration End Date: 11/12/2015 15:55 Calibration ID: 24426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-304153/4	K141244.D
Level 2	STD010 280-304153/5	K141245.D
Level 3	STD020 280-304153/6	K141246.D
Level 4	STD050 280-304153/7	K141247.D
Level 5	ICIS 280-304153/3	K141243.D
Level 6	STD120 280-304153/8	K141248.D
Level 7	STD160 280-304153/9	K141249.D
Level 8	STD200 280-304153/10	K141250.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								
	LVL 6	LVL 7	LVL 8														
1,4-Dioxane	0.5790 0.5982	0.6105 0.5747	0.6363 0.5764	0.5979	0.6116	Ave		0.5981			3.6		20.0				
N-Nitrosodimethylamine	0.9464 0.9092	0.9184 0.9001	0.9036 0.8998	0.9448	0.9529	Ave		0.9219			2.4		20.0				
Pyridine	1.6799 1.6048	1.5928 1.5697	1.5763 1.5690	1.6341	1.6531	Ave		1.6100			2.6		20.0				
Phenol	1.8923 1.6105	1.7348 1.5717	1.7190 1.5336	1.7255	1.7139	Ave		1.6876		0.8000	6.7		20.0				
Aniline	2.2577 2.0212	2.1452 2.0256	2.1515 2.0206	2.1599	2.1525	Ave		2.1168			4.1		20.0				
Bis(2-chloroethyl)ether	1.5321 1.3238	1.4017 1.2408	1.3560 1.1861	1.3524	1.3540	Ave		1.3434		0.7000	7.7		20.0				
2-Chlorophenol	1.5161 1.3241	1.4177 1.2984	1.3960 1.2594	1.3936	1.4045	Ave		1.3762		0.8000	5.8		20.0				
1,3-Dichlorobenzene	1.7878 1.5237	1.6478 1.4651	1.5878 1.4329	1.6314	1.6000	Ave		1.5846			7.1		20.0				
1,4-Dichlorobenzene	1.7843 1.5220	1.6844 1.4654	1.6090 1.4283	1.6270	1.6142	Ave		1.5918			7.3		20.0				
Benzyl alcohol	0.9879 0.8606	0.9425 0.8603	0.8983 0.8445	0.9190	0.9061	Ave		0.9024			5.3		20.0				
1,2-Dichlorobenzene	1.7240 1.4582	1.5552 1.3967	1.5497 1.3690	1.5611	1.5463	Ave		1.5200			7.4		20.0				
2-Methylphenol	1.3983 1.1974	1.2924 1.1682	1.2445 1.1480	1.2748	1.2428	Ave		1.2458		0.7000	6.4		20.0				
bis (2-chloroisopropyl) ether	2.4194 2.0402	2.2155 1.9833	2.1407 1.9284	2.1394	2.1417	Ave		2.1261		0.0100	7.1		20.0				
3 & 4 Methylphenol	1.3993 1.2069	1.3302 1.1831	1.2985 1.1513	1.3176	1.2770	Ave		1.2705			6.6		20.0				

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

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

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K

GC Column: Vf-5MS (30. ID: 0.25 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40

Calibration End Date: 11/12/2015 15:55

Calibration ID: 24426

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								
	LVL 6	LVL 7	LVL 8														
3-Methylphenol	1.3993 1.2069	1.3302 1.1831	1.2985 1.1513	1.3176	1.2770	Ave		1.2705			6.6		20.0				
4-Methylphenol	1.3993 1.2069	1.3302 1.1831	1.2985 1.1513	1.3176	1.2770	Ave		1.2705		0.6000	6.6		20.0				
N-Nitrosodi-n-propylamine	1.0730 0.8552	1.0006 0.8435	0.9263 0.8015	0.9363	0.9061	Ave		0.9178		0.5000	9.6		20.0				
Acetophenone	2.0313 1.5805	1.8726 1.5369	1.7676 1.4514	1.7559	1.6884	Ave		1.7105		0.0100	11.0		20.0				
Hexachloroethane	0.6366 0.5486	0.5931 0.5273	0.5758 0.5236	0.5828	0.5844	Ave		0.5715		0.3000	6.5		20.0				
Nitrobenzene	0.3558 0.3602	0.3511 0.3477	0.3571 0.3451	0.3713	0.3617	Ave		0.3562			2.4		20.0				
Isophorone	0.7400 0.6300	0.7049 0.6180	0.6871 0.6016	0.6735	0.6566	Ave		0.6640		0.4000	7.0		20.0				
2-Nitrophenol	0.1499 0.1737	0.1411 0.1752	0.1547 0.1734	0.1699	0.1643	Ave		0.1628		0.1000	7.8		20.0				
2,4-Dimethylphenol	0.3879 0.3300	0.3624 0.3166	0.3546 0.3100	0.3508	0.3448	Ave		0.3446		0.2000	7.4		20.0				
Bis(2-chloroethoxy)methane	0.4539 0.3837	0.4331 0.3754	0.4185 0.3590	0.4160	0.4063	Ave		0.4057		0.3000	7.8		20.0				
Benzoic acid	++++ 0.2343	0.1293 0.2478	0.1545 0.2508	0.2061	0.2024	Lin2	-2.469	0.2392						0.9920		0.9900	
2,4-Dichlorophenol	0.3292 0.2942	0.3223 0.2858	0.3112 0.2812	0.3126	0.3048	Ave		0.3052		0.2000	5.6		20.0				
1,2,4-Trichlorobenzene	0.4126 0.3404	0.3762 0.3260	0.3629 0.3153	0.3673	0.3556	Ave		0.3570			8.6		20.0				
Naphthalene	1.1547 0.9277	1.0668 0.8815	1.0552 0.8592	1.0304	0.9818	Ave		0.9947		0.7000	10.2		20.0				
4-Chloroaniline	0.5009 0.4153	0.4617 0.4037	0.4645 0.3848	0.4586	0.4395	Ave		0.4411		0.0100	8.6		20.0				
2,6-Dichlorophenol	0.3368 0.2913	0.3157 0.2754	0.3100 0.2684	0.3070	0.3016	Ave		0.3008			7.4		20.0				
Hexachlorobutadiene	0.2249 0.1875	0.2050 0.1791	0.2047 0.1746	0.1998	0.1987	Ave		0.1968		0.0100	8.2		20.0				
Caprolactam	0.1691 0.1498	0.1610 0.1573	0.1560 0.1563	0.1613	0.1545	Ave		0.1582			3.6		20.0				
4-Chloro-3-methylphenol	0.3027 0.2654	0.2898 0.2638	0.2861 0.2524	0.2854	0.2749	Ave		0.2776		0.2000	5.9		20.0				
2-Methylnaphthalene	0.8269 0.6681	0.7754 0.6423	0.7631 0.6138	0.7395	0.7107	Ave		0.7175		0.4000	10.1		20.0				

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

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

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K

GC Column: Vf-5MS (30. ID: 0.25 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40

Calibration End Date: 11/12/2015 15:55

Calibration ID: 24426

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								
	LVL 6	LVL 7	LVL 8														
1-Methylnaphthalene	0.7212 0.5898	0.6881 0.5690	0.6661 0.5464	0.6535	0.6294	Ave		0.6329			9.6		20.0				
Hexachlorocyclopentadiene	0.4004 0.3822	0.3907 0.3578	0.3737 0.3443	0.4018	0.4054	Ave		0.3820		0.0500	5.8		20.0				
1,2,4,5-Tetrachlorobenzene	0.4012 0.3101	0.3715 0.2952	0.3631 0.2819	0.3471	0.3255	Ave		0.3369		0.0100	12.2		20.0				
2,4,6-Trichlorophenol	0.3920 0.3495	0.3824 0.3262	0.3807 0.3175	0.3896	0.3680	Ave		0.3632		0.2000	8.0		20.0				
2,4,5-Trichlorophenol	0.4139 0.3976	0.4018 0.3785	0.3975 0.3739	0.4028	0.4030	Ave		0.3961		0.2000	3.4		20.0				
1,1'-Biphenyl	1.6464 1.4096	1.5792 1.3147	1.5103 1.2525	1.5195	1.4884	Ave		1.4651			9.0		20.0				
2-Chloronaphthalene	1.2705 1.0836	1.1928 1.0186	1.1539 0.9818	1.1547	1.1223	Ave		1.1223		0.8000	8.3		20.0				
2-Nitroaniline	0.2371 0.3017	0.2450 0.2981	0.2607 0.3024	0.3010	0.2882	Ave		0.2793		0.0100	9.8		20.0				
Dimethyl phthalate	1.2643 1.0625	1.1575 1.0247	1.1359 1.0158	1.1475	1.1222	Ave		1.1163		0.0100	7.3		20.0				
1,3-Dinitrobenzene	++++ 0.1581	0.0813 0.1696	0.1001 0.1774	0.1379	0.1266	Lin1	-1.262	0.1723						0.9900		0.9900	
2,6-Dinitrotoluene	++++ 0.2638	0.2006 0.2652	0.2187 0.2675	0.2590	0.2426	Ave		0.2453		0.2000	10.7		20.0				
Acenaphthylene	1.9813 1.6472	1.8570 1.5461	1.7871 1.5090	1.8056	1.7430	Ave		1.7345		0.9000	9.2		20.0				
3-Nitroaniline	0.2111 0.2933	0.2237 0.2991	0.2582 0.3006	0.2896	0.2882	Ave		0.2705		0.0100	13.1		20.0				
Acenaphthene	1.2433 1.0286	1.1955 0.9693	1.1628 0.9437	1.1350	1.0954	Ave		1.0967		0.9000	9.8		20.0				
2,4-Dinitrophenol	++++ 0.1151	0.0441 0.1273	0.0631 0.1374	0.0931	0.0869	Qua	-0.818	0.0779	0.0001566	0.0100				0.9980		0.9900	
4-Nitrophenol	0.1104 0.1339	0.1056 0.1370	0.1209 0.1378	0.1289	0.1333	Ave		0.1260		0.0100	9.8		20.0				
2,4-Dinitrotoluene	++++ 0.3264	0.2047 0.3330	0.2517 0.3377	0.2984	0.2920	Lin2	-1.339	0.3306		0.2000				0.9970		0.9900	
Dibenzofuran	1.7791 1.4838	1.6601 1.4225	1.6366 1.3730	1.6245	1.5600	Ave		1.5674		0.8000	8.6		20.0				
2,3,4,6-Tetrachlorophenol	0.2769 0.3017	0.2727 0.2926	0.2893 0.2903	0.3134	0.3013	Ave		0.2923		0.0100	4.6		20.0				
Diethyl phthalate	1.1847 1.0007	1.1214 0.9704	1.1057 0.9460	1.0874	1.0720	Ave		1.0610		0.0100	7.7		20.0				

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

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

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K

GC Column: Vf-5MS (30. ID: 0.25 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40

Calibration End Date: 11/12/2015 15:55

Calibration ID: 24426

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								
	LVL 6	LVL 7	LVL 8														
4-Chlorophenyl phenyl ether	0.6810 0.5845	0.6629 0.5642	0.6319 0.5522	0.6366	0.6108	Ave		0.6155			0.4000	7.5	20.0				
Fluorene	1.4362 1.1484	1.3433 1.1137	1.3048 1.0931	1.2926	1.2334	Ave		1.2457			0.9000	9.7	20.0				
4-Nitroaniline	0.2121 0.2680	0.2195 0.2774	0.2522 0.2870	0.2722	0.2655	Ave		0.2567			0.0100	10.6	20.0				
4,6-Dinitro-2-methylphenol	++++ 0.1144	0.0483 0.1191	0.0697 0.1233	0.0973	0.0921	Lin2	-1.480	0.1163			0.0100			0.9900		0.9900	
N-Nitrosodiphenylamine	0.6423 0.5117	0.6027 0.4688	0.5994 0.4514	0.5628	0.5439	Ave		0.5479			0.0100	12.3	20.0				
1,2-Diphenylhydrazine(as Azobenzene)	1.2160 1.0901	1.1798 1.0567	1.1699 1.0339	1.1590	1.1386	Ave		1.1305				5.7	20.0				
Azobenzene	1.2293 1.1020	1.1928 1.0682	1.1827 1.0452	1.1717	1.1511	Ave		1.1429				5.7	20.0				
4-Bromophenyl phenyl ether	0.2304 0.2089	0.2186 0.1992	0.2169 0.1940	0.2212	0.2159	Ave		0.2131			0.1000	5.6	20.0				
Hexachlorobenzene	0.2213 0.1979	0.2187 0.1859	0.2155 0.1822	0.2069	0.2055	Ave		0.2043			0.1000	7.2	20.0				
Pentachlorophenol	++++ 0.1283	0.1089 0.1232	0.1184 0.1219	0.1283	0.1290	Lin2	-0.363	0.1278			0.0500			0.9990		0.9900	
Phenanthrene	1.2447 1.0486	1.1759 0.9992	1.1684 0.9512	1.1261	1.1034	Ave		1.1022			0.7000	8.9	20.0				
Anthracene	1.2491 1.0713	1.1889 1.0048	1.1907 0.9788	1.1424	1.1245	Ave		1.1188			0.7000	8.4	20.0				
Carbazole	1.0784 0.9779	1.0478 0.9469	1.0511 0.9146	1.0185	1.0270	Ave		1.0078			0.0100	5.6	20.0				
Di-n-butyl phthalate	1.1140 1.0576	1.0891 1.0213	1.0926 0.9924	1.0903	1.1190	Ave		1.0720			0.0100	4.2	20.0				
Fluoranthene	1.2303 1.1445	1.1680 1.1175	1.1760 1.0945	1.1753	1.1868	Ave		1.1616			0.6000	3.6	20.0				
Pyrene	1.5561 1.3505	1.4825 1.2850	1.4455 1.2502	1.4291	1.4180	Ave		1.4021			0.6000	7.3	20.0				
Famphur	0.4573 0.4445	0.4459 0.4196	0.4437 0.4019	0.4739	0.4784	Ave		0.4456				5.8	20.0				
Butyl benzyl phthalate	0.5246 0.5509	0.5272 0.5378	0.5332 0.5304	0.5575	0.5726	Ave		0.5418			0.0100	3.1	20.0				
3,3'-Dichlorobenzidine	0.3830 0.3682	0.3562 0.3541	0.3454 0.3410	0.3520	0.3735	Ave		0.3592			0.0100	4.0	20.0				
Benzo[a]anthracene	1.3237 1.2385	1.2484 1.2049	1.2324 1.1889	1.2584	1.2795	Ave		1.2468			0.8000	3.4	20.0				

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

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

Lab Name: TestAmerica Denver Job No.: 280-76532-2 Analy Batch No.: 304153
 SDG No.: _____
 Instrument ID: SMS_K GC Column: Vf-5MS (30. ID: 0.25 (mm)) Heated Purge: (Y/N) N
 Calibration Start Date: 11/12/2015 12:40 Calibration End Date: 11/12/2015 15:55 Calibration ID: 24426

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								
	LVL 6	LVL 7	LVL 8														
Chrysene	1.2809 1.1865	1.1884 1.1445	1.1730 1.1342	1.2142	1.2126	Ave		1.1918		0.7000	3.9		20.0				
Bis(2-ethylhexyl) phthalate	0.6965 0.7446	0.6682 0.7255	0.6879 0.7248	0.7280	0.7776	Ave		0.7191		0.0100	4.8		20.0				
Di-n-octyl phthalate	1.1091 1.2744	1.0763 1.2567	1.1153 1.2533	1.2373	1.3348	Ave		1.2071		0.0100	7.8		20.0				
Benzo[b]fluoranthene	1.2503 1.2361	1.2238 1.2367	1.1989 1.2152	1.2504	1.2555	Ave		1.2334		0.7000	1.6		20.0				
Benzo[k]fluoranthene	1.2341 1.2567	1.2203 1.2419	1.2430 1.2056	1.2756	1.2665	Ave		1.2430		0.7000	1.9		20.0				
Benzo[a]pyrene	1.1980 1.2215	1.1795 1.2066	1.1582 1.1813	1.2299	1.2458	Ave		1.2026		0.7000	2.4		20.0				
Indeno[1,2,3-cd]pyrene	0.8821 0.9917	0.8382 0.9791	0.8696 0.9892	0.9533	0.9864	Ave		0.9362		0.5000	6.7		20.0				
Dibenz(a,h)anthracene	1.0032 1.0745	0.9694 1.0688	0.9998 1.0596	1.0636	1.0746	Ave		1.0392		0.4000	4.0		20.0				
Benzo[g,h,i]perylene	1.0938 1.1228	1.0333 1.1042	1.0558 1.0946	1.1068	1.1148	Ave		1.0908		0.5000	2.8		20.0				
2-Fluorophenol (Surr)	1.4649 1.3307	1.3359 1.2957	1.3472 1.2931	1.3652	1.3943	Ave		1.3534			4.2		20.0				
Phenol-d5 (Surr)	1.8444 1.6034	1.7453 1.5708	1.6713 1.5466	1.7251	1.7081	Ave		1.6769			6.0		20.0				
Nitrobenzene-d5 (Surr)	0.4001 0.3911	0.3820 0.3834	0.3601 0.3836	0.3712	0.3887	Ave		0.3825			3.2		20.0				
2-Fluorobiphenyl	1.5133 1.2633	1.4045 1.1808	1.3549 1.1563	1.3529	1.3273	Ave		1.3192			8.9		20.0				
2,4,6-Tribromophenol (Surr)	0.1277 0.1358	0.1301 0.1358	0.1320 0.1367	0.1374	0.1346	Ave		0.1338			2.6		20.0				
Terphenyl-d14 (Surr)	1.0199 0.8909	0.9621 0.8505	0.9333 0.8349	0.9276	0.9317	Ave		0.9189			6.5		20.0				

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

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

Lab Name: TestAmerica Denver Job No.: 280-76532-2 Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K GC Column: Vf-5MS (30. ID: 0.25 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40 Calibration End Date: 11/12/2015 15:55 Calibration ID: 24426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-304153/4	K141244.D
Level 2	STD010 280-304153/5	K141245.D
Level 3	STD020 280-304153/6	K141246.D
Level 4	STD050 280-304153/7	K141247.D
Level 5	ICIS 280-304153/3	K141243.D
Level 6	STD120 280-304153/8	K141248.D
Level 7	STD160 280-304153/9	K141249.D
Level 8	STD200 280-304153/10	K141250.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
1,4-Dioxane	DCB	Ave	20237 515745	50961 611821	104865 755396	243087	408357	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodimethylamine	DCB	Ave	33076 783878	76659 958234	148919 1179307	384153	636228	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyridine	DCB	Ave	58710 1383577	132960 1670991	259774 2056268	664421	1103791	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol	DCB	Ave	66132 1388541	144809 1673100	283296 2009841	701567	1144380	4.00 120	10.0 160	20.0 200	50.0	80.0
Aniline	DCB	Ave	78904 1742660	179066 2156298	354579 2648159	878215	1437203	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethyl)ether	DCB	Ave	53546 1141314	117010 1320855	223469 1554480	549879	904062	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chlorophenol	DCB	Ave	52986 1141622	118340 1382188	230071 1650458	566635	937745	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dichlorobenzene	DCB	Ave	62481 1313692	137548 1559713	261673 1877851	663312	1068312	4.00 120	10.0 160	20.0 200	50.0	80.0
1,4-Dichlorobenzene	DCB	Ave	62358 1312261	140607 1559990	265166 1871928	661519	1077801	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzyl alcohol	DCB	Ave	34527 742008	78675 915843	148046 1106819	373664	605026	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2-Dichlorobenzene	DCB	Ave	60250 1257207	129821 1486832	255401 1794137	634721	1032479	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylphenol	DCB	Ave	48870 1032393	107885 1243582	205097 1504522	518335	829783	4.00 120	10.0 160	20.0 200	50.0	80.0
bis (2-chloroisopropyl) ether	DCB	Ave	84555 1758975	184937 2111280	352787 2527329	869868	1429996	4.00 120	10.0 160	20.0 200	50.0	80.0
3 & 4 Methylphenol	DCB	Ave	48904 1040562	111040 1259426	213997 1508881	535736	852611	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Methylphenol	DCB	Ave	48904 1040562	111040 1259426	213997 1508881	535736	852611	4.00 120	10.0 160	20.0 200	50.0	80.0

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

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K

GC Column: Vf-5MS (30. ID: 0.25 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40

Calibration End Date: 11/12/2015 15:55

Calibration ID: 24426

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4-Methylphenol	DCB	Ave	48904 1040562	111040 1259426	213997 1508881	535736	852611	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodi-n-propylamine	DCB	Ave	37499 737339	83527 897955	152660 1050354	380702	605007	4.00 120	10.0 160	20.0 200	50.0	80.0
Acetophenone	DCB	Ave	70990 1362649	156312 1636060	291305 1902118	713929	1127301	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachloroethane	DCB	Ave	22248 472955	49506 561388	94899 686223	236986	390217	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene	NPT	Ave	45866 1107339	106222 1354603	210393 1634080	538293	864932	4.00 120	10.0 160	20.0 200	50.0	80.0
Isophorone	NPT	Ave	95406 1936999	213258 2407444	404848 2848479	976299	1570090	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitrophenol	NPT	Ave	19331 534085	42694 682602	91152 820943	246318	392792	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	50003 1014591	109648 1233414	208962 1467701	508536	824512	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	58512 1179541	131051 1462232	246599 1699879	603087	971658	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzoic acid	NPT	Lin2	++++ 1440436	78235 1930449	182091 2374968	597449	967881	++++ 240	20.0 320	40.0 400	100	160
2,4-Dichlorophenol	NPT	Ave	42439 904439	97502 1113386	183393 1331600	453135	728861	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	53189 1046532	113813 1270070	213859 1492971	532404	850270	4.00 120	10.0 160	20.0 200	50.0	80.0
Naphthalene	NPT	Ave	148866 2852176	322769 3434016	621740 4068173	1493745	2347921	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloroaniline	NPT	Ave	64580 1276909	139702 1572472	273691 1821929	664838	1050945	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dichlorophenol	NPT	Ave	43420 895674	95531 1072776	182665 1271002	445010	721172	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobutadiene	NPT	Ave	28991 576359	62031 697691	120643 826547	289571	475212	4.00 120	10.0 160	20.0 200	50.0	80.0
Caprolactam	NPT	Ave	21801 460498	48704 612721	91919 740304	233836	369434	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	39021 815998	87685 1027619	168585 1195163	413766	657471	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylnaphthalene	NPT	Ave	106607 2054074	234604 2502196	449659 2906499	1071990	1699470	4.00 120	10.0 160	20.0 200	50.0	80.0
1-Methylnaphthalene	NPT	Ave	92980 1813253	208188 2216754	392477 2587300	947294	1505194	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	30406 645069	68735 793577	129454 912426	330516	535665	4.00 120	10.0 160	20.0 200	50.0	80.0

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

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K

GC Column: Vf-5MS (30. ID: 0.25 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40

Calibration End Date: 11/12/2015 15:55

Calibration ID: 24426

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4,5-Tetrachlorobenzene	NPT	Ave	51729 953348	112400 1149891	213947 1334581	503098	778404	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	29772 589899	67281 723458	131864 841571	320444	486290	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,5-Trichlorophenol	ANT	Ave	31435 671024	70695 839366	137684 991043	331318	532519	4.00 120	10.0 160	20.0 200	50.0	80.0
1,1'-Biphenyl	ANT	Ave	125039 2378964	277846 2915680	523159 3319617	1249897	1966840	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chloronaphthalene	ANT	Ave	96491 1828734	209857 2258965	399715 2602179	949843	1483115	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitroaniline	ANT	Ave	18010 509183	43101 661155	90301 801471	247566	380814	4.00 120	10.0 160	20.0 200	50.0	80.0
Dimethyl phthalate	ANT	Ave	96022 1793206	203657 2272564	393463 2692221	943901	1482964	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dinitrobenzene	ANT	Lin1	++++ 266766	14297 376139	34665 470072	113439	167320	++++ 120	10.0 160	20.0 200	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	++++ 445162	35293 588044	75759 709007	213088	320600	++++ 120	10.0 160	20.0 200	50.0	80.0
Acenaphthylene	ANT	Ave	150475 2779866	326728 3428715	619064 3999424	1485260	2303318	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Nitroaniline	ANT	Ave	16029 495008	39366 663281	89449 796595	238214	380824	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthene	ANT	Ave	94427 1735973	210329 2149537	402801 2501035	933624	1447510	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dinitrophenol	ANT	Qua	++++ 388603	15515 564711	43714 728530	153120	229693	++++ 240	20.0 320	40.0 400	100	160
4-Nitrophenol	ANT	Ave	16768 451973	37156 607542	83729 730695	212097	352350	8.00 240	20.0 320	40.0 400	100	160
2,4-Dinitrotoluene	ANT	Lin2	++++ 550855	36010 738526	87180 895091	245470	385855	++++ 120	10.0 160	20.0 200	50.0	80.0
Dibenzofuran	ANT	Ave	135118 2504066	292071 3154726	566925 3638828	1336255	2061519	4.00 120	10.0 160	20.0 200	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	21029 509138	47979 648852	100231 769409	257806	398191	4.00 120	10.0 160	20.0 200	50.0	80.0
Diethyl phthalate	ANT	Ave	89972 1688878	197303 2151968	383004 2507232	894511	1416645	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	51720 986521	116623 1251279	218896 1463559	523686	807147	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluorene	ANT	Ave	109076 1938169	236347 2469787	451974 2897170	1063281	1629967	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Nitroaniline	ANT	Ave	16111 452347	38626 615126	87353 760620	223911	350894	4.00 120	10.0 160	20.0 200	50.0	80.0

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

Lab Name: TestAmerica Denver

Job No.: 280-76532-2

Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K

GC Column: Vf-5MS (30. ID: 0.25 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40

Calibration End Date: 11/12/2015 15:55

Calibration ID: 24426

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4,6-Dinitro-2-methylphenol	PHN	Lin2	++++ 597758	26187 846098	74784 1067763	254085	377179	++++ 240	20.0 320	40.0 400	100	160
N-Nitrosodiphenylamine	PHN	Ave	152868 2673298	326476 3331783	643073 3908356	1469526	2227492	8.00 240	20.0 320	40.0 400	100	160
1,2-Diphenylhydrazine (as Azobenzene)	ANT	Ave	93363 1859831	209856 2369060	409704 2770185	963838	1521165	4.04 121	10.1 162	20.2 202	50.5	80.9
Azobenzene	ANT	Ave	93363 1859831	209856 2369060	409704 2770185	963838	1521165	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	27417 545697	59213 707653	116331 839747	288723	442163	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobenzene	PHN	Ave	26337 516875	59243 660593	115609 788904	270163	420907	4.00 120	10.0 160	20.0 200	50.0	80.0
Pentachlorophenol	PHN	Lin2	++++ 670534	58977 875868	127053 1055824	335079	528444	++++ 240	20.0 320	40.0 400	100	160
Phenanthrene	PHN	Ave	148129 2739113	318456 3550339	626782 4117817	1470154	2259449	4.00 120	10.0 160	20.0 200	50.0	80.0
Anthracene	PHN	Ave	148652 2798566	321978 3570394	638701 4237626	1491352	2302676	4.00 120	10.0 160	20.0 200	50.0	80.0
Carbazole	PHN	Ave	128344 2554606	283769 3364495	563845 3959423	1329601	2103039	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	132581 2762664	294967 3628899	586090 4296488	1423344	2291364	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluoranthene	PHN	Ave	146420 2989763	316336 3970684	630822 4738388	1534289	2430247	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyrene	CRY	Ave	143135 3085403	329059 4123628	645635 4924264	1567876	2498191	4.00 120	10.0 160	20.0 200	50.0	80.0
Famphur	CRY	Ave	42061 1015443	98970 1346639	198177 1582773	519899	842920	4.00 120	10.0 160	20.0 200	50.0	80.0
Butyl benzyl phthalate	CRY	Ave	48254 1258638	117014 1725799	238144 2089286	611576	1008790	4.00 120	10.0 160	20.0 200	50.0	80.0
3,3'-Dichlorobenzidine	CRY	Ave	35230 841231	79057 1136388	154288 1342967	386223	658081	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]anthracene	CRY	Ave	121759 2829523	277099 3866771	550444 4682669	1380523	2254327	4.00 120	10.0 160	20.0 200	50.0	80.0
Chrysene	CRY	Ave	117823 2710734	263782 3672687	523915 4467293	1332028	2136334	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	64064 1701165	148322 2328301	307235 2854760	798714	1370001	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-octyl phthalate	CRY	Ave	102013 2911383	238906 4032741	498124 4936584	1357389	2351698	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	100441 2600800	233243 3595794	466697 4408945	1229916	2027491	4.00 120	10.0 160	20.0 200	50.0	80.0

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

Lab Name: TestAmerica Denver Job No.: 280-76532-2 Analy Batch No.: 304153

SDG No.: _____

Instrument ID: SMS_K GC Column: Vf-5MS (30. ID: 0.25 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 11/12/2015 12:40 Calibration End Date: 11/12/2015 15:55 Calibration ID: 24426

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Benzo[k]fluoranthene	PRY	Ave	99140 2644249	232580 3611170	483883 4373890	1254685	2045177	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]pyrene	PRY	Ave	96245 2570230	224799 3508423	450887 4285831	1209744	2011868	4.00 120	10.0 160	20.0 200	50.0	80.0
Indeno[1,2,3-cd]pyrene	CRY	Ave	81140 2265630	186062 3142160	388425 3896082	1045804	1737882	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenz(a,h)anthracene	PRY	Ave	80590 2260825	184756 3107833	389213 3844203	1046103	1735303	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	87873 2362548	196940 3210591	411004 3971142	1088680	1800215	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorophenol (Surr)	DCB	Ave	51197 1147270	111512 1379290	222016 1694623	555096	930985	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol-d5 (Surr)	DCB	Ave	64459 1382385	145686 1672217	275437 2026911	701428	1140475	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	51578 1202505	115585 1493495	212179 1816588	538029	929429	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	114928 2131950	247106 2618650	469360 3064556	1112882	1754002	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Ave	9696 229204	22892 301239	45720 362410	113005	177822	4.00 120	10.0 160	20.0 200	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	93812 2035404	213549 2729425	416853 3288577	1017696	1641473	4.00 120	10.0 160	20.0 200	50.0	80.0

Curve Type Legend:

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

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141243.D
 Lims ID: ICIS HSL
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 12-Nov-2015 12:40:30 ALS Bottle#: 2 Worklist Smp#: 3
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: ICIS HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:06:51 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:11:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.746	4.746	0.000	97	333846	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	100	1195698	40.0	40.0	
* 3 Acenaphthene-d10	164	7.719	7.719	0.000	90	660741	40.0	40.0	
* 4 Phenanthrene-d10	188	9.224	9.224	0.000	97	1023879	40.0	40.0	
* 5 Chrysene-d12	240	13.436	13.436	0.000	98	880913	40.0	40.0	
* 6 Perylene-d12	264	17.473	17.473	0.000	98	807442	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	94	930985	80.0	82.4	
\$ 8 Phenol-d5	99	4.370	4.370	0.000	97	1140475	80.0	81.5	
\$ 9 Nitrobenzene-d5	82	5.258	5.258	0.000	91	929429	80.0	81.3	
\$ 10 2-Fluorobiphenyl	172	7.026	7.026	0.000	100	1754002	80.0	80.5	
\$ 11 2,4,6-Tribromophenol	330	8.513	8.513	0.000	91	177822	80.0	80.5	
\$ 12 Terphenyl-d14	244	11.239	11.239	0.000	99	1641473	80.0	81.1	
13 1,4-Dioxane	88	2.355	2.355	0.000	99	408357	80.0	81.8	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	89	636228	80.0	82.7	
15 Pyridine	79	2.602	2.602	0.000	90	1103791	80.0	82.1	
22 Phenol	94	4.382	4.382	0.000	98	1144380	80.0	81.2	
23 Aniline	93	4.441	4.441	0.000	97	1437203	80.0	81.3	
24 Bis(2-chloroethyl)ether	93	4.476	4.476	0.000	96	904062	80.0	80.6	
26 2-Chlorophenol	128	4.558	4.558	0.000	97	937745	80.0	81.6	
27 1,3-Dichlorobenzene	146	4.705	4.705	0.000	99	1068312	80.0	80.8	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	94	1077801	80.0	81.1	
29 Benzyl alcohol	108	4.852	4.852	0.000	93	605026	80.0	80.3	
30 2-Methylphenol	108	4.940	4.940	0.000	96	829783	80.0	79.8	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	1032479	80.0	81.4	
32 2,2'-oxybis[1-chloropropan	45	4.981	4.981	0.000	93	1429996	80.0	80.6	
35 3-Methylphenol	108	5.087	5.087	0.000	92	852611	80.0	80.4	
36 3 & 4 Methylphenol	108	5.087	5.087	0.000	98	852611	80.0	80.4	
37 4-Methylphenol	108	5.087	5.087	0.000	95	852611	80.0	80.4	
39 N-Nitrosodi-n-propylamine	70	5.099	5.099	0.000	94	605007	80.0	79.0	
40 Acetophenone	105	5.105	5.105	0.000	96	1127301	80.0	79.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	91	390217	80.0	81.8	
44 Nitrobenzene	77	5.275	5.275	0.000	91	864932	80.0	81.2	
46 Isophorone	82	5.498	5.498	0.000	98	1570090	80.0	79.1	
47 2-Nitrophenol	139	5.581	5.581	0.000	94	392792	80.0	80.7	
48 2,4-Dimethylphenol	107	5.598	5.598	0.000	95	824512	80.0	80.0	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.000	98	971658	80.0	80.1	
51 Benzoic acid	105	5.710	5.710	0.000	89	967881	160.0	145.7	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	95	728861	80.0	79.9	
54 1,2,4-Trichlorobenzene	180	5.910	5.910	0.000	94	850270	80.0	79.7	
55 Naphthalene	128	5.986	5.986	0.000	98	2347921	80.0	79.0	
56 4-Chloroaniline	127	6.021	6.021	0.000	96	1050945	80.0	79.7	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	98	721172	80.0	80.2	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	95	475212	80.0	80.8	
60 Caprolactam	55	6.345	6.345	0.000	77	369434	80.0	78.1	M
63 4-Chloro-3-methylphenol	107	6.486	6.486	0.000	95	657471	80.0	79.2	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	95	1699470	80.0	79.2	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	1505194	80.0	79.6	
67 Hexachlorocyclopentadiene	237	6.838	6.838	0.000	94	535665	80.0	84.9	
68 1,2,4,5-Tetrachlorobenzene	216	6.844	6.844	0.000	96	778404	80.0	77.3	
70 2-Chloronaphthalene	162	7.161	7.161	0.000	95	1483115	80.0	80.0	
71 2,4,6-Trichlorophenol	196	6.944	6.944	0.000	80	486290	80.0	81.0	
72 2,4,5-Trichlorophenol	196	6.979	6.979	0.000	94	532519	80.0	81.4	
74 1,1'-Biphenyl	154	7.132	7.132	0.000	94	1966840	80.0	81.3	
76 2-Nitroaniline	65	7.244	7.244	0.000	85	380814	80.0	82.5	
79 Dimethyl phthalate	163	7.420	7.420	0.000	99	1482964	80.0	80.4	
80 2,6-Dinitrotoluene	165	7.479	7.479	0.000	95	320600	80.0	79.1	
81 1,3-Dinitrobenzene	168	7.449	7.449	0.000	85	167320	80.0	66.1	
82 Acenaphthylene	152	7.578	7.578	0.000	98	2303318	80.0	80.4	
83 3-Nitroaniline	138	7.655	7.655	0.000	95	380824	80.0	85.2	
84 Acenaphthene	153	7.755	7.755	0.000	93	1447510	80.0	79.9	
85 2,4-Dinitrophenol	184	7.761	7.761	0.000	84	229693	160.0	146.1	
86 4-Nitrophenol	109	7.808	7.808	0.000	96	352350	160.0	169.3	
88 2,4-Dinitrotoluene	165	7.890	7.890	0.000	95	385855	80.0	74.7	
89 Dibenzofuran	168	7.925	7.925	0.000	98	2061519	80.0	79.6	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	74	398191	80.0	82.5	
93 Diethyl phthalate	149	8.125	8.125	0.000	99	1416645	80.0	80.8	
95 4-Chlorophenyl phenyl ethe	204	8.254	8.254	0.000	92	807147	80.0	79.4	
97 Fluorene	166	8.272	8.272	0.000	94	1629967	80.0	79.2	
98 4-Nitroaniline	138	8.278	8.278	0.000	85	350894	80.0	82.7	
99 4,6-Dinitro-2-methylphenol	198	8.307	8.307	0.000	87	377179	160.0	139.5	
100 N-Nitrosodiphenylamine	169	8.372	8.372	0.000	62	2227492	160.0	158.8	
102 1,2-Diphenylhydrazine	77	8.419	8.419	0.000	98	1521165	80.9	81.5	
103 Azobenzene	77	8.419	8.419	0.000	98	1521165	80.0	80.6	
109 4-Bromophenyl phenyl ether	248	8.754	8.754	0.000	66	442163	80.0	81.1	
112 Hexachlorobenzene	284	8.842	8.842	0.000	93	420907	80.0	80.5	
114 Pentachlorophenol	266	9.030	9.030	0.000	93	528444	160.0	164.3	
119 Phenanthrene	178	9.247	9.247	0.000	97	2259449	80.0	80.1	
120 Anthracene	178	9.300	9.300	0.000	97	2302676	80.0	80.4	
121 Carbazole	167	9.447	9.447	0.000	95	2103039	80.0	81.5	
123 Di-n-butyl phthalate	149	9.799	9.799	0.000	100	2291364	80.0	83.5	
128 Fluoranthene	202	10.663	10.663	0.000	97	2430247	80.0	81.7	
129 Pyrene	202	11.010	11.010	0.000	98	2498191	80.0	80.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.032	12.032	0.000	100	842920	80.0	85.9	
136 Butyl benzyl phthalate	149	12.161	12.161	0.000	97	1008790	80.0	84.5	
139 3,3'-Dichlorobenzidine	252	13.360	13.360	0.000	73	658081	80.0	83.2	
140 Benzo[a]anthracene	228	13.413	13.413	0.000	98	2254327	80.0	82.1	
141 Chrysene	228	13.501	13.501	0.000	97	2136334	80.0	81.4	
142 Bis(2-ethylhexyl) phthalat	149	13.572	13.572	0.000	97	1370001	80.0	86.5	
143 Di-n-octyl phthalate	149	15.428	15.428	0.000	99	2351698	80.0	88.5	
145 Benzo[b]fluoranthene	252	16.357	16.357	0.000	97	2027491	80.0	81.4	
146 Benzo[k]fluoranthene	252	16.439	16.439	0.000	99	2045177	80.0	81.5	
147 Benzo[a]pyrene	252	17.308	17.308	0.000	78	2011868	80.0	82.9	
150 Indeno[1,2,3-cd]pyrene	276	20.646	20.646	0.000	98	1737882	80.0	84.3	
151 Dibenz(a,h)anthracene	278	20.740	20.740	0.000	94	1735303	80.0	82.7	
152 Benzo[g,h,i]perylene	276	21.398	21.398	0.000	98	1800215	80.0	81.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA080_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141243.D

Injection Date: 12-Nov-2015 12:40:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: ICIS HSL

Worklist Smp#: 3

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

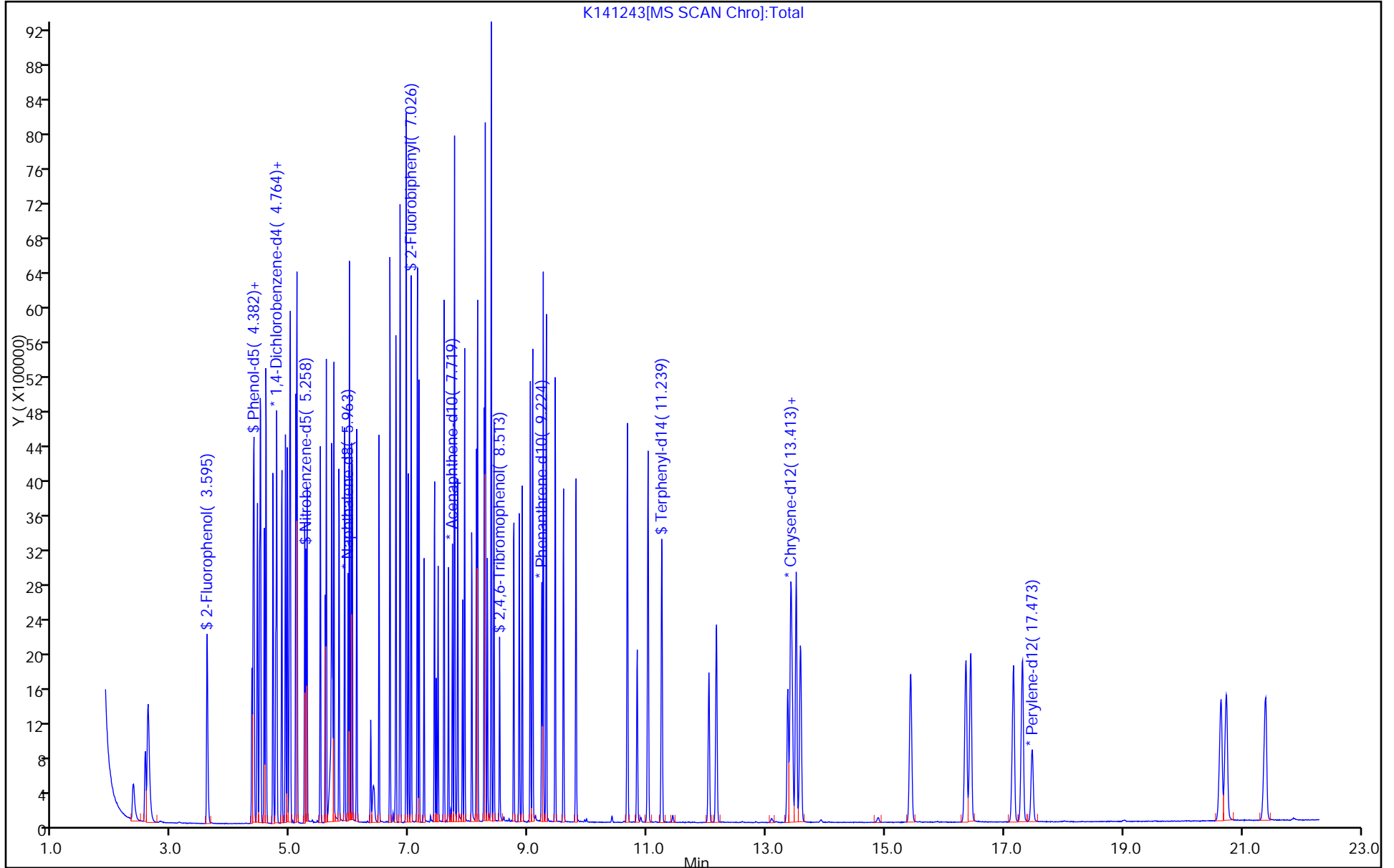
ALS Bottle#: 2

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



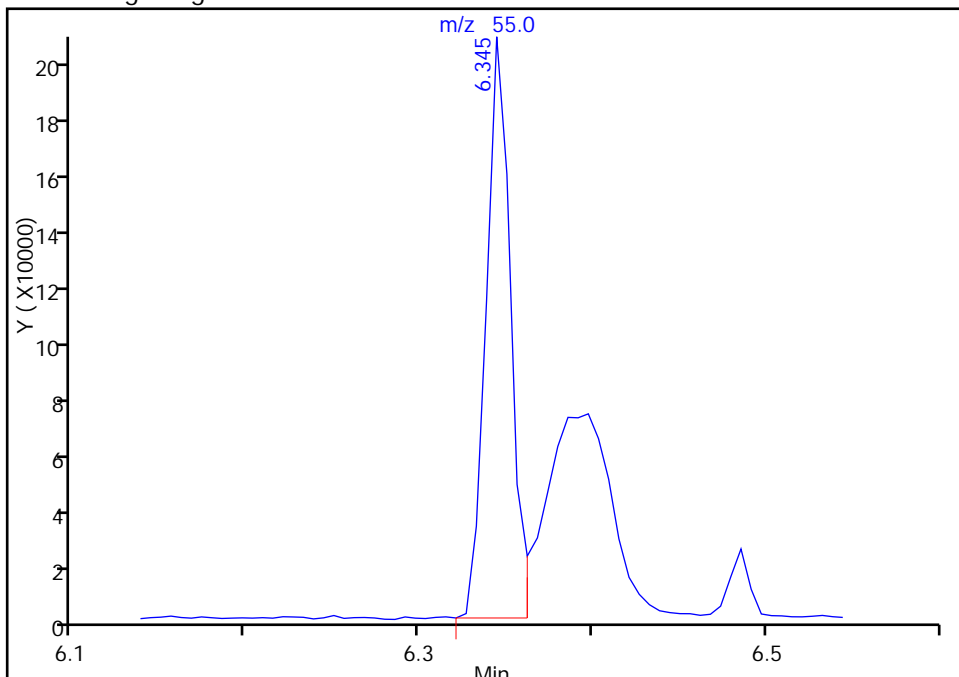
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141243.D
Injection Date: 12-Nov-2015 12:40:30 Instrument ID: SMS_K
Lims ID: ICIS HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

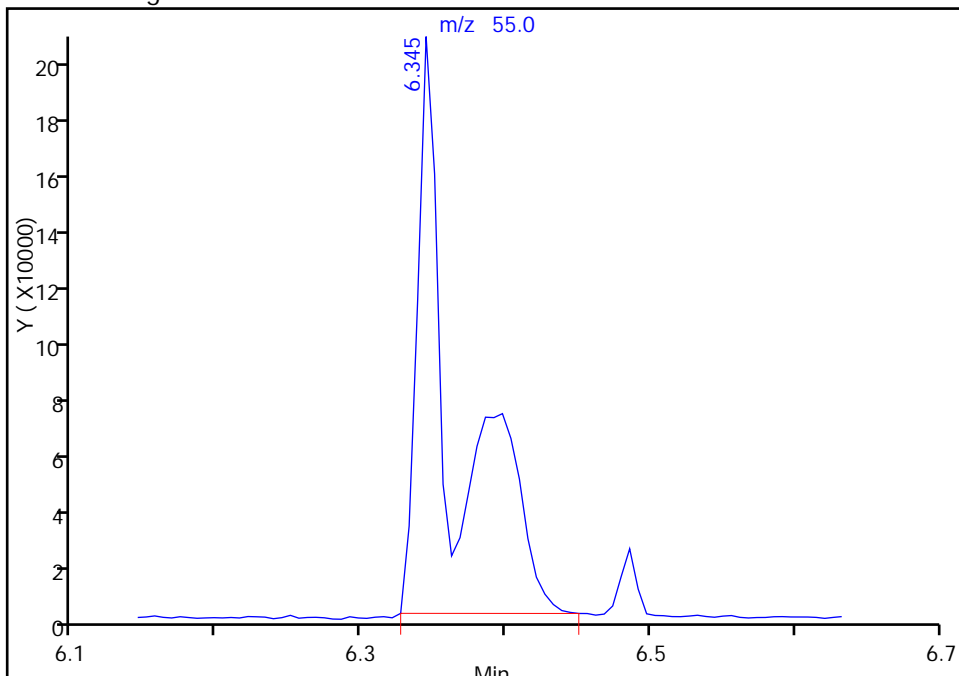
RT: 6.34
Area: 200501
Amount: 80.000000
Amount Units: ug/ml

Processing Integration Results



RT: 6.34
Area: 369434
Amount: 78.140374
Amount Units: ug/ml

Manual Integration Results



Reviewer: kiekeld, 14-Nov-2015 16:28:45
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141244.D
 Lims ID: STD004 HSL
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-Nov-2015 13:08:30 ALS Bottle#: 3 Worklist Smp#: 4
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD004 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:06:58 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:42:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.747	4.746	0.001	96	349488	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	99	1289214	40.0	40.0	
* 3 Acenaphthene-d10	164	7.720	7.719	0.001	90	759466	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	1190095	40.0	40.0	
* 5 Chrysene-d12	240	13.425	13.436	-0.011	98	919810	40.0	40.0	
* 6 Perylene-d12	264	17.455	17.473	-0.018	98	803357	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	95	51197	4.00	4.33	
\$ 8 Phenol-d5	99	4.365	4.370	-0.005	98	64459	4.00	4.40	
\$ 9 Nitrobenzene-d5	82	5.252	5.258	-0.006	91	51578	4.00	4.18	
\$ 10 2-Fluorobiphenyl	172	7.020	7.026	-0.006	99	114928	4.00	4.59	
\$ 11 2,4,6-Tribromophenol	330	8.513	8.513	0.000	90	9696	4.00	3.82	
\$ 12 Terphenyl-d14	244	11.233	11.239	-0.006	99	93812	4.00	4.44	
13 1,4-Dioxane	88	2.355	2.355	0.000	93	20237	4.00	3.87	M
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	89	33076	4.00	4.11	
15 Pyridine	79	2.596	2.602	-0.006	91	58710	4.00	4.17	
22 Phenol	94	4.376	4.382	-0.006	98	66132	4.00	4.48	
23 Aniline	93	4.435	4.441	-0.006	97	78904	4.00	4.27	
24 Bis(2-chloroethyl)ether	93	4.470	4.476	-0.006	97	53546	4.00	4.56	
26 2-Chlorophenol	128	4.553	4.558	-0.005	98	52986	4.00	4.41	
27 1,3-Dichlorobenzene	146	4.700	4.705	-0.005	99	62481	4.00	4.51	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	93	62358	4.00	4.48	
29 Benzyl alcohol	108	4.846	4.852	-0.006	95	34527	4.00	4.38	
30 2-Methylphenol	108	4.940	4.940	0.000	93	48870	4.00	4.49	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	97	60250	4.00	4.54	
32 2,2'-oxybis[1-chloropropan	45	4.976	4.981	-0.005	92	84555	4.00	4.55	
35 3-Methylphenol	108	5.081	5.087	-0.006	92	48904	4.00	4.41	
36 3 & 4 Methylphenol	108	5.081	5.087	-0.006	96	48904	4.00	4.41	
37 4-Methylphenol	108	5.081	5.087	-0.006	95	48904	4.00	4.41	
39 N-Nitrosodi-n-propylamine	70	5.093	5.099	-0.006	93	37499	4.00	4.68	
40 Acetophenone	105	5.105	5.105	0.000	98	70990	4.00	4.75	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	92	22248	4.00	4.46	
44 Nitrobenzene	77	5.269	5.275	-0.006	91	45866	4.00	3.99	
46 Isophorone	82	5.493	5.498	-0.005	98	95406	4.00	4.46	
47 2-Nitrophenol	139	5.581	5.581	0.000	93	19331	4.00	3.68	
48 2,4-Dimethylphenol	107	5.593	5.598	-0.005	93	50003	4.00	4.50	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.001	98	58512	4.00	4.47	
51 Benzoic acid	105	5.622	5.710	-0.088	89	26079	8.00	13.7	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	94	42439	4.00	4.31	
54 1,2,4-Trichlorobenzene	180	5.904	5.910	-0.006	93	53189	4.00	4.62	
55 Naphthalene	128	5.986	5.986	0.000	97	148866	4.00	4.64	
56 4-Chloroaniline	127	6.016	6.021	-0.005	96	64580	4.00	4.54	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	97	43420	4.00	4.48	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	95	28991	4.00	4.57	
60 Caprolactam	55	6.315	6.345	-0.030	77	21801	4.00	4.28	
63 4-Chloro-3-methylphenol	107	6.480	6.486	-0.006	94	39021	4.00	4.36	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	95	106607	4.00	4.61	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	92980	4.00	4.56	
67 Hexachlorocyclopentadiene	237	6.832	6.838	-0.006	95	30406	4.00	4.19	
68 1,2,4,5-Tetrachlorobenzene	216	6.838	6.844	-0.006	96	51729	4.00	4.76	
70 2-Chloronaphthalene	162	7.156	7.161	-0.005	94	96491	4.00	4.53	
71 2,4,6-Trichlorophenol	196	6.938	6.944	-0.006	79	29772	4.00	4.32	
72 2,4,5-Trichlorophenol	196	6.973	6.979	-0.006	94	31435	4.00	4.18	
74 1,1'-Biphenyl	154	7.126	7.132	-0.006	94	125039	4.00	4.50	
76 2-Nitroaniline	65	7.238	7.244	-0.006	83	18010	4.00	3.40	
79 Dimethyl phthalate	163	7.408	7.420	-0.012	99	96022	4.00	4.53	
80 2,6-Dinitrotoluene	165	7.473	7.479	-0.006	93	13832	4.00	2.97	
81 1,3-Dinitrobenzene	168	7.443	7.449	-0.006	83	5540	4.00	9.02	
82 Acenaphthylene	152	7.573	7.578	-0.005	98	150475	4.00	4.57	
83 3-Nitroaniline	138	7.649	7.655	-0.006	95	16029	4.00	3.12	
84 Acenaphthene	153	7.749	7.755	-0.006	92	94427	4.00	4.53	
85 2,4-Dinitrophenol	184	7.749	7.761	-0.012	53	5200	8.00	13.6	
86 4-Nitrophenol	109	7.796	7.808	-0.012	93	16768	8.00	7.01	
88 2,4-Dinitrotoluene	165	7.884	7.890	-0.006	94	13134	4.00	6.14	
89 Dibenzofuran	168	7.919	7.925	-0.006	97	135118	4.00	4.54	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	72	21029	4.00	3.79	
93 Diethyl phthalate	149	8.119	8.125	-0.006	99	89972	4.00	4.47	
95 4-Chlorophenyl phenyl ethe	204	8.248	8.254	-0.006	93	51720	4.00	4.43	
97 Fluorene	166	8.266	8.272	-0.006	96	109076	4.00	4.61	
98 4-Nitroaniline	138	8.260	8.278	-0.018	83	16111	4.00	3.30	
99 4,6-Dinitro-2-methylphenol	198	8.295	8.307	-0.012	83	8723	8.00	15.3	
100 N-Nitrosodiphenylamine	169	8.366	8.372	-0.006	61	152868	8.00	9.38	
102 1,2-Diphenylhydrazine	77	8.413	8.419	-0.006	98	93363	4.04	4.35	
103 Azobenzene	77	8.413	8.419	-0.006	98	93363	4.00	4.30	
109 4-Bromophenyl phenyl ether	248	8.748	8.754	-0.006	66	27417	4.00	4.32	
112 Hexachlorobenzene	284	8.836	8.842	-0.006	92	26337	4.00	4.33	
114 Pentachlorophenol	266	9.024	9.030	-0.006	92	23925	8.00	9.13	
119 Phenanthrene	178	9.241	9.247	-0.006	97	148129	4.00	4.52	
120 Anthracene	178	9.294	9.300	-0.006	96	148652	4.00	4.47	
121 Carbazole	167	9.441	9.447	-0.006	95	128344	4.00	4.28	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	99	132581	4.00	4.16	
128 Fluoranthene	202	10.652	10.663	-0.011	96	146420	4.00	4.24	
129 Pyrene	202	10.998	11.010	-0.012	98	143135	4.00	4.44	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.021	12.032	-0.011	99	42061	4.00	4.10	
136 Butyl benzyl phthalate	149	12.150	12.161	-0.011	97	48254	4.00	3.87	
139 3,3'-Dichlorobenzidine	252	13.348	13.360	-0.012	74	35230	4.00	4.27	
140 Benzo[a]anthracene	228	13.395	13.413	-0.018	98	121759	4.00	4.25	
141 Chrysene	228	13.484	13.501	-0.017	97	117823	4.00	4.30	
142 Bis(2-ethylhexyl) phthalat	149	13.560	13.572	-0.012	97	64064	4.00	3.87	
143 Di-n-octyl phthalate	149	15.417	15.428	-0.011	99	102013	4.00	3.68	
145 Benzo[b]fluoranthene	252	16.327	16.357	-0.030	97	100441	4.00	4.05	
146 Benzo[k]fluoranthene	252	16.415	16.439	-0.024	98	99140	4.00	3.97	
147 Benzo[a]pyrene	252	17.273	17.308	-0.035	77	96245	4.00	3.98	
150 Indeno[1,2,3-cd]pyrene	276	20.617	20.646	-0.030	98	81140	4.00	3.77	
151 Dibenz(a,h)anthracene	278	20.705	20.740	-0.035	93	80590	4.00	3.86	
152 Benzo[g,h,i]perylene	276	21.357	21.398	-0.041	97	87873	4.00	4.01	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA004_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141244.D

Injection Date: 12-Nov-2015 13:08:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD004 HSL

Worklist Smp#: 4

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

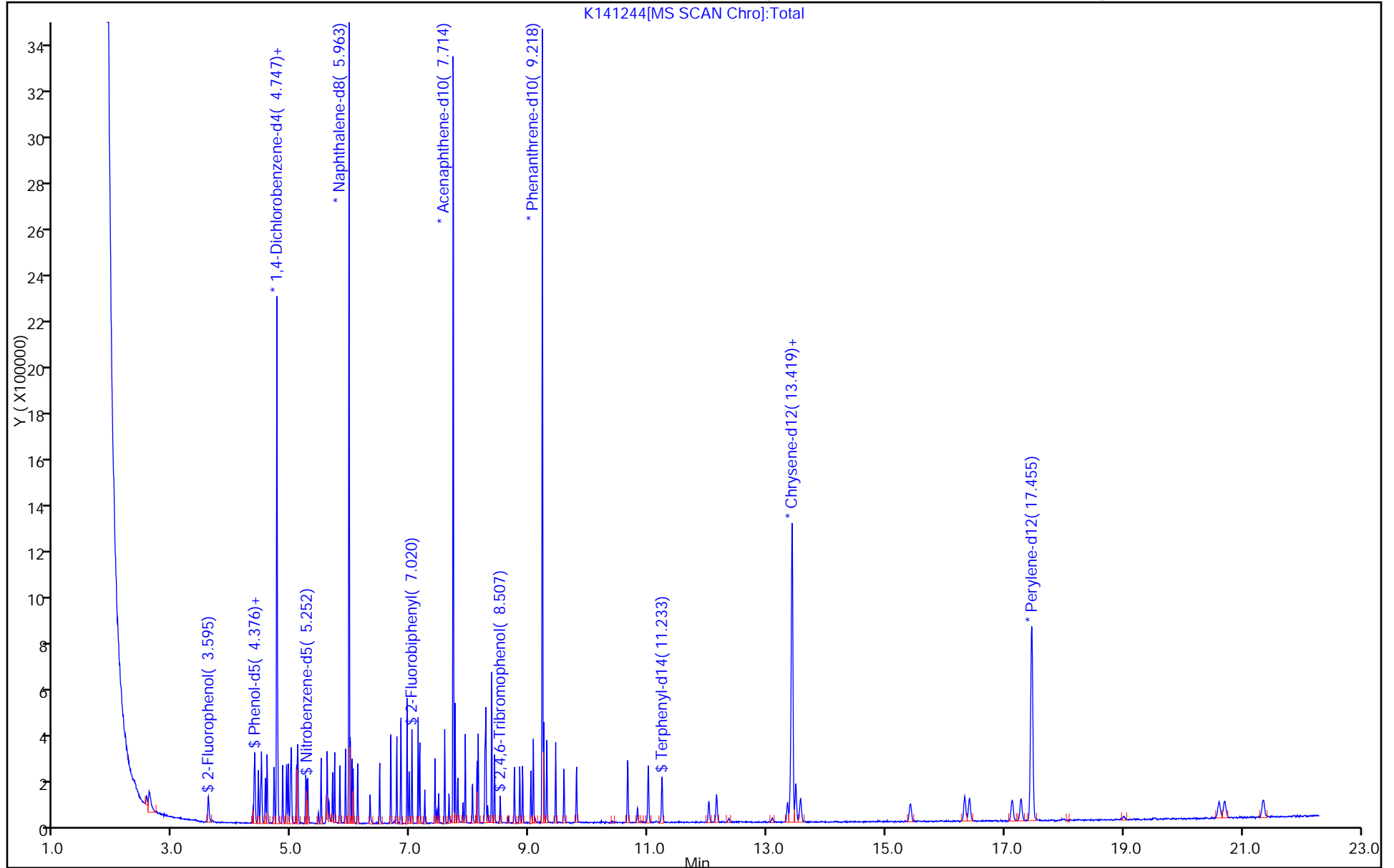
ALS Bottle#: 3

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



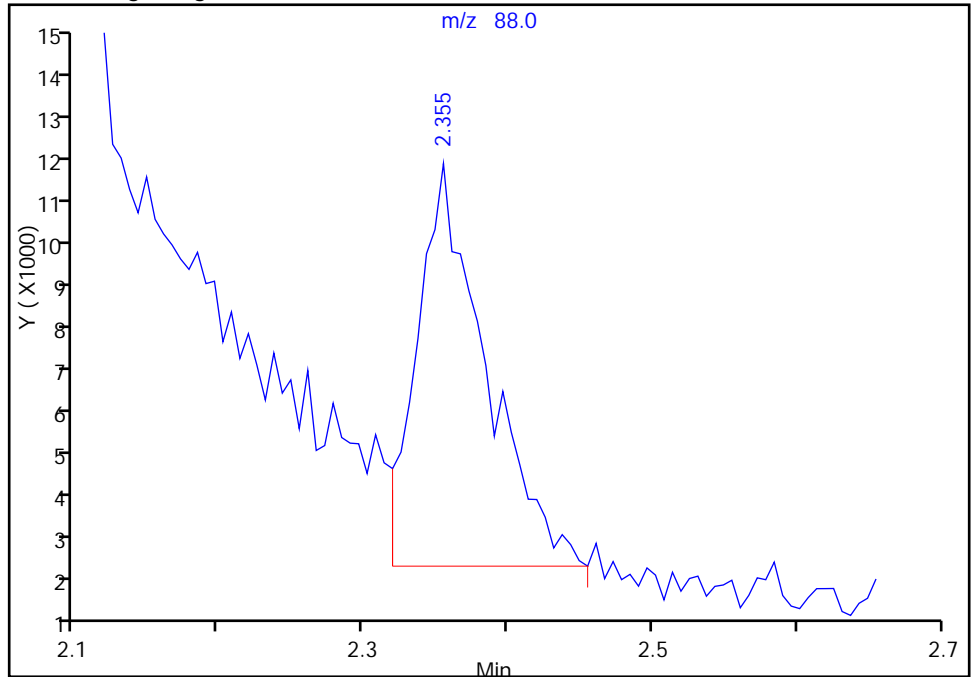
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141244.D
Injection Date: 12-Nov-2015 13:08:30 Instrument ID: SMS_K
Lims ID: STD004 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

13 1,4-Dioxane, CAS: 123-91-1

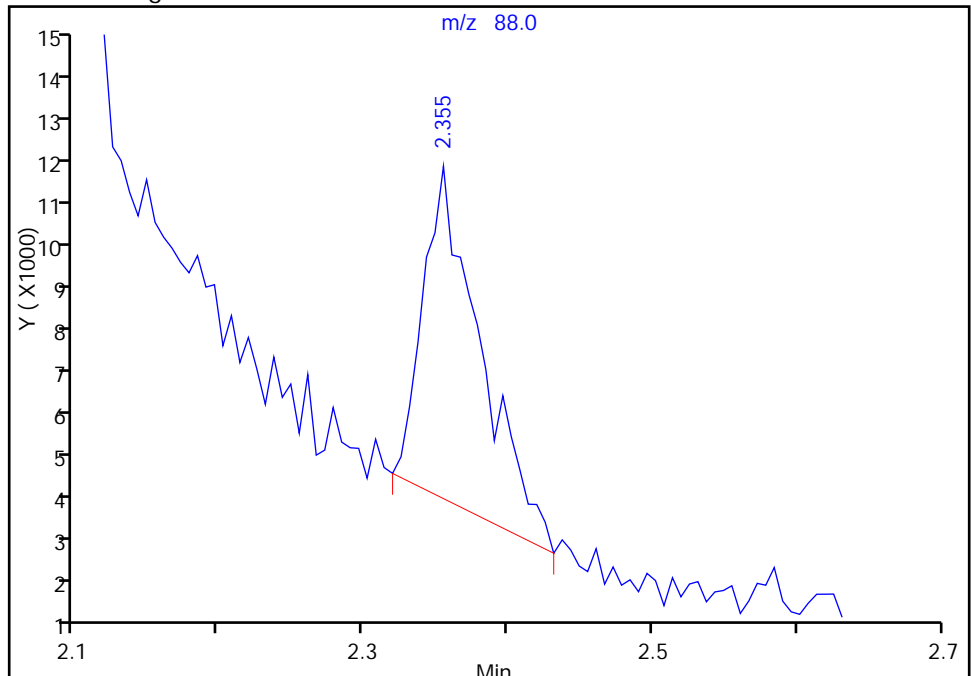
RT: 2.36
Area: 29751
Amount: 5.386921
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 20237
Amount: 3.872733
Amount Units: ug/ml

Manual Integration Results



Reviewer: kiekeld, 16-Nov-2015 09:01:42
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141245.D
 Lims ID: STD010 HSL
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-Nov-2015 13:35:30 ALS Bottle#: 4 Worklist Smp#: 5
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD010 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:03 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:43:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.747	4.746	0.000	96	333897	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	99	1210214	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.719	-0.005	90	703763	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	1083306	40.0	40.0	
* 5 Chrysene-d12	240	13.419	13.436	-0.017	98	887874	40.0	40.0	
* 6 Perylene-d12	264	17.455	17.473	-0.018	98	762357	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	93	111512	10.0	9.87	
\$ 8 Phenol-d5	99	4.365	4.370	-0.005	99	145686	10.0	10.4	
\$ 9 Nitrobenzene-d5	82	5.252	5.258	-0.006	93	115585	10.0	9.99	
\$ 10 2-Fluorobiphenyl	172	7.020	7.026	-0.006	100	247106	10.0	10.6	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.513	-0.006	91	22892	10.0	9.73	
\$ 12 Terphenyl-d14	244	11.227	11.239	-0.012	99	213549	10.0	10.5	
13 1,4-Dioxane	88	2.349	2.355	-0.006	96	50961	10.0	10.2	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	89	76659	10.0	9.96	
15 Pyridine	79	2.608	2.602	0.006	88	132960	10.0	9.89	
22 Phenol	94	4.376	4.382	-0.006	99	144809	10.0	10.3	
23 Aniline	93	4.435	4.441	-0.006	97	179066	10.0	10.1	
24 Bis(2-chloroethyl)ether	93	4.476	4.476	0.000	97	117010	10.0	10.4	
26 2-Chlorophenol	128	4.553	4.558	-0.005	97	118340	10.0	10.3	
27 1,3-Dichlorobenzene	146	4.700	4.705	-0.005	98	137548	10.0	10.4	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	97	140607	10.0	10.6	
29 Benzyl alcohol	108	4.846	4.852	-0.006	94	78675	10.0	10.4	
30 2-Methylphenol	108	4.940	4.940	0.000	96	107885	10.0	10.4	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	129821	10.0	10.2	
32 2,2'-oxybis[1-chloropropan	45	4.976	4.981	-0.005	93	184937	10.0	10.4	
35 3-Methylphenol	108	5.081	5.087	-0.006	92	111040	10.0	10.5	
36 3 & 4 Methylphenol	108	5.081	5.087	-0.006	96	111040	10.0	10.5	
37 4-Methylphenol	108	5.081	5.087	-0.006	93	111040	10.0	10.5	
39 N-Nitrosodi-n-propylamine	70	5.093	5.099	-0.006	94	83527	10.0	10.9	
40 Acetophenone	105	5.105	5.105	0.000	98	156312	10.0	10.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	93	49506	10.0	10.4	
44 Nitrobenzene	77	5.269	5.275	-0.006	92	106222	10.0	9.86	
46 Isophorone	82	5.493	5.498	-0.005	98	213258	10.0	10.6	
47 2-Nitrophenol	139	5.581	5.581	0.000	93	42694	10.0	8.67	
48 2,4-Dimethylphenol	107	5.593	5.598	-0.005	95	109648	10.0	10.5	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.001	99	131051	10.0	10.7	
51 Benzoic acid	105	5.640	5.710	-0.070	89	78235	20.0	21.1	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	92	97502	10.0	10.6	
54 1,2,4-Trichlorobenzene	180	5.904	5.910	-0.006	94	113813	10.0	10.5	
55 Naphthalene	128	5.980	5.986	-0.006	98	322769	10.0	10.7	
56 4-Chloroaniline	127	6.016	6.021	-0.005	96	139702	10.0	10.5	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	98	95531	10.0	10.5	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	95	62031	10.0	10.4	
60 Caprolactam	55	6.321	6.345	-0.024	78	48704	10.0	10.2	
63 4-Chloro-3-methylphenol	107	6.480	6.486	-0.006	94	87685	10.0	10.4	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	95	234604	10.0	10.8	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	96	208188	10.0	10.9	
67 Hexachlorocyclopentadiene	237	6.832	6.838	-0.006	95	68735	10.0	10.2	
68 1,2,4,5-Tetrachlorobenzene	216	6.838	6.844	-0.006	96	112400	10.0	11.0	
70 2-Chloronaphthalene	162	7.155	7.161	-0.006	95	209857	10.0	10.6	
71 2,4,6-Trichlorophenol	196	6.938	6.944	-0.006	79	67281	10.0	10.5	
72 2,4,5-Trichlorophenol	196	6.973	6.979	-0.006	94	70695	10.0	10.1	
74 1,1'-Biphenyl	154	7.126	7.132	-0.006	94	277846	10.0	10.8	
76 2-Nitroaniline	65	7.238	7.244	-0.006	84	43101	10.0	8.77	
79 Dimethyl phthalate	163	7.408	7.420	-0.012	99	203657	10.0	10.4	
80 2,6-Dinitrotoluene	165	7.473	7.479	-0.006	96	35293	10.0	8.18	
81 1,3-Dinitrobenzene	168	7.443	7.449	-0.006	86	14297	10.0	12.0	
82 Acenaphthylene	152	7.573	7.578	-0.005	98	326728	10.0	10.7	
83 3-Nitroaniline	138	7.643	7.655	-0.012	93	39366	10.0	8.27	
84 Acenaphthene	153	7.749	7.755	-0.006	92	210329	10.0	10.9	
85 2,4-Dinitrophenol	184	7.749	7.761	-0.012	54	15515	20.0	20.9	
86 4-Nitrophenol	109	7.796	7.808	-0.012	92	37156	20.0	16.8	
88 2,4-Dinitrotoluene	165	7.884	7.890	-0.006	95	36010	10.0	10.2	
89 Dibenzofuran	168	7.919	7.925	-0.006	97	292071	10.0	10.6	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	72	47979	10.0	9.33	
93 Diethyl phthalate	149	8.119	8.125	-0.006	99	197303	10.0	10.6	
95 4-Chlorophenyl phenyl ethe	204	8.254	8.254	0.000	87	116623	10.0	10.8	
97 Fluorene	166	8.266	8.272	-0.006	94	236347	10.0	10.8	
98 4-Nitroaniline	138	8.260	8.278	-0.018	83	38626	10.0	8.55	
99 4,6-Dinitro-2-methylphenol	198	8.295	8.307	-0.012	86	26187	20.0	21.1	
100 N-Nitrosodiphenylamine	169	8.366	8.372	-0.006	62	326476	20.0	22.0	
102 1,2-Diphenylhydrazine	77	8.413	8.419	-0.006	99	209856	10.1	10.6	
103 Azobenzene	77	8.413	8.419	-0.006	99	209856	10.0	10.4	
109 4-Bromophenyl phenyl ether	248	8.748	8.754	-0.006	67	59213	10.0	10.3	
112 Hexachlorobenzene	284	8.836	8.842	-0.006	93	59243	10.0	10.7	
114 Pentachlorophenol	266	9.024	9.030	-0.006	92	58977	20.0	19.9	
119 Phenanthrene	178	9.241	9.247	-0.006	97	318456	10.0	10.7	
120 Anthracene	178	9.294	9.300	-0.006	97	321978	10.0	10.6	
121 Carbazole	167	9.441	9.447	-0.006	95	283769	10.0	10.4	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	99	294967	10.0	10.2	
128 Fluoranthene	202	10.651	10.663	-0.012	97	316336	10.0	10.1	
129 Pyrene	202	10.998	11.010	-0.012	98	329059	10.0	10.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.020	12.032	-0.012	99	98970	10.0	10.0	
136 Butyl benzyl phthalate	149	12.150	12.161	-0.011	97	117014	10.0	9.73	
139 3,3'-Dichlorobenzidine	252	13.342	13.360	-0.018	73	79057	10.0	9.92	
140 Benzo[a]anthracene	228	13.395	13.413	-0.018	98	277099	10.0	10.0	
141 Chrysene	228	13.483	13.501	-0.018	97	263782	10.0	9.97	
142 Bis(2-ethylhexyl) phthalat	149	13.560	13.572	-0.012	98	148322	10.0	9.29	
143 Di-n-octyl phthalate	149	15.411	15.428	-0.017	99	238906	10.0	8.92	
145 Benzo[b]fluoranthene	252	16.327	16.357	-0.030	97	233243	10.0	9.92	
146 Benzo[k]fluoranthene	252	16.410	16.439	-0.029	99	232580	10.0	9.82	
147 Benzo[a]pyrene	252	17.273	17.308	-0.035	77	224799	10.0	9.81	
150 Indeno[1,2,3-cd]pyrene	276	20.605	20.646	-0.041	99	186062	10.0	8.95	
151 Dibenz(a,h)anthracene	278	20.710	20.740	-0.030	93	184756	10.0	9.33	
152 Benzo[g,h,i]perylene	276	21.351	21.398	-0.047	98	196940	10.0	9.47	

Reagents:

MS-HSLA010_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141245.D

Injection Date: 12-Nov-2015 13:35:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD010 HSL

Worklist Smp#: 5

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

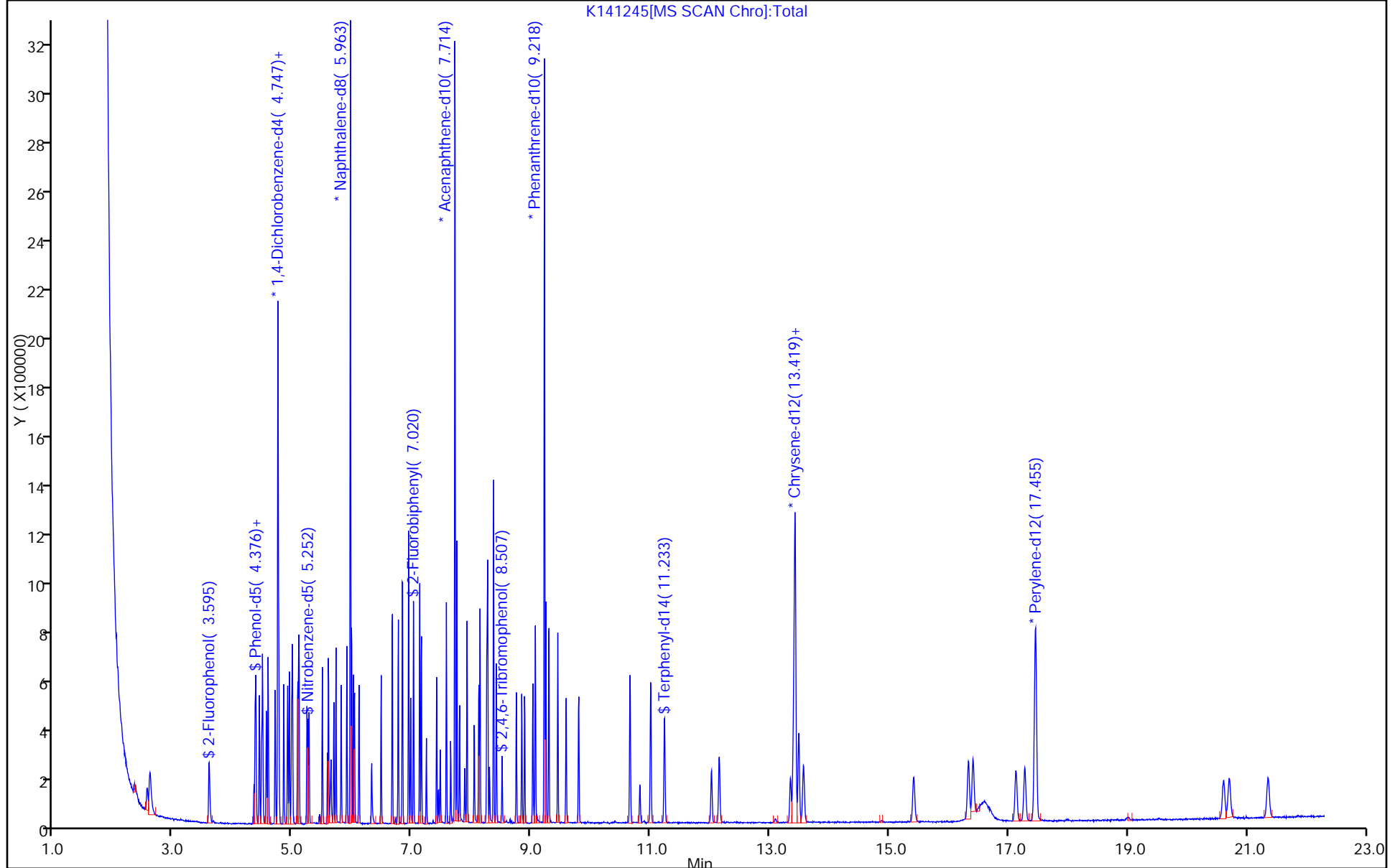
ALS Bottle#: 4

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141246.D
 Lims ID: STD020 HSL
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-Nov-2015 14:03:30 ALS Bottle#: 5 Worklist Smp#: 6
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD020 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:07 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:44:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.747	4.746	0.001	96	329606	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	99	1178456	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.719	-0.005	90	692808	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	1072858	40.0	40.0	
* 5 Chrysene-d12	240	13.419	13.436	-0.017	98	893292	40.0	40.0	
* 6 Perylene-d12	264	17.455	17.473	-0.018	98	778573	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	94	222016	20.0	19.9	
\$ 8 Phenol-d5	99	4.365	4.370	-0.005	99	275437	20.0	19.9	
\$ 9 Nitrobenzene-d5	82	5.252	5.258	-0.006	92	212179	20.0	18.8	
\$ 10 2-Fluorobiphenyl	172	7.020	7.026	-0.006	100	469360	20.0	20.5	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.513	-0.006	91	45720	20.0	19.7	
\$ 12 Terphenyl-d14	244	11.233	11.239	-0.006	99	416853	20.0	20.3	
13 1,4-Dioxane	88	2.355	2.355	0.000	97	104865	20.0	21.3	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	92	148919	20.0	19.6	
15 Pyridine	79	2.602	2.602	0.000	89	259774	20.0	19.6	
22 Phenol	94	4.376	4.382	-0.006	99	283296	20.0	20.4	
23 Aniline	93	4.435	4.441	-0.006	97	354579	20.0	20.3	
24 Bis(2-chloroethyl)ether	93	4.470	4.476	-0.006	96	223469	20.0	20.2	
26 2-Chlorophenol	128	4.553	4.558	-0.005	98	230071	20.0	20.3	
27 1,3-Dichlorobenzene	146	4.700	4.705	-0.005	99	261673	20.0	20.0	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	96	265166	20.0	20.2	
29 Benzyl alcohol	108	4.846	4.852	-0.006	93	148046	20.0	19.9	
30 2-Methylphenol	108	4.940	4.940	0.000	95	205097	20.0	20.0	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	255401	20.0	20.4	
32 2,2'-oxybis[1-chloropropan	45	4.976	4.981	-0.005	93	352787	20.0	20.1	
35 3-Methylphenol	108	5.081	5.087	-0.006	92	213997	20.0	20.4	
36 3 & 4 Methylphenol	108	5.081	5.087	-0.006	97	213997	20.0	20.4	
37 4-Methylphenol	108	5.081	5.087	-0.006	93	213997	20.0	20.4	
39 N-Nitrosodi-n-propylamine	70	5.093	5.099	-0.006	94	152660	20.0	20.2	
40 Acetophenone	105	5.105	5.105	0.000	97	291305	20.0	20.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	94	94899	20.0	20.2	
44 Nitrobenzene	77	5.269	5.275	-0.006	91	210393	20.0	20.0	
46 Isophorone	82	5.493	5.498	-0.005	99	404848	20.0	20.7	
47 2-Nitrophenol	139	5.581	5.581	0.000	92	91152	20.0	19.0	
48 2,4-Dimethylphenol	107	5.593	5.598	-0.005	94	208962	20.0	20.6	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.001	99	246599	20.0	20.6	
51 Benzoic acid	105	5.651	5.710	-0.059	95	182091	40.0	36.2	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	93	183393	20.0	20.4	
54 1,2,4-Trichlorobenzene	180	5.904	5.910	-0.006	94	213859	20.0	20.3	
55 Naphthalene	128	5.980	5.986	-0.006	97	621740	20.0	21.2	
56 4-Chloroaniline	127	6.016	6.021	-0.005	97	273691	20.0	21.1	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	98	182665	20.0	20.6	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	94	120643	20.0	20.8	
60 Caprolactam	55	6.321	6.345	-0.024	76	91919	20.0	19.7	
63 4-Chloro-3-methylphenol	107	6.480	6.486	-0.006	96	168585	20.0	20.6	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	95	449659	20.0	21.3	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	392477	20.0	21.0	
67 Hexachlorocyclopentadiene	237	6.832	6.838	-0.006	96	129454	20.0	19.6	
68 1,2,4,5-Tetrachlorobenzene	216	6.838	6.844	-0.006	96	213947	20.0	21.6	
70 2-Chloronaphthalene	162	7.156	7.161	-0.005	95	399715	20.0	20.6	
71 2,4,6-Trichlorophenol	196	6.938	6.944	-0.006	79	131864	20.0	21.0	
72 2,4,5-Trichlorophenol	196	6.973	6.979	-0.006	94	137684	20.0	20.1	
74 1,1'-Biphenyl	154	7.126	7.132	-0.006	94	523159	20.0	20.6	
76 2-Nitroaniline	65	7.238	7.244	-0.006	85	90301	20.0	18.7	
79 Dimethyl phthalate	163	7.408	7.420	-0.012	99	393463	20.0	20.4	
80 2,6-Dinitrotoluene	165	7.473	7.479	-0.006	95	75759	20.0	17.8	
81 1,3-Dinitrobenzene	168	7.443	7.449	-0.006	87	34665	20.0	18.9	
82 Acenaphthylene	152	7.573	7.578	-0.005	98	619064	20.0	20.6	
83 3-Nitroaniline	138	7.643	7.655	-0.012	95	89449	20.0	19.1	
84 Acenaphthene	153	7.749	7.755	-0.006	93	402801	20.0	21.2	
85 2,4-Dinitrophenol	184	7.749	7.761	-0.012	59	43714	40.0	39.7	
86 4-Nitrophenol	109	7.796	7.808	-0.012	95	83729	40.0	38.4	
88 2,4-Dinitrotoluene	165	7.884	7.890	-0.006	95	87180	20.0	19.3	
89 Dibenzofuran	168	7.919	7.925	-0.006	98	566925	20.0	20.9	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	72	100231	20.0	19.8	
93 Diethyl phthalate	149	8.119	8.125	-0.006	99	383004	20.0	20.8	
95 4-Chlorophenyl phenyl ethe	204	8.248	8.254	-0.006	92	218896	20.0	20.5	
97 Fluorene	166	8.266	8.272	-0.006	94	451974	20.0	20.9	
98 4-Nitroaniline	138	8.260	8.278	-0.018	86	87353	20.0	19.6	
99 4,6-Dinitro-2-methylphenol	198	8.301	8.307	-0.006	91	74784	40.0	36.7	
100 N-Nitrosodiphenylamine	169	8.366	8.372	-0.006	61	643073	40.0	43.8	
102 1,2-Diphenylhydrazine	77	8.413	8.419	-0.006	98	409704	20.2	20.9	
103 Azobenzene	77	8.413	8.419	-0.006	99	409704	20.0	20.7	
109 4-Bromophenyl phenyl ether	248	8.748	8.754	-0.006	66	116331	20.0	20.4	
112 Hexachlorobenzene	284	8.836	8.842	-0.006	93	115609	20.0	21.1	
114 Pentachlorophenol	266	9.024	9.030	-0.006	92	127053	40.0	39.9	
119 Phenanthrene	178	9.241	9.247	-0.006	97	626782	20.0	21.2	
120 Anthracene	178	9.294	9.300	-0.006	97	638701	20.0	21.3	
121 Carbazole	167	9.441	9.447	-0.006	95	563845	20.0	20.9	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	100	586090	20.0	20.4	
128 Fluoranthene	202	10.651	10.663	-0.012	97	630822	20.0	20.2	
129 Pyrene	202	10.998	11.010	-0.012	98	645635	20.0	20.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.021	12.032	-0.012	99	198177	20.0	19.9	
136 Butyl benzyl phthalate	149	12.150	12.161	-0.011	97	238144	20.0	19.7	
139 3,3'-Dichlorobenzidine	252	13.343	13.360	-0.018	73	154288	20.0	19.2	
140 Benzo[a]anthracene	228	13.395	13.413	-0.018	98	550444	20.0	19.8	
141 Chrysene	228	13.484	13.501	-0.017	97	523915	20.0	19.7	
142 Bis(2-ethylhexyl) phthalat	149	13.566	13.572	-0.006	97	307235	20.0	19.1	
143 Di-n-octyl phthalate	149	15.411	15.428	-0.017	99	498124	20.0	18.5	
145 Benzo[b]fluoranthene	252	16.333	16.357	-0.024	97	466697	20.0	19.4	
146 Benzo[k]fluoranthene	252	16.410	16.439	-0.029	99	483883	20.0	20.0	
147 Benzo[a]pyrene	252	17.273	17.308	-0.035	77	450887	20.0	19.3	
150 Indeno[1,2,3-cd]pyrene	276	20.611	20.646	-0.035	98	388425	20.0	18.6	
151 Dibenz(a,h)anthracene	278	20.705	20.740	-0.035	93	389213	20.0	19.2	
152 Benzo[g,h,i]perylene	276	21.357	21.398	-0.041	98	411004	20.0	19.4	

Reagents:

MS-HSLA020_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141246.D

Injection Date: 12-Nov-2015 14:03:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD020 HSL

Worklist Smp#: 6

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

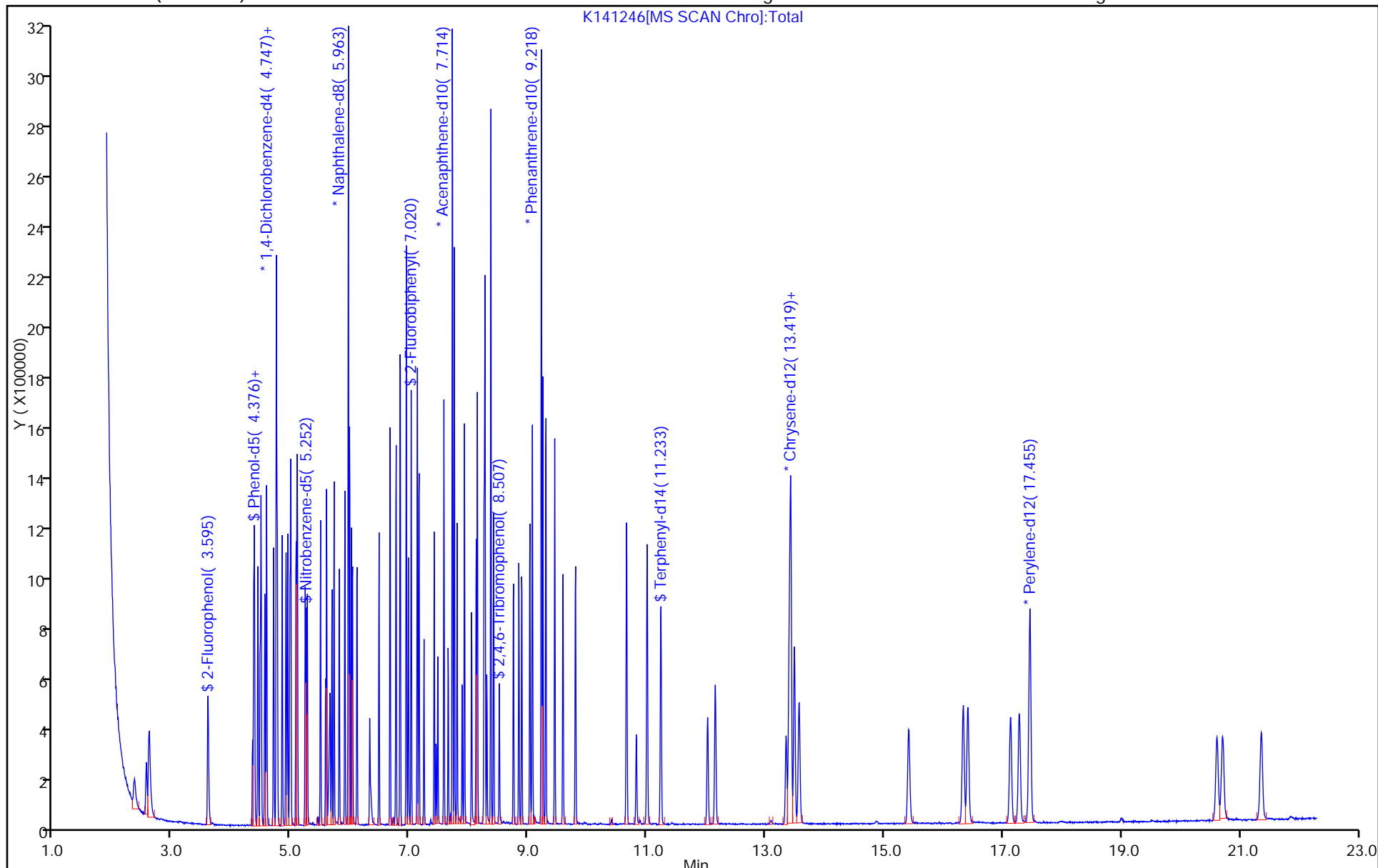
ALS Bottle#: 5

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141247.D
 Lims ID: STD050 HSL
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-Nov-2015 14:31:30 ALS Bottle#: 6 Worklist Smp#: 7
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD050 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:12 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:46:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.746	4.746	0.000	96	325279	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	99	1159696	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.719	-0.005	91	658067	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	1044399	40.0	40.0	
* 5 Chrysene-d12	240	13.425	13.436	-0.011	98	877667	40.0	40.0	
* 6 Perylene-d12	264	17.455	17.473	-0.018	98	786875	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	94	555096	50.0	50.4	
\$ 8 Phenol-d5	99	4.370	4.370	0.000	97	701428	50.0	51.4	
\$ 9 Nitrobenzene-d5	82	5.252	5.258	-0.006	92	538029	50.0	48.5	
\$ 10 2-Fluorobiphenyl	172	7.020	7.026	-0.006	100	1112882	50.0	51.3	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.513	-0.006	91	113005	50.0	51.4	
\$ 12 Terphenyl-d14	244	11.233	11.239	-0.006	99	1017696	50.0	50.5	
13 1,4-Dioxane	88	2.355	2.355	0.000	99	243087	50.0	50.0	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	90	384153	50.0	51.2	
15 Pyridine	79	2.602	2.602	0.000	89	664421	50.0	50.7	
22 Phenol	94	4.382	4.382	0.000	99	701567	50.0	51.1	
23 Aniline	93	4.435	4.441	-0.006	97	878215	50.0	51.0	
24 Bis(2-chloroethyl)ether	93	4.476	4.476	0.000	96	549879	50.0	50.3	
26 2-Chlorophenol	128	4.552	4.558	-0.006	98	566635	50.0	50.6	
27 1,3-Dichlorobenzene	146	4.699	4.705	-0.006	99	663312	50.0	51.5	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	95	661519	50.0	51.1	
29 Benzyl alcohol	108	4.846	4.852	-0.006	93	373664	50.0	50.9	
30 2-Methylphenol	108	4.940	4.940	0.000	96	518335	50.0	51.2	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	634721	50.0	51.3	
32 2,2'-oxybis[1-chloropropan	45	4.976	4.981	-0.005	93	869868	50.0	50.3	
35 3-Methylphenol	108	5.081	5.087	-0.006	92	535736	50.0	51.9	
36 3 & 4 Methylphenol	108	5.081	5.087	-0.006	98	535736	50.0	51.9	
37 4-Methylphenol	108	5.081	5.087	-0.006	94	535736	50.0	51.9	
39 N-Nitrosodi-n-propylamine	70	5.093	5.099	-0.006	94	380702	50.0	51.0	
40 Acetophenone	105	5.105	5.105	0.000	96	713929	50.0	51.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	92	236986	50.0	51.0	
44 Nitrobenzene	77	5.269	5.275	-0.006	93	538293	50.0	52.1	
46 Isophorone	82	5.493	5.498	-0.005	99	976299	50.0	50.7	
47 2-Nitrophenol	139	5.581	5.581	0.000	94	246318	50.0	52.2	
48 2,4-Dimethylphenol	107	5.598	5.598	0.000	94	508536	50.0	50.9	
50 Bis(2-chloroethoxy)methane	93	5.686	5.687	0.000	99	603087	50.0	51.3	
51 Benzoic acid	105	5.686	5.710	-0.024	91	597449	100.0	96.5	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	93	453135	50.0	51.2	
54 1,2,4-Trichlorobenzene	180	5.904	5.910	-0.006	94	532404	50.0	51.4	
55 Naphthalene	128	5.986	5.986	0.000	97	1493745	50.0	51.8	
56 4-Chloroaniline	127	6.016	6.021	-0.005	96	664838	50.0	52.0	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	97	445010	50.0	51.0	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	95	289571	50.0	50.8	
60 Caprolactam	55	6.333	6.345	-0.012	77	233836	50.0	51.0	M
63 4-Chloro-3-methylphenol	107	6.480	6.486	-0.006	96	413766	50.0	51.4	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	94	1071990	50.0	51.5	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	947294	50.0	51.6	
67 Hexachlorocyclopentadiene	237	6.832	6.838	-0.006	95	330516	50.0	52.6	
68 1,2,4,5-Tetrachlorobenzene	216	6.838	6.844	-0.006	96	503098	50.0	51.5	
70 2-Chloronaphthalene	162	7.155	7.161	-0.006	95	949843	50.0	51.4	
71 2,4,6-Trichlorophenol	196	6.938	6.944	-0.006	81	320444	50.0	53.6	
72 2,4,5-Trichlorophenol	196	6.979	6.979	0.000	94	331318	50.0	50.8	
74 1,1'-Biphenyl	154	7.126	7.132	-0.006	94	1249897	50.0	51.9	
76 2-Nitroaniline	65	7.238	7.244	-0.006	86	247566	50.0	53.9	
79 Dimethyl phthalate	163	7.414	7.420	-0.006	99	943901	50.0	51.4	
80 2,6-Dinitrotoluene	165	7.473	7.479	-0.006	96	213088	50.0	52.8	
81 1,3-Dinitrobenzene	168	7.443	7.449	-0.006	86	113439	50.0	47.4	
82 Acenaphthylene	152	7.573	7.578	-0.005	98	1485260	50.0	52.0	
83 3-Nitroaniline	138	7.649	7.655	-0.006	95	238214	50.0	53.5	
84 Acenaphthene	153	7.749	7.755	-0.006	92	933624	50.0	51.7	
85 2,4-Dinitrophenol	184	7.755	7.761	-0.006	82	153120	100.0	107.0	
86 4-Nitrophenol	109	7.802	7.808	-0.006	95	212097	100.0	102.3	
88 2,4-Dinitrotoluene	165	7.884	7.890	-0.006	95	245470	50.0	49.2	
89 Dibenzofuran	168	7.919	7.925	-0.006	98	1336255	50.0	51.8	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	71	257806	50.0	53.6	
93 Diethyl phthalate	149	8.119	8.125	-0.006	99	894511	50.0	51.2	
95 4-Chlorophenyl phenyl ethe	204	8.254	8.254	0.000	89	523686	50.0	51.7	
97 Fluorene	166	8.266	8.272	-0.006	95	1063281	50.0	51.9	
98 4-Nitroaniline	138	8.266	8.278	-0.012	58	223911	50.0	53.0	
99 4,6-Dinitro-2-methylphenol	198	8.301	8.307	-0.006	88	254085	100.0	96.4	
100 N-Nitrosodiphenylamine	169	8.366	8.372	-0.006	63	1469526	100.0	102.7	
102 1,2-Diphenylhydrazine	77	8.413	8.419	-0.006	98	963838	50.5	51.8	
103 Azobenzene	77	8.413	8.419	-0.006	99	963838	50.0	51.3	
109 4-Bromophenyl phenyl ether	248	8.748	8.754	-0.006	66	288723	50.0	51.9	
112 Hexachlorobenzene	284	8.842	8.842	0.000	93	270163	50.0	50.7	
114 Pentachlorophenol	266	9.024	9.030	-0.006	93	335079	100.0	103.2	
119 Phenanthrene	178	9.241	9.247	-0.006	97	1470154	50.0	51.1	
120 Anthracene	178	9.294	9.300	-0.006	97	1491352	50.0	51.1	
121 Carbazole	167	9.441	9.447	-0.006	95	1329601	50.0	50.5	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	100	1423344	50.0	50.9	
128 Fluoranthene	202	10.657	10.663	-0.006	97	1534289	50.0	50.6	
129 Pyrene	202	11.004	11.010	-0.006	98	1567876	50.0	51.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.026	12.032	-0.006	99	519899	50.0	53.2	
136 Butyl benzyl phthalate	149	12.150	12.161	-0.011	97	611576	50.0	51.4	
139 3,3'-Dichlorobenzidine	252	13.348	13.360	-0.012	73	386223	50.0	49.0	
140 Benzo[a]anthracene	228	13.401	13.413	-0.012	98	1380523	50.0	50.5	
141 Chrysene	228	13.489	13.501	-0.012	97	1332028	50.0	50.9	
142 Bis(2-ethylhexyl) phthalat	149	13.560	13.572	-0.012	97	798714	50.0	50.6	
143 Di-n-octyl phthalate	149	15.416	15.428	-0.012	99	1357389	50.0	51.2	
145 Benzo[b]fluoranthene	252	16.339	16.357	-0.018	97	1229916	50.0	50.7	
146 Benzo[k]fluoranthene	252	16.415	16.439	-0.024	99	1254685	50.0	51.3	
147 Benzo[a]pyrene	252	17.285	17.308	-0.023	77	1209744	50.0	51.1	
150 Indeno[1,2,3-cd]pyrene	276	20.622	20.646	-0.024	99	1045804	50.0	50.9	
151 Dibenz(a,h)anthracene	278	20.716	20.740	-0.024	94	1046103	50.0	51.2	
152 Benzo[g,h,i]perylene	276	21.368	21.398	-0.030	97	1088680	50.0	50.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA050_00021

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141247.D

Injection Date: 12-Nov-2015 14:31:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD050 HSL

Worklist Smp#: 7

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

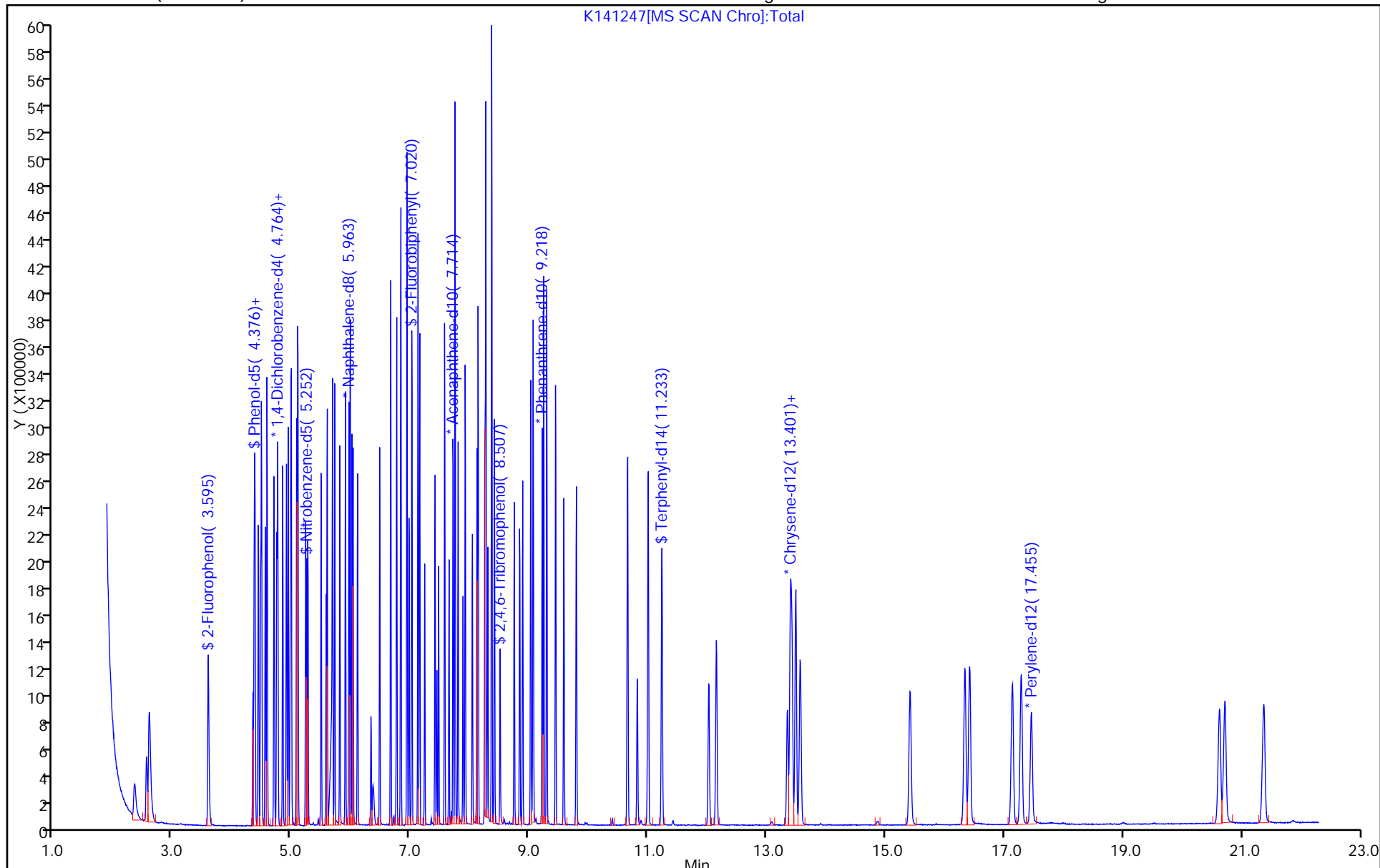
ALS Bottle#: 6

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



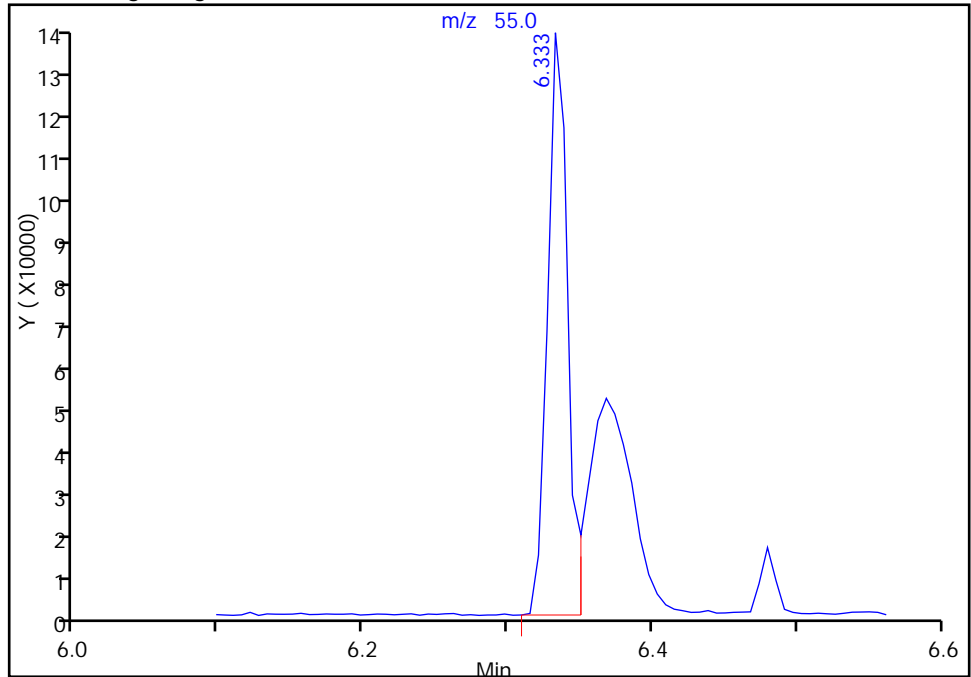
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141247.D
Injection Date: 12-Nov-2015 14:31:30 Instrument ID: SMS_K
Lims ID: STD050 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

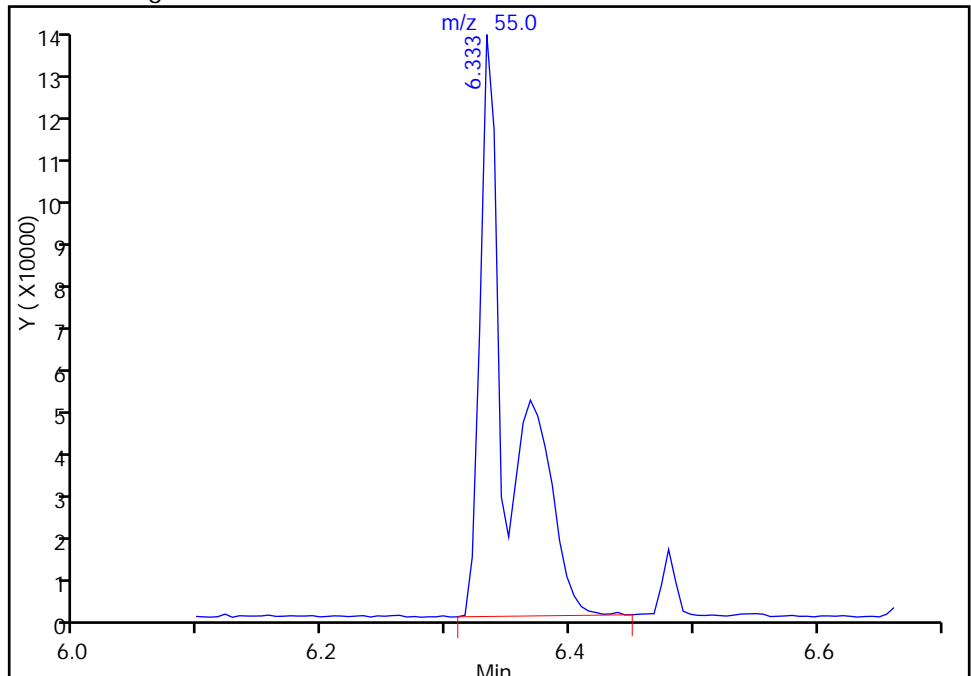
RT: 6.33
Area: 134253
Amount: 37.968430
Amount Units: ug/ml

Processing Integration Results



RT: 6.33
Area: 233836
Amount: 50.994970
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 14-Nov-2015 16:46:25
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141248.D
 Lims ID: STD120 HSL
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-Nov-2015 14:59:30 ALS Bottle#: 7 Worklist Smp#: 8
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD120 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:15 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:48:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.746	4.746	0.000	96	287392	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	100	1024786	40.0	40.0	
* 3 Acenaphthene-d10	164	7.719	7.719	0.000	91	562553	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	870748	40.0	40.0	
* 5 Chrysene-d12	240	13.430	13.436	-0.006	98	761530	40.0	40.0	
* 6 Perylene-d12	264	17.461	17.473	-0.012	98	701370	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	94	1147270	120.0	118.0	
\$ 8 Phenol-d5	99	4.370	4.370	0.000	99	1382385	120.0	114.7	
\$ 9 Nitrobenzene-d5	82	5.258	5.258	0.000	92	1202505	120.0	122.7	
\$ 10 2-Fluorobiphenyl	172	7.026	7.026	0.000	100	2131950	120.0	114.9	
\$ 11 2,4,6-Tribromophenol	330	8.513	8.513	0.000	92	229204	120.0	121.8	
\$ 12 Terphenyl-d14	244	11.239	11.239	0.000	99	2035404	120.0	116.4	
13 1,4-Dioxane	88	2.355	2.355	0.000	98	515745	120.0	120.0	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	90	783878	120.0	118.3	
15 Pyridine	79	2.602	2.602	0.000	89	1383577	120.0	119.6	
22 Phenol	94	4.382	4.382	0.000	98	1388541	120.0	114.5	
23 Aniline	93	4.441	4.441	0.000	96	1742660	120.0	114.6	
24 Bis(2-chloroethyl)ether	93	4.476	4.476	0.000	95	1141314	120.0	118.2	
26 2-Chlorophenol	128	4.558	4.558	0.000	98	1141622	120.0	115.5	
27 1,3-Dichlorobenzene	146	4.699	4.705	-0.006	99	1313692	120.0	115.4	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	95	1312261	120.0	114.7	
29 Benzyl alcohol	108	4.852	4.852	0.000	92	742008	120.0	114.4	
30 2-Methylphenol	108	4.940	4.940	0.000	96	1032393	120.0	115.3	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	1257207	120.0	115.1	
32 2,2'-oxybis[1-chloropropan	45	4.981	4.981	0.000	93	1758975	120.0	115.2	
35 3-Methylphenol	108	5.087	5.087	0.000	92	1040562	120.0	114.0	
36 3 & 4 Methylphenol	108	5.087	5.087	0.000	98	1040562	120.0	114.0	
37 4-Methylphenol	108	5.087	5.087	0.000	95	1040562	120.0	114.0	
39 N-Nitrosodi-n-propylamine	70	5.099	5.099	0.000	94	737339	120.0	111.8	
40 Acetophenone	105	5.111	5.105	0.006	96	1362649	120.0	110.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	91	472955	120.0	115.2	
44 Nitrobenzene	77	5.275	5.275	0.000	91	1107339	120.0	121.3	
46 Isophorone	82	5.498	5.498	0.000	98	1936999	120.0	113.9	
47 2-Nitrophenol	139	5.581	5.581	0.000	95	534085	120.0	128.1	
48 2,4-Dimethylphenol	107	5.598	5.598	0.000	95	1014591	120.0	114.9	
50 Bis(2-chloroethoxy)methane	93	5.686	5.687	0.000	98	1179541	120.0	113.5	
51 Benzoic acid	105	5.722	5.710	0.012	71	1440436	240.0	245.4	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	94	904439	120.0	115.7	
54 1,2,4-Trichlorobenzene	180	5.904	5.910	-0.006	94	1046532	120.0	114.4	
55 Naphthalene	128	5.986	5.986	0.000	98	2852176	120.0	111.9	
56 4-Chloroaniline	127	6.021	6.021	0.000	97	1276909	120.0	113.0	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	98	895674	120.0	116.2	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	96	576359	120.0	114.3	
60 Caprolactam	55	6.350	6.345	0.005	77	460498	120.0	113.6	M
63 4-Chloro-3-methylphenol	107	6.486	6.486	0.000	96	815998	120.0	114.7	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	94	2054074	120.0	111.7	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	1813253	120.0	111.8	
67 Hexachlorocyclopentadiene	237	6.832	6.838	-0.006	96	645069	120.0	120.1	
68 1,2,4,5-Tetrachlorobenzene	216	6.844	6.844	0.000	96	953348	120.0	110.4	
70 2-Chloronaphthalene	162	7.155	7.161	-0.006	96	1828734	120.0	115.9	
71 2,4,6-Trichlorophenol	196	6.944	6.944	0.000	81	589899	120.0	115.5	
72 2,4,5-Trichlorophenol	196	6.979	6.979	0.000	95	671024	120.0	120.5	
74 1,1'-Biphenyl	154	7.126	7.132	-0.006	95	2378964	120.0	115.5	
76 2-Nitroaniline	65	7.244	7.244	0.000	86	509183	120.0	129.6	
79 Dimethyl phthalate	163	7.420	7.420	0.000	99	1793206	120.0	114.2	
80 2,6-Dinitrotoluene	165	7.479	7.479	0.000	96	445162	120.0	129.0	
81 1,3-Dinitrobenzene	168	7.449	7.449	0.000	87	266766	120.0	117.4	
82 Acenaphthylene	152	7.578	7.578	0.000	98	2779866	120.0	114.0	
83 3-Nitroaniline	138	7.655	7.655	0.000	95	495008	120.0	130.1	
84 Acenaphthene	153	7.755	7.755	0.000	92	1735973	120.0	112.6	
85 2,4-Dinitrophenol	184	7.761	7.761	0.000	83	388603	240.0	244.8	
86 4-Nitrophenol	109	7.813	7.808	0.005	92	451973	240.0	255.1	
88 2,4-Dinitrotoluene	165	7.890	7.890	0.000	95	550855	120.0	122.5	
89 Dibenzofuran	168	7.925	7.925	0.000	98	2504066	120.0	113.6	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	72	509138	120.0	123.9	
93 Diethyl phthalate	149	8.125	8.125	0.000	99	1688878	120.0	113.2	
95 4-Chlorophenyl phenyl ethe	204	8.254	8.254	0.000	89	986521	120.0	114.0	
97 Fluorene	166	8.272	8.272	0.000	94	1938169	120.0	110.6	
98 4-Nitroaniline	138	8.278	8.278	0.000	85	452347	120.0	125.3	
99 4,6-Dinitro-2-methylphenol	198	8.307	8.307	0.000	88	597758	240.0	248.9	
100 N-Nitrosodiphenylamine	169	8.372	8.372	0.000	62	2673298	240.0	224.1	
102 1,2-Diphenylhydrazine	77	8.413	8.419	-0.006	99	1859831	121.3	117.0	
103 Azobenzene	77	8.413	8.419	-0.006	99	1859831	120.0	115.7	
109 4-Bromophenyl phenyl ether	248	8.748	8.754	-0.006	66	545697	120.0	117.6	
112 Hexachlorobenzene	284	8.842	8.842	0.000	94	516875	120.0	116.2	
114 Pentachlorophenol	266	9.030	9.030	0.000	93	670534	240.0	243.8	
119 Phenanthrene	178	9.247	9.247	0.000	97	2739113	120.0	114.2	
120 Anthracene	178	9.294	9.300	-0.006	97	2798566	120.0	114.9	
121 Carbazole	167	9.447	9.447	0.000	95	2554606	120.0	116.4	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	99	2762664	120.0	118.4	
128 Fluoranthene	202	10.657	10.663	-0.006	98	2989763	120.0	118.2	
129 Pyrene	202	11.004	11.010	-0.006	97	3085403	120.0	115.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.026	12.032	-0.006	100	1015443	120.0	119.7	
136 Butyl benzyl phthalate	149	12.155	12.161	-0.006	97	1258638	120.0	122.0	
139 3,3'-Dichlorobenzidine	252	13.354	13.360	-0.006	74	841231	120.0	123.0	
140 Benzo[a]anthracene	228	13.407	13.413	-0.006	98	2829523	120.0	119.2	
141 Chrysene	228	13.495	13.501	-0.006	97	2710734	120.0	119.5	
142 Bis(2-ethylhexyl) phthalat	149	13.566	13.572	-0.006	97	1701165	120.0	124.3	
143 Di-n-octyl phthalate	149	15.416	15.428	-0.012	99	2911383	120.0	126.7	
145 Benzo[b]fluoranthene	252	16.351	16.357	-0.006	97	2600800	120.0	120.3	
146 Benzo[k]fluoranthene	252	16.433	16.439	-0.006	99	2644249	120.0	121.3	
147 Benzo[a]pyrene	252	17.303	17.308	-0.006	81	2570230	120.0	121.9	
150 Indeno[1,2,3-cd]pyrene	276	20.640	20.646	-0.006	98	2265630	120.0	127.1	
151 Dibenz(a,h)anthracene	278	20.734	20.740	-0.006	93	2260825	120.0	124.1	
152 Benzo[g,h,i]perylene	276	21.392	21.398	-0.006	97	2362548	120.0	123.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA120_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141248.D

Injection Date: 12-Nov-2015 14:59:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD120 HSL

Worklist Smp#: 8

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

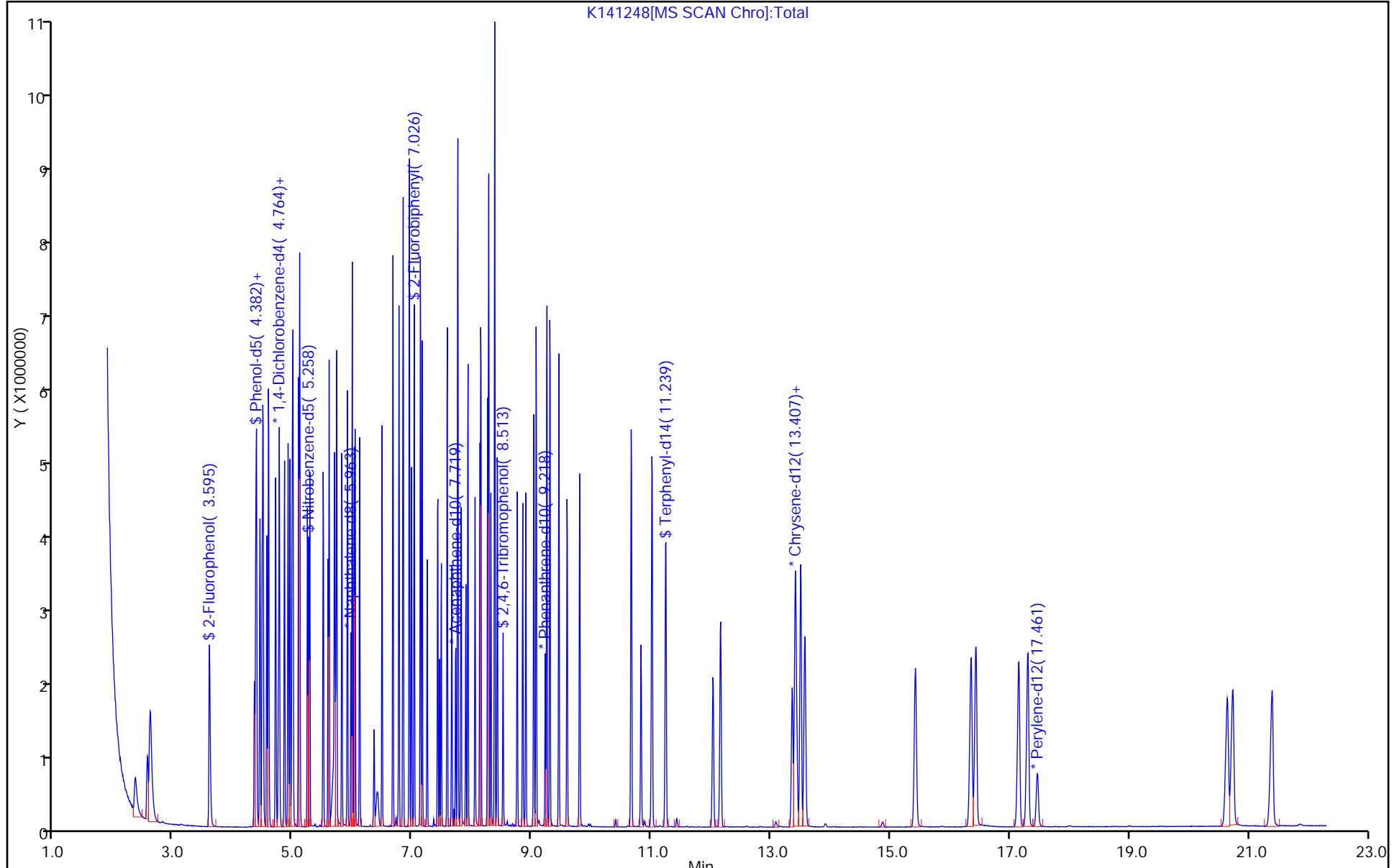
ALS Bottle#: 7

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



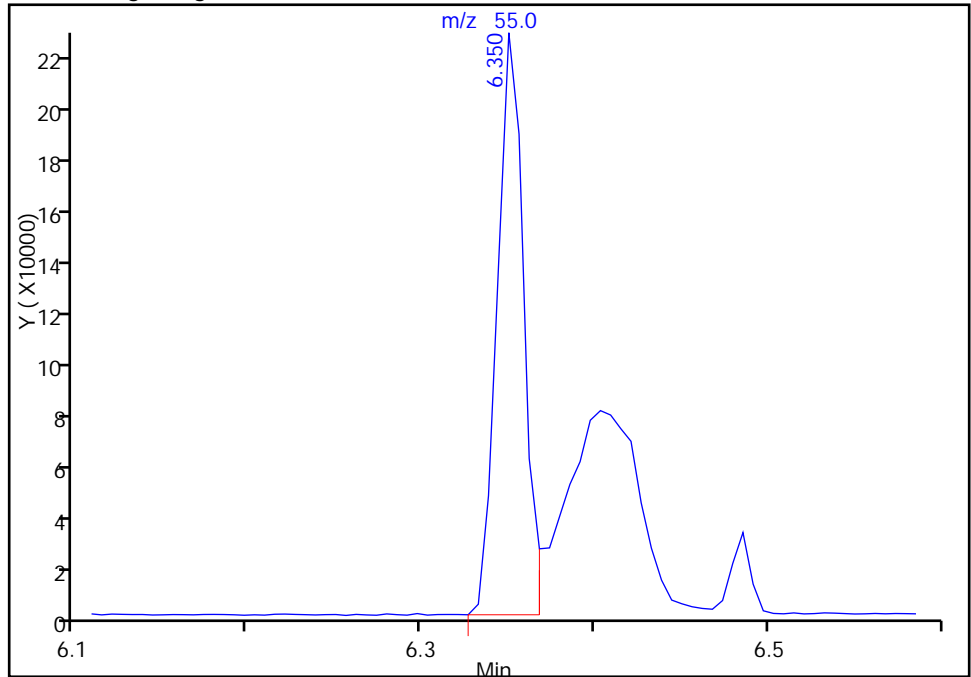
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141248.D
Injection Date: 12-Nov-2015 14:59:30 Instrument ID: SMS_K
Lims ID: STD120 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

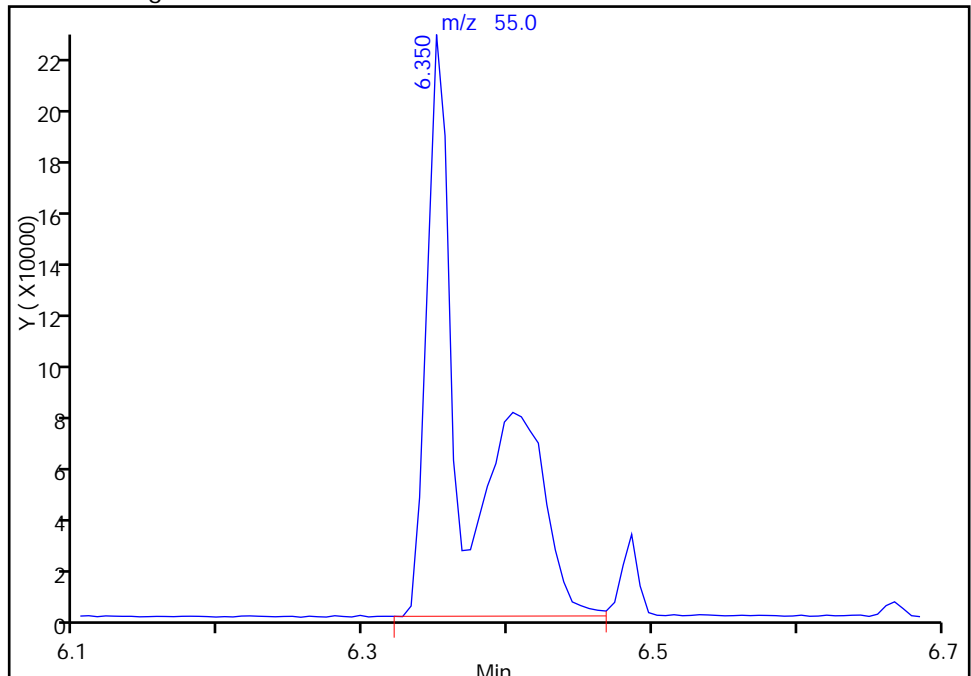
RT: 6.35
Area: 237892
Amount: 71.127900
Amount Units: ug/ml

Processing Integration Results



RT: 6.35
Area: 460498
Amount: 113.6461
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 14-Nov-2015 16:48:43
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141249.D
 Lims ID: STD160 HSL
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 12-Nov-2015 15:27:30 ALS Bottle#: 8 Worklist Smp#: 9
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD160 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:18 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera

Date: 14-Nov-2015 16:50:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.746	4.746	0.000	96	266137	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	100	973896	40.0	40.0	
* 3 Acenaphthene-d10	164	7.720	7.719	0.001	90	554427	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	888334	40.0	40.0	
* 5 Chrysene-d12	240	13.436	13.436	0.000	98	802273	40.0	40.0	
* 6 Perylene-d12	264	17.461	17.473	-0.012	98	726920	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	95	1379290	160.0	153.2	
\$ 8 Phenol-d5	99	4.376	4.370	0.006	98	1672217	160.0	149.9	
\$ 9 Nitrobenzene-d5	82	5.258	5.258	0.000	92	1493495	160.0	160.4	
\$ 10 2-Fluorobiphenyl	172	7.026	7.026	0.000	100	2618650	160.0	143.2	
\$ 11 2,4,6-Tribromophenol	330	8.513	8.513	0.000	92	301239	160.0	162.5	
\$ 12 Terphenyl-d14	244	11.239	11.239	0.000	99	2729425	160.0	148.1	
13 1,4-Dioxane	88	2.355	2.355	0.000	99	611821	160.0	153.8	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	90	958234	160.0	156.2	
15 Pyridine	79	2.602	2.602	0.000	89	1670991	160.0	156.0	
22 Phenol	94	4.388	4.382	0.006	98	1673100	160.0	149.0	
23 Aniline	93	4.441	4.441	0.000	97	2156298	160.0	153.1	
24 Bis(2-chloroethyl)ether	93	4.476	4.476	0.000	95	1320855	160.0	147.8	
26 2-Chlorophenol	128	4.558	4.558	0.000	98	1382188	160.0	151.0	
27 1,3-Dichlorobenzene	146	4.705	4.705	0.000	99	1559713	160.0	147.9	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	94	1559990	160.0	147.3	
29 Benzyl alcohol	108	4.852	4.852	0.000	92	915843	160.0	152.5	
30 2-Methylphenol	108	4.946	4.940	0.006	95	1243582	160.0	150.0	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	1486832	160.0	147.0	
32 2,2'-oxybis[1-chloropropan	45	4.982	4.981	0.001	93	2111280	160.0	149.3	
35 3-Methylphenol	108	5.087	5.087	0.000	91	1259426	160.0	149.0	
36 3 & 4 Methylphenol	108	5.087	5.087	0.000	98	1259426	160.0	149.0	
37 4-Methylphenol	108	5.087	5.087	0.000	96	1259426	160.0	149.0	
39 N-Nitrosodi-n-propylamine	70	5.105	5.099	0.006	92	897955	160.0	147.0	
40 Acetophenone	105	5.111	5.105	0.006	97	1636060	160.0	143.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	94	561388	160.0	147.6	
44 Nitrobenzene	77	5.275	5.275	0.000	92	1354603	160.0	156.2	
46 Isophorone	82	5.504	5.498	0.006	98	2407444	160.0	148.9	
47 2-Nitrophenol	139	5.581	5.581	0.000	94	682602	160.0	172.2	
48 2,4-Dimethylphenol	107	5.598	5.598	0.000	95	1233414	160.0	147.0	
50 Bis(2-chloroethoxy)methane	93	5.692	5.687	0.006	99	1462232	160.0	148.0	
51 Benzoic acid	105	5.734	5.710	0.024	79	1930449	320.0	341.8	
53 2,4-Dichlorophenol	162	5.816	5.810	0.006	92	1113386	160.0	149.9	
54 1,2,4-Trichlorobenzene	180	5.904	5.910	-0.006	94	1270070	160.0	146.1	
55 Naphthalene	128	5.986	5.986	0.000	98	3434016	160.0	141.8	
56 4-Chloroaniline	127	6.021	6.021	0.000	96	1572472	160.0	146.4	
57 2,6-Dichlorophenol	162	6.039	6.033	0.006	98	1072776	160.0	146.5	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	95	697691	160.0	145.6	
60 Caprolactam	55	6.362	6.345	0.017	76	612721	160.0	159.1	M
63 4-Chloro-3-methylphenol	107	6.486	6.486	0.000	96	1027619	160.0	152.1	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	94	2502196	160.0	143.2	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	2216754	160.0	143.8	
67 Hexachlorocyclopentadiene	237	6.838	6.838	0.000	95	793577	160.0	149.9	
68 1,2,4,5-Tetrachlorobenzene	216	6.844	6.844	0.000	96	1149891	160.0	140.2	
70 2-Chloronaphthalene	162	7.161	7.161	0.000	95	2258965	160.0	145.2	
71 2,4,6-Trichlorophenol	196	6.944	6.944	0.000	83	723458	160.0	143.7	
72 2,4,5-Trichlorophenol	196	6.979	6.979	0.000	94	839366	160.0	152.9	
74 1,1'-Biphenyl	154	7.132	7.132	0.000	95	2915680	160.0	143.6	
76 2-Nitroaniline	65	7.244	7.244	0.000	85	661155	160.0	170.8	
79 Dimethyl phthalate	163	7.420	7.420	0.000	99	2272564	160.0	146.9	
80 2,6-Dinitrotoluene	165	7.479	7.479	0.000	95	588044	160.0	172.9	
81 1,3-Dinitrobenzene	168	7.449	7.449	0.000	87	376139	160.0	164.9	
82 Acenaphthylene	152	7.579	7.578	0.001	98	3428715	160.0	142.6	
83 3-Nitroaniline	138	7.655	7.655	0.000	96	663281	160.0	176.9	
84 Acenaphthene	153	7.755	7.755	0.000	92	2149537	160.0	141.4	
85 2,4-Dinitrophenol	184	7.761	7.761	0.000	82	564711	320.0	323.4	
86 4-Nitrophenol	109	7.814	7.808	0.006	95	607542	320.0	347.9	
88 2,4-Dinitrotoluene	165	7.890	7.890	0.000	95	738526	160.0	165.2	
89 Dibenzofuran	168	7.925	7.925	0.000	97	3154726	160.0	145.2	
91 2,3,4,6-Tetrachlorophenol	232	8.043	8.043	0.000	72	648852	160.0	160.2	
93 Diethyl phthalate	149	8.125	8.125	0.000	99	2151968	160.0	146.3	
95 4-Chlorophenyl phenyl ethe	204	8.254	8.254	0.000	90	1251279	160.0	146.7	
97 Fluorene	166	8.272	8.272	0.000	95	2469787	160.0	143.0	
98 4-Nitroaniline	138	8.284	8.278	0.006	87	615126	160.0	172.9	
99 4,6-Dinitro-2-methylphenol	198	8.313	8.307	0.006	88	846098	320.0	340.4	
100 N-Nitrosodiphenylamine	169	8.378	8.372	0.006	63	3331783	320.0	273.8	
102 1,2-Diphenylhydrazine	77	8.419	8.419	0.000	98	2369060	161.8	151.2	
103 Azobenzene	77	8.419	8.419	0.000	98	2369060	160.0	149.6	
109 4-Bromophenyl phenyl ether	248	8.748	8.754	-0.006	65	707653	160.0	149.5	
112 Hexachlorobenzene	284	8.842	8.842	0.000	93	660593	160.0	145.6	
114 Pentachlorophenol	266	9.030	9.030	0.000	93	875868	320.0	311.3	
119 Phenanthrene	178	9.247	9.247	0.000	97	3550339	160.0	145.0	
120 Anthracene	178	9.300	9.300	0.000	97	3570394	160.0	143.7	
121 Carbazole	167	9.447	9.447	0.000	95	3364495	160.0	150.3	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	99	3628899	160.0	152.4	
128 Fluoranthene	202	10.663	10.663	0.000	98	3970684	160.0	153.9	
129 Pyrene	202	11.010	11.010	0.000	97	4123628	160.0	146.6	

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141249.D

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.032	12.032	0.000	99	1346639	160.0	150.7	
136 Butyl benzyl phthalate	149	12.156	12.161	-0.005	97	1725799	160.0	158.8	
139 3,3'-Dichlorobenzidine	252	13.360	13.360	0.000	73	1136388	160.0	157.7	
140 Benzo[a]anthracene	228	13.413	13.413	0.000	98	3866771	160.0	154.6	
141 Chrysene	228	13.501	13.501	0.000	97	3672687	160.0	153.6	
142 Bis(2-ethylhexyl) phthalat	149	13.566	13.572	-0.006	97	2328301	160.0	161.4	
143 Di-n-octyl phthalate	149	15.422	15.428	-0.006	99	4032741	160.0	166.6	
145 Benzo[b]fluoranthene	252	16.357	16.357	0.000	97	3595794	160.0	160.4	
146 Benzo[k]fluoranthene	252	16.439	16.439	0.000	99	3611170	160.0	159.9	
147 Benzo[a]pyrene	252	17.308	17.308	0.000	78	3508423	160.0	160.5	
150 Indeno[1,2,3-cd]pyrene	276	20.652	20.646	0.006	98	3142160	160.0	167.3	
151 Dibenz(a,h)anthracene	278	20.740	20.740	0.000	93	3107833	160.0	164.6	
152 Benzo[g,h,i]perylene	276	21.404	21.398	0.006	97	3210591	160.0	162.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA160_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141249.D

Injection Date: 12-Nov-2015 15:27:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD160 HSL

Worklist Smp#: 9

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

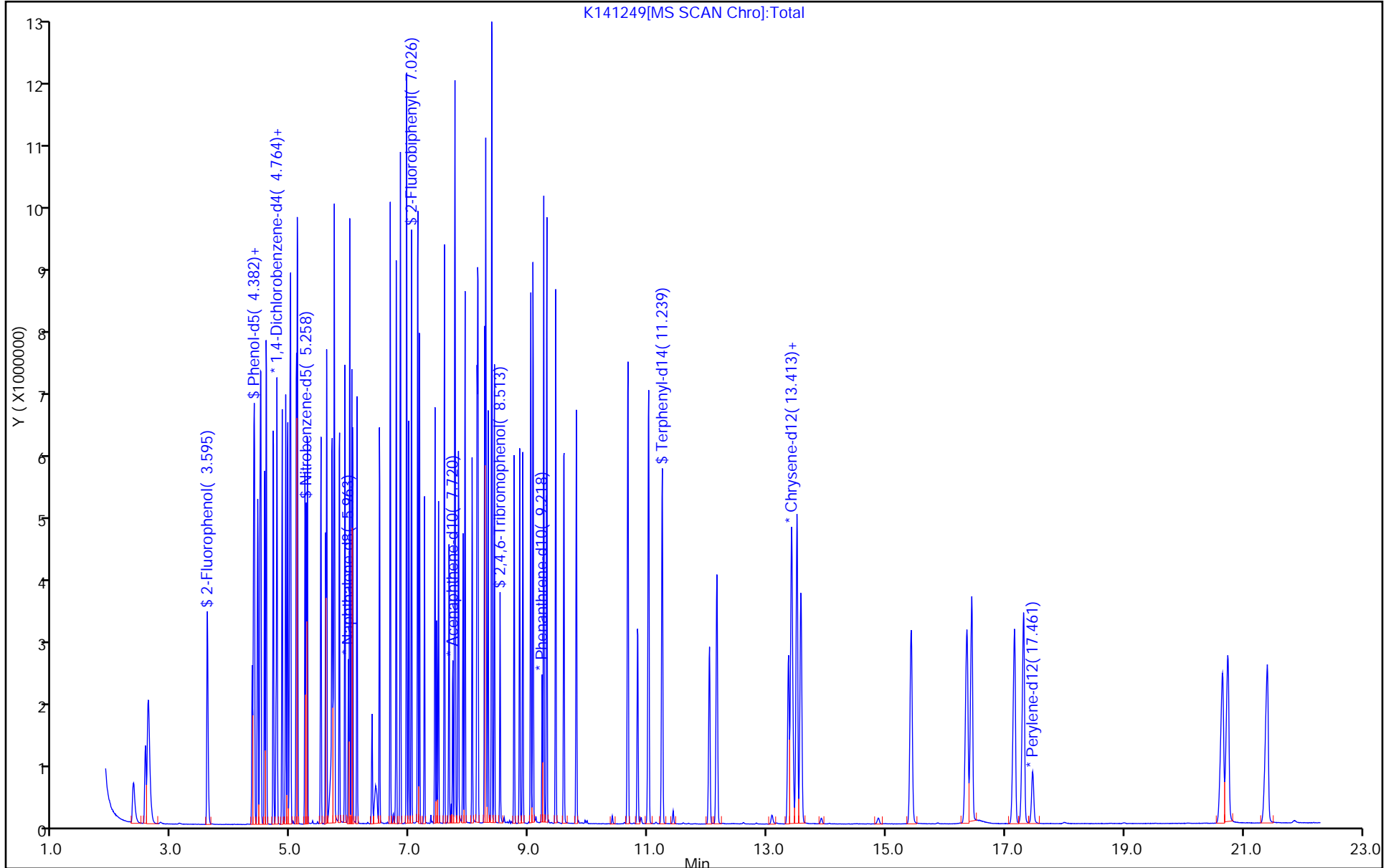
ALS Bottle#: 8

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



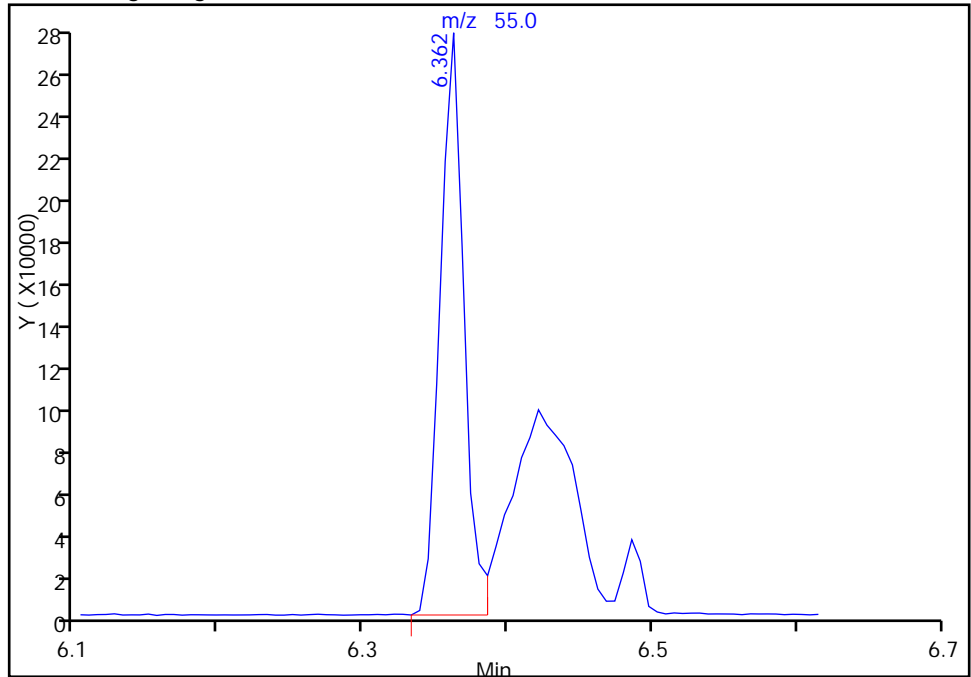
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141249.D
Injection Date: 12-Nov-2015 15:27:30 Instrument ID: SMS_K
Lims ID: STD160 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

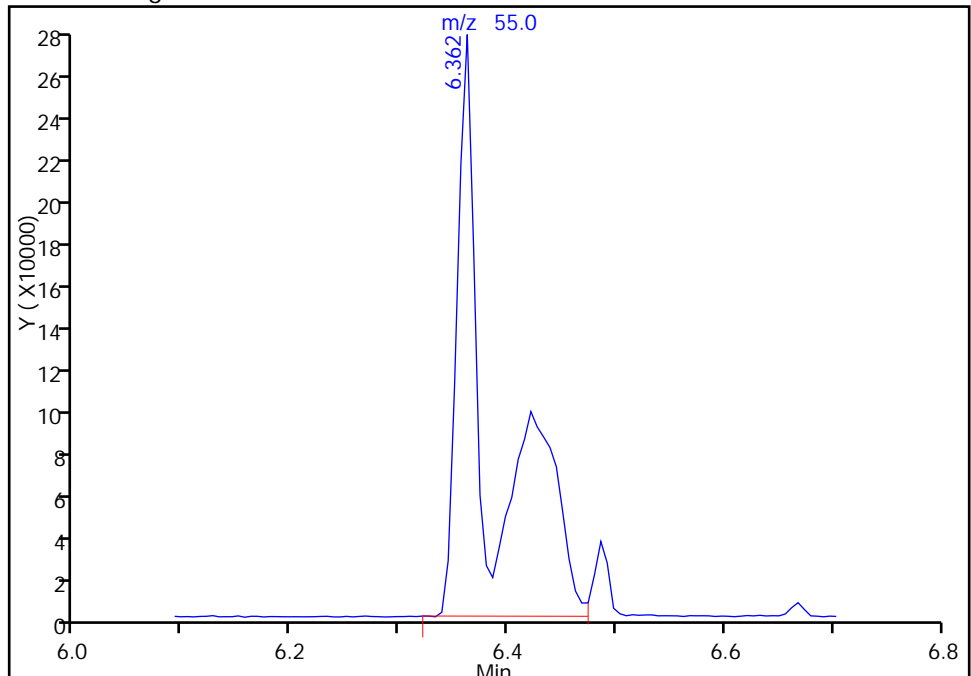
RT: 6.36
Area: 322326
Amount: 94.833994
Amount Units: ug/ml

Processing Integration Results



RT: 6.36
Area: 612721
Amount: 159.1147
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 14-Nov-2015 16:50:24
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Lims ID: STD200 HSL
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 12-Nov-2015 15:55:30 ALS Bottle#: 9 Worklist Smp#: 10
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD200 HSL
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:22 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: kiekeld

Date: 16-Nov-2015 09:00:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.746	4.746	0.000	96	262112	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	100	947014	40.0	40.0	
* 3 Acenaphthene-d10	164	7.719	7.719	0.000	90	530068	40.0	40.0	
* 4 Phenanthrene-d10	188	9.224	9.224	0.000	97	865849	40.0	40.0	
* 5 Chrysene-d12	240	13.436	13.436	0.000	98	787743	40.0	40.0	
* 6 Perylene-d12	264	17.461	17.473	-0.012	98	725608	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.595	3.595	0.000	95	1694623	200.0	191.1	
\$ 8 Phenol-d5	99	4.376	4.370	0.006	97	2026911	200.0	184.5	
\$ 9 Nitrobenzene-d5	82	5.258	5.258	0.000	92	1816588	200.0	200.6	
\$ 10 2-Fluorobiphenyl	172	7.026	7.026	0.000	100	3064556	200.0	175.3	
\$ 11 2,4,6-Tribromophenol	330	8.513	8.513	0.000	93	362410	200.0	204.5	
\$ 12 Terphenyl-d14	244	11.239	11.239	0.000	99	3288577	200.0	181.7	
13 1,4-Dioxane	88	2.355	2.355	0.000	99	755396	200.0	192.7	
14 N-Nitrosodimethylamine	74	2.555	2.555	0.000	90	1179307	200.0	195.2	
15 Pyridine	79	2.602	2.602	0.000	89	2056268	200.0	194.9	
22 Phenol	94	4.388	4.382	0.006	98	2009841	200.0	181.7	
23 Aniline	93	4.441	4.441	0.000	97	2648159	200.0	190.9	
24 Bis(2-chloroethyl)ether	93	4.476	4.476	0.000	95	1554480	200.0	176.6	
26 2-Chlorophenol	128	4.558	4.558	0.000	98	1650458	200.0	183.0	
27 1,3-Dichlorobenzene	146	4.705	4.705	0.000	99	1877851	200.0	180.9	
28 1,4-Dichlorobenzene	146	4.764	4.764	0.000	94	1871928	200.0	179.5	
29 Benzyl alcohol	108	4.852	4.852	0.000	93	1106819	200.0	187.2	
30 2-Methylphenol	108	4.946	4.940	0.006	95	1504522	200.0	184.3	
31 1,2-Dichlorobenzene	146	4.911	4.911	0.000	98	1794137	200.0	180.1	
32 2,2'-oxybis[1-chloropropan	45	4.981	4.981	0.000	93	2527329	200.0	181.4	
35 3-Methylphenol	108	5.093	5.087	0.006	91	1508881	200.0	181.2	
36 3 & 4 Methylphenol	108	5.093	5.087	0.006	96	1508881	200.0	181.2	
37 4-Methylphenol	108	5.093	5.087	0.006	92	1508881	200.0	181.2	
39 N-Nitrosodi-n-propylamine	70	5.105	5.099	0.006	94	1050354	200.0	174.6	
40 Acetophenone	105	5.111	5.105	0.006	95	1902118	200.0	169.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	91	686223	200.0	183.2	
44 Nitrobenzene	77	5.275	5.275	0.000	92	1634080	200.0	193.7	
46 Isophorone	82	5.504	5.498	0.006	98	2848479	200.0	181.2	
47 2-Nitrophenol	139	5.581	5.581	0.000	95	820943	200.0	213.0	
48 2,4-Dimethylphenol	107	5.604	5.598	0.006	94	1467701	200.0	179.9	
50 Bis(2-chloroethoxy)methane	93	5.692	5.687	0.006	98	1699879	200.0	177.0	
51 Benzoic acid	105	5.745	5.710	0.035	90	2374968	400.0	429.7	
53 2,4-Dichlorophenol	162	5.816	5.810	0.006	93	1331600	200.0	184.3	
54 1,2,4-Trichlorobenzene	180	5.910	5.910	0.000	94	1492971	200.0	176.6	
55 Naphthalene	128	5.986	5.986	0.000	98	4068173	200.0	172.8	
56 4-Chloroaniline	127	6.021	6.021	0.000	96	1821929	200.0	174.4	
57 2,6-Dichlorophenol	162	6.039	6.033	0.006	98	1271002	200.0	178.5	
59 Hexachlorobutadiene	225	6.110	6.110	0.000	96	826547	200.0	177.4	
60 Caprolactam	55	6.368	6.345	0.023	76	740304	200.0	197.7	M
63 4-Chloro-3-methylphenol	107	6.491	6.486	0.005	96	1195163	200.0	181.9	
65 2-Methylnaphthalene	142	6.668	6.668	0.000	94	2906499	200.0	171.1	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	2587300	200.0	172.7	
67 Hexachlorocyclopentadiene	237	6.838	6.838	0.000	95	912426	200.0	180.2	
68 1,2,4,5-Tetrachlorobenzene	216	6.844	6.844	0.000	96	1334581	200.0	167.3	
70 2-Chloronaphthalene	162	7.161	7.161	0.000	95	2602179	200.0	175.0	
71 2,4,6-Trichlorophenol	196	6.944	6.944	0.000	84	841571	200.0	174.8	
72 2,4,5-Trichlorophenol	196	6.979	6.979	0.000	95	991043	200.0	188.8	
74 1,1'-Biphenyl	154	7.132	7.132	0.000	95	3319617	200.0	171.0	
76 2-Nitroaniline	65	7.244	7.244	0.000	85	801471	200.0	216.6	
79 Dimethyl phthalate	163	7.420	7.420	0.000	99	2692221	200.0	182.0	
80 2,6-Dinitrotoluene	165	7.479	7.479	0.000	96	709007	200.0	218.1	
81 1,3-Dinitrobenzene	168	7.455	7.449	0.006	89	470072	200.0	213.2	
82 Acenaphthylene	152	7.578	7.578	0.000	98	3999424	200.0	174.0	
83 3-Nitroaniline	138	7.661	7.655	0.006	95	796595	200.0	222.3	
84 Acenaphthene	153	7.755	7.755	0.000	93	2501035	200.0	172.1	
85 2,4-Dinitrophenol	184	7.766	7.761	0.005	86	728530	400.0	397.9	
86 4-Nitrophenol	109	7.819	7.808	0.011	94	730695	400.0	437.7	
88 2,4-Dinitrotoluene	165	7.896	7.890	0.006	95	895091	200.0	208.3	
89 Dibenzofuran	168	7.925	7.925	0.000	97	3638828	200.0	175.2	
91 2,3,4,6-Tetrachlorophenol	232	8.049	8.043	0.006	73	769409	200.0	198.6	
93 Diethyl phthalate	149	8.125	8.125	0.000	99	2507232	200.0	178.3	
95 4-Chlorophenyl phenyl ethe	204	8.254	8.254	0.000	90	1463559	200.0	179.4	
97 Fluorene	166	8.272	8.272	0.000	95	2897170	200.0	175.5	
98 4-Nitroaniline	138	8.284	8.278	0.006	88	760620	200.0	223.6	
99 4,6-Dinitro-2-methylphenol	198	8.313	8.307	0.006	88	1067763	400.0	437.0	
100 N-Nitrosodiphenylamine	169	8.378	8.372	0.006	62	3908356	400.0	329.6	
102 1,2-Diphenylhydrazine	77	8.419	8.419	0.000	98	2770185	202.2	184.9	
103 Azobenzene	77	8.419	8.419	0.000	98	2770185	200.0	182.9	
109 4-Bromophenyl phenyl ether	248	8.754	8.754	0.000	66	839747	200.0	182.0	
112 Hexachlorobenzene	284	8.842	8.842	0.000	94	788904	200.0	178.4	
114 Pentachlorophenol	266	9.030	9.030	0.000	93	1055824	400.0	384.4	
119 Phenanthrene	178	9.247	9.247	0.000	97	4117817	200.0	172.6	
120 Anthracene	178	9.300	9.300	0.000	97	4237626	200.0	175.0	
121 Carbazole	167	9.453	9.447	0.006	96	3959423	200.0	181.5	
123 Di-n-butyl phthalate	149	9.794	9.799	-0.005	99	4296488	200.0	185.1	
128 Fluoranthene	202	10.663	10.663	0.000	98	4738388	200.0	188.4	
129 Pyrene	202	11.010	11.010	0.000	97	4924264	200.0	178.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.032	12.032	0.000	100	1582773	200.0	180.3	
136 Butyl benzyl phthalate	149	12.156	12.161	-0.005	97	2089286	200.0	195.8	
139 3,3'-Dichlorobenzidine	252	13.360	13.360	0.000	73	1342967	200.0	189.9	
140 Benzo[a]anthracene	228	13.413	13.413	0.000	98	4682669	200.0	190.7	
141 Chrysene	228	13.507	13.501	0.006	97	4467293	200.0	190.3	
142 Bis(2-ethylhexyl) phthalat	149	13.566	13.572	-0.006	97	2854760	200.0	201.6	
143 Di-n-octyl phthalate	149	15.422	15.428	-0.006	99	4936584	200.0	207.7	
145 Benzo[b]fluoranthene	252	16.362	16.357	0.005	97	4408945	200.0	197.1	
146 Benzo[k]fluoranthene	252	16.445	16.439	0.006	99	4373890	200.0	194.0	
147 Benzo[a]pyrene	252	17.320	17.308	0.012	77	4285831	200.0	196.5	
150 Indeno[1,2,3-cd]pyrene	276	20.663	20.646	0.017	99	3896082	200.0	211.3	
151 Dibenz(a,h)anthracene	278	20.752	20.740	0.012	95	3844203	200.0	203.9	
152 Benzo[g,h,i]perylene	276	21.415	21.398	0.017	97	3971142	200.0	200.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA200_00020

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D

Injection Date: 12-Nov-2015 15:55:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: STD200 HSL

Worklist Smp#: 10

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

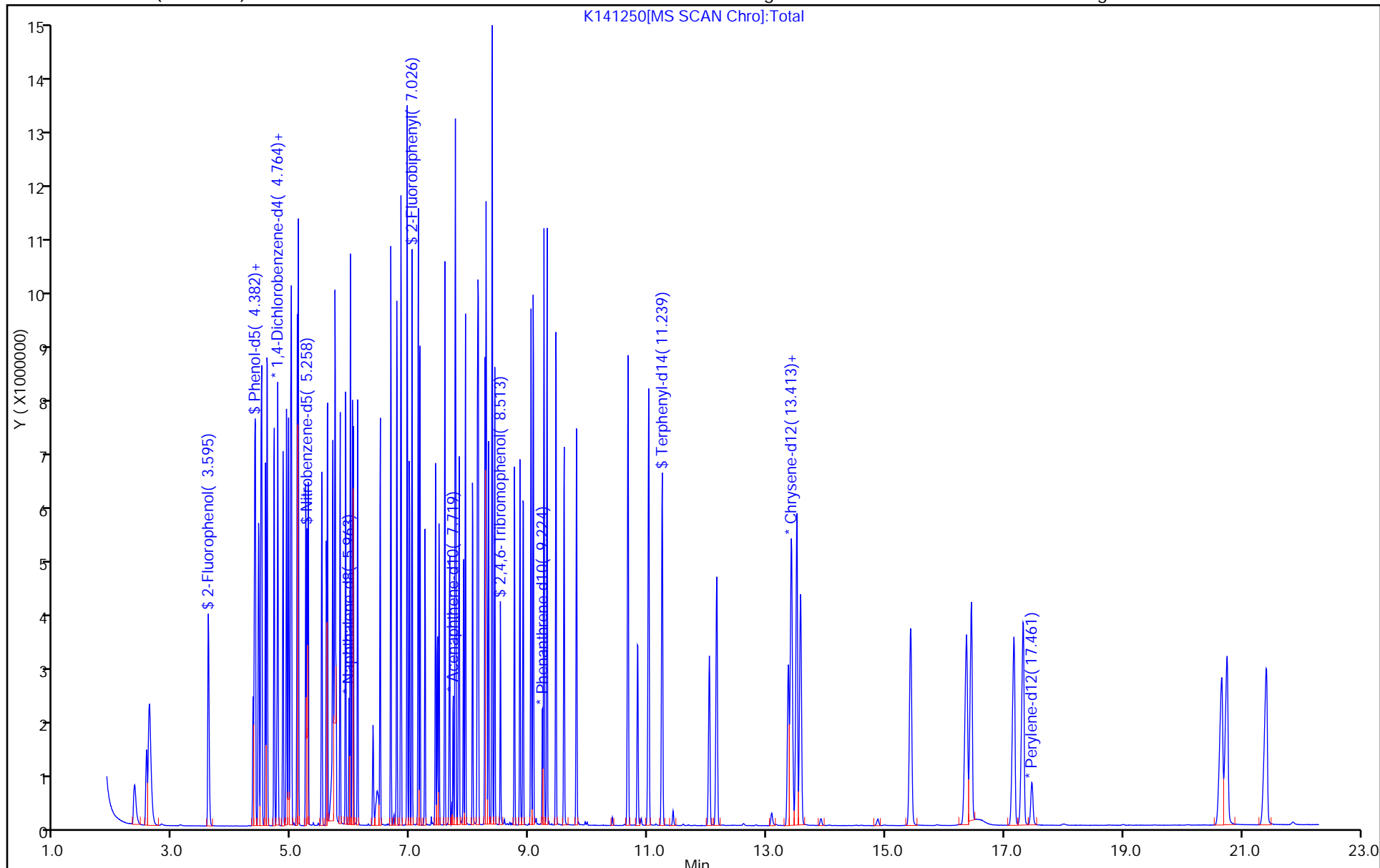
ALS Bottle#: 9

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



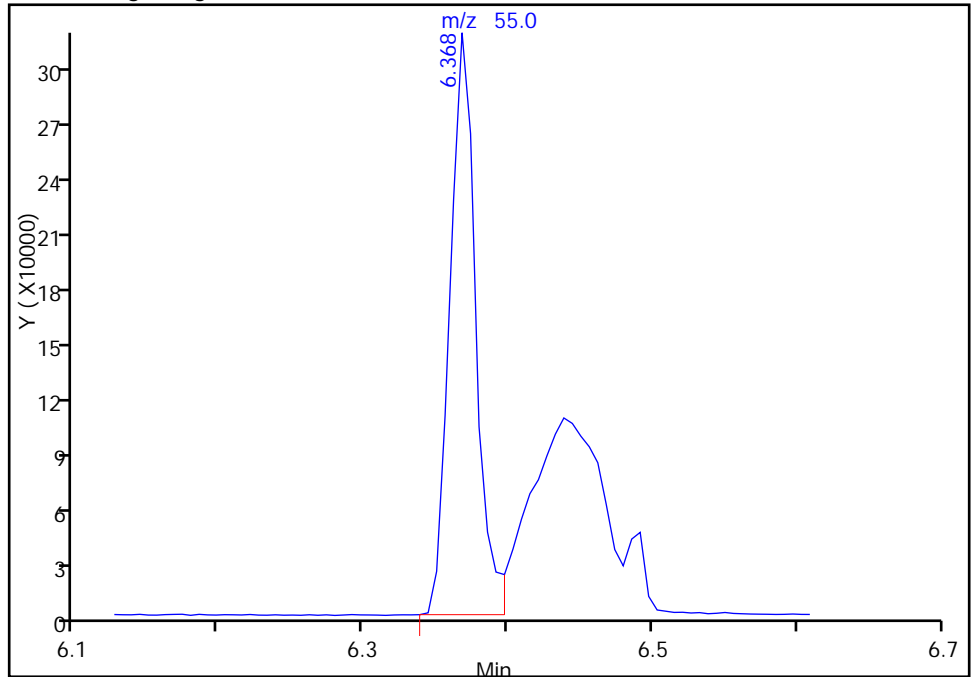
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
Injection Date: 12-Nov-2015 15:55:30 Instrument ID: SMS_K
Lims ID: STD200 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

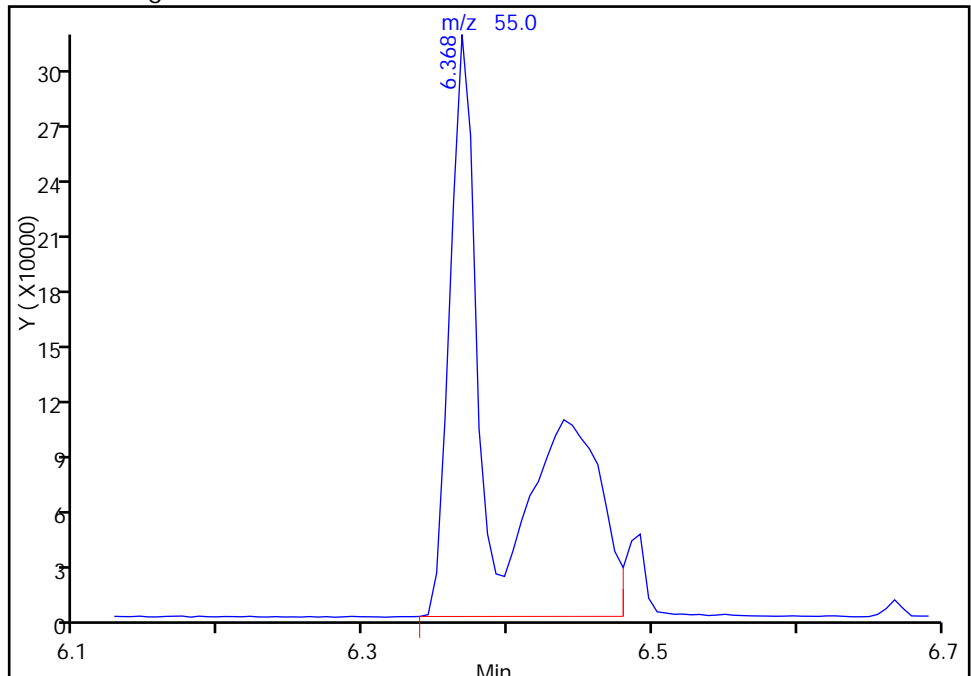
RT: 6.37
Area: 390089
Amount: 110.6436
Amount Units: ug/ml

Processing Integration Results



RT: 6.37
Area: 740304
Amount: 197.7033
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 14-Nov-2015 16:52:02
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab Sample ID: ICV 280-304153/12 Calibration Date: 11/12/2015 16:50
 Instrument ID: SMS_K Calib Start Date: 11/12/2015 12:40
 GC Column: Vf-5MS (30.25) ID: 0.25 (mm) Calib End Date: 11/12/2015 15:55
 Lab File ID: K141252.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1582	0.1521		96.2	100	-3.8	30.0
3,3'-Dichlorobenzidine	Ave	0.3592	0.4130	0.0100	115	100	15.0	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141252.D
 Lims ID: ICV HSL 2
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Nov-2015 16:50:30 ALS Bottle#: 11 Worklist Smp#: 12
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: ICV HSL 2
 Operator ID: KIEKELD Instrument ID: SMS_K
 Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:07:22 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera Date: 14-Nov-2015 16:53:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.746	4.746	0.000	96	298198	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	99	1084098	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.719	-0.005	90	640775	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.224	-0.006	97	1028352	40.0	40.0	
* 5 Chrysene-d12	240	13.419	13.436	-0.017	98	835739	40.0	40.0	
* 6 Perylene-d12	264	17.449	17.473	-0.024	98	723690	40.0	40.0	
60 Caprolactam	55	6.327	6.345	-0.018	76	412308	100.0	96.2	
139 3,3'-Dichlorobenzidine	252	13.348	13.360	-0.012	70	862809	100.0	115.0	

Reagents:

MS-HSLB2SSV_00025

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141252.D

Injection Date: 12-Nov-2015 16:50:30

Instrument ID: SMS_K

Operator ID: KIEKELD

Lims ID: ICV HSL 2

Worklist Smp#: 12

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

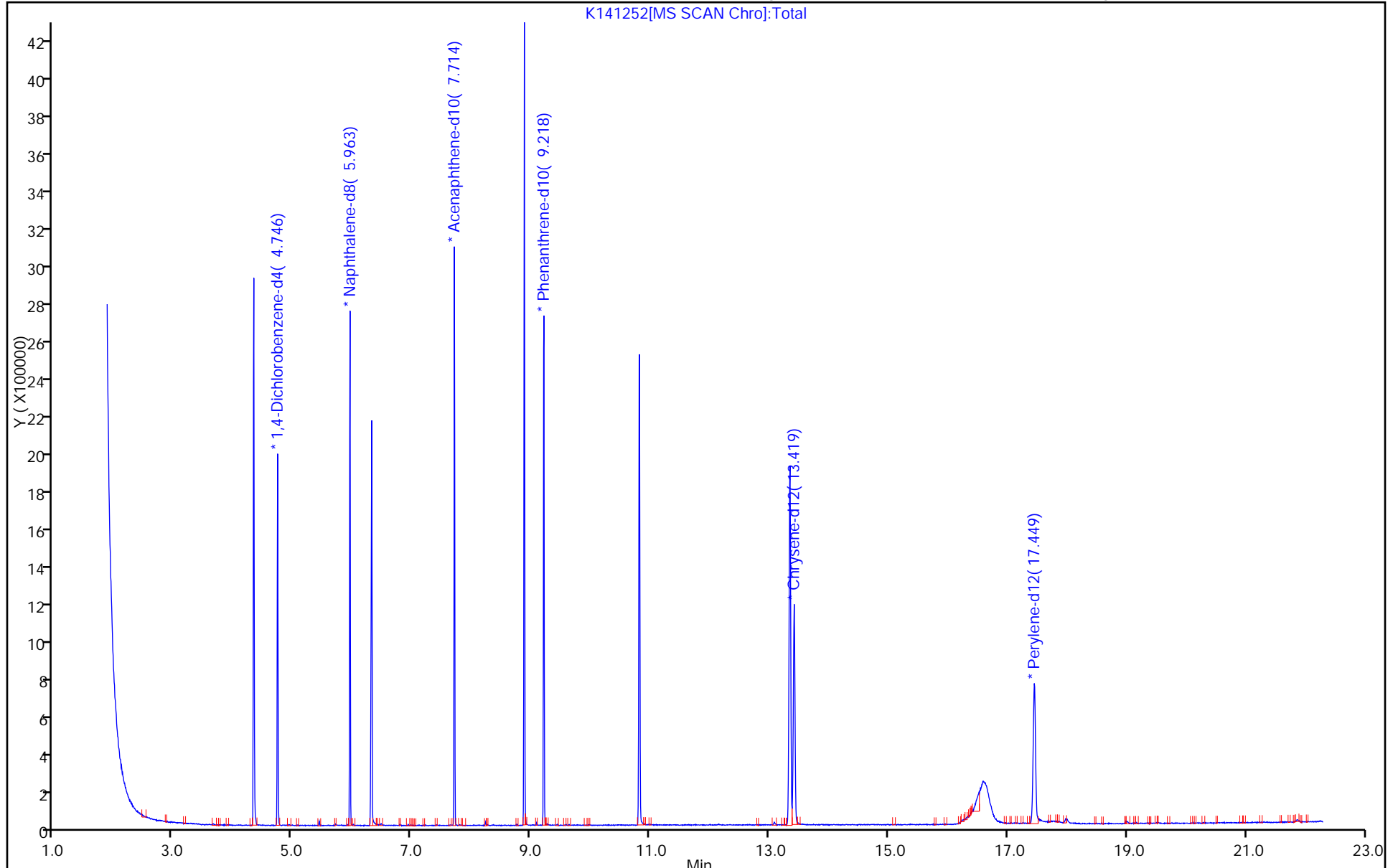
ALS Bottle#: 11

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab Sample ID: CCV 280-304326/3 Calibration Date: 11/16/2015 16:30
 Instrument ID: SMS_K Calib Start Date: 11/12/2015 12:40
 GC Column: Vf-5MS (30.25) ID: 0.25 (mm) Calib End Date: 11/12/2015 15:55
 Lab File ID: K141348.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5981	0.6072		81.2	80.0	1.5	20.0
N-Nitrosodimethylamine	Ave	0.9219	0.9187		79.7	80.0	-0.3	20.0
Pyridine	Ave	1.610	1.639		81.4	80.0	1.8	20.0
Phenol	Ave	1.688	1.684	0.8000	79.8	80.0	-0.2	20.0
Aniline	Ave	2.117	2.101		79.4	80.0	-0.7	20.0
Bis(2-chloroethyl)ether	Ave	1.343	1.357	0.7000	80.8	80.0	1.0	20.0
2-Chlorophenol	Ave	1.376	1.342	0.8000	78.0	80.0	-2.5	20.0
1,3-Dichlorobenzene	Ave	1.585	1.591		80.3	80.0	0.4	20.0
1,4-Dichlorobenzene	Ave	1.592	1.607		80.8	80.0	1.0	20.0
Benzyl alcohol	Ave	0.9024	0.8772		77.8	80.0	-2.8	20.0
1,2-Dichlorobenzene	Ave	1.520	1.528		80.4	80.0	0.6	20.0
2-Methylphenol	Ave	1.246	1.249	0.7000	80.2	80.0	0.2	20.0
bis (2-chloroisopropyl) ether	Ave	2.126	2.077	0.0100	78.1	80.0	-2.3	20.0
3 & 4 Methylphenol	Ave	1.270	1.260		79.4	80.0	-0.8	20.0
3-Methylphenol	Ave	1.270	1.260		79.4	80.0	-0.8	20.0
4-Methylphenol	Ave	1.270	1.260	0.6000	79.4	80.0	-0.8	20.0
N-Nitrosodi-n-propylamine	Ave	0.9178	0.9040	0.5000	78.8	80.0	-1.5	20.0
Acetophenone	Ave	1.711	1.739	0.0100	81.4	80.0	1.7	20.0
Hexachloroethane	Ave	0.5715	0.5763	0.3000	80.7	80.0	0.8	20.0
Nitrobenzene	Ave	0.3562	0.3632		81.6	80.0	2.0	20.0
Isophorone	Ave	0.6640	0.6578	0.4000	79.3	80.0	-0.9	20.0
2-Nitrophenol	Ave	0.1628	0.1510	0.1000	74.2	80.0	-7.2	20.0
2,4-Dimethylphenol	Ave	0.3446	0.3356	0.2000	77.9	80.0	-2.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.4057	0.4070	0.3000	80.2	80.0	0.3	20.0
Benzoic acid	Lin2		0.2051		147	160	-7.8	20.0
2,4-Dichlorophenol	Ave	0.3052	0.3048	0.2000	79.9	80.0	-0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3570	0.3588		80.4	80.0	0.5	20.0
Naphthalene	Ave	0.9947	1.006	0.7000	80.9	80.0	1.2	20.0
4-Chloroaniline	Ave	0.4411	0.4386	0.0100	79.5	80.0	-0.6	20.0
2,6-Dichlorophenol	Ave	0.3008	0.2973		79.1	80.0	-1.2	20.0
Hexachlorobutadiene	Ave	0.1968	0.2021	0.0100	82.1	80.0	2.7	20.0
Caprolactam	Ave	0.1582	0.1503		76.0	80.0	-5.0	20.0
4-Chloro-3-methylphenol	Ave	0.2776	0.2734	0.2000	78.8	80.0	-1.5	20.0
2-Methylnaphthalene	Ave	0.7175	0.7229	0.4000	80.6	80.0	0.8	20.0
1-Methylnaphthalene	Ave	0.6329	0.6315		79.8	80.0	-0.2	20.0
Hexachlorocyclopentadiene	Ave	0.3820	0.3455	0.0500	72.3	80.0	-9.6	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3369	0.3384	0.0100	80.3	80.0	0.4	20.0
2,4,6-Trichlorophenol	Ave	0.3632	0.3541	0.2000	78.0	80.0	-2.5	20.0
2,4,5-Trichlorophenol	Ave	0.3961	0.3910	0.2000	79.0	80.0	-1.3	20.0
1,1'-Biphenyl	Ave	1.465	1.468		80.1	80.0	0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab Sample ID: CCV 280-304326/3 Calibration Date: 11/16/2015 16:30
 Instrument ID: SMS_K Calib Start Date: 11/12/2015 12:40
 GC Column: Vf-5MS (30.25) ID: 0.25 (mm) Calib End Date: 11/12/2015 15:55
 Lab File ID: K141348.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.122	1.131	0.8000	80.7	80.0	0.8	20.0
2-Nitroaniline	Ave	0.2793	0.2975	0.0100	85.2	80.0	6.5	20.0
Dimethyl phthalate	Ave	1.116	1.102	0.0100	79.0	80.0	-1.3	20.0
1,3-Dinitrobenzene	Lin1		0.1613		82.2	80.0	2.8	20.0
2,6-Dinitrotoluene	Ave	0.2453	0.2634	0.2000	85.9	80.0	7.4	20.0
Acenaphthylene	Ave	1.735	1.730	0.9000	79.8	80.0	-0.2	20.0
3-Nitroaniline	Ave	0.2705	0.2938	0.0100	86.9	80.0	8.6	20.0
Acenaphthene	Ave	1.097	1.091	0.9000	79.5	80.0	-0.6	20.0
2,4-Dinitrophenol	Qua		0.0987	0.0100	161	160	0.7	20.0
4-Nitrophenol	Ave	0.1260	0.1432	0.0100	182	160	13.6	20.0
2,4-Dinitrotoluene	Lin2		0.3249	0.2000	82.7	80.0	3.3	20.0
Dibenzofuran	Ave	1.567	1.570	0.8000	80.1	80.0	0.1	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2923	0.2956	0.0100	80.9	80.0	1.1	20.0
Diethyl phthalate	Ave	1.061	1.044	0.0100	78.7	80.0	-1.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6155	0.6047	0.4000	78.6	80.0	-1.8	20.0
Fluorene	Ave	1.246	1.238	0.9000	79.5	80.0	-0.6	20.0
4-Nitroaniline	Ave	0.2567	0.2782	0.0100	86.7	80.0	8.4	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1018	0.0100	153	160	-4.5	20.0
N-Nitrosodiphenylamine	Ave	0.5479	0.5444	0.0100	159	160	-0.6	20.0
1,2-Diphenylhydrazine (as Azobenzene)	Ave	1.130	1.136		81.3	80.9	0.5	20.0
Azobenzene	Ave	1.143	1.148		80.4	80.0	0.5	20.0
4-Bromophenyl phenyl ether	Ave	0.2131	0.2154	0.1000	80.9	80.0	1.1	20.0
Hexachlorobenzene	Ave	0.2043	0.2034	0.1000	79.7	80.0	-0.4	20.0
Pentachlorophenol	Lin2		0.1260	0.0500	161	160	0.4	20.0
Phenanthrene	Ave	1.102	1.103	0.7000	80.1	80.0	0.0	20.0
Anthracene	Ave	1.119	1.116	0.7000	79.8	80.0	-0.3	20.0
Carbazole	Ave	1.008	1.007	0.0100	80.0	80.0	-0.0	20.0
Di-n-butyl phthalate	Ave	1.072	1.084	0.0100	80.9	80.0	1.1	20.0
Fluoranthene	Ave	1.162	1.180	0.6000	81.3	80.0	1.6	20.0
Pyrene	Ave	1.402	1.418	0.6000	80.9	80.0	1.2	20.0
Famphur	Ave	0.4456	0.4338		77.9	80.0	-2.7	20.0
Butyl benzyl phthalate	Ave	0.5418	0.5422	0.0100	80.1	80.0	0.0	20.0
3,3'-Dichlorobenzidine	Ave	0.3592	0.3391	0.0100	75.5	80.0	-5.6	20.0
Benzo[a]anthracene	Ave	1.247	1.263	0.8000	81.1	80.0	1.3	20.0
Chrysene	Ave	1.192	1.222	0.7000	82.0	80.0	2.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7191	0.6954	0.0100	77.4	80.0	-3.3	20.0
Di-n-octyl phthalate	Ave	1.207	1.089	0.0100	72.2	80.0	-9.8	20.0
Benzo[b]fluoranthene	Ave	1.233	1.254	0.7000	81.4	80.0	1.7	20.0
Benzo[k]fluoranthene	Ave	1.243	1.357	0.7000	87.4	80.0	9.2	20.0
Benzo[a]pyrene	Ave	1.203	1.269	0.7000	84.4	80.0	5.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Lab Sample ID: CCV 280-304326/3 Calibration Date: 11/16/2015 16:30
 Instrument ID: SMS_K Calib Start Date: 11/12/2015 12:40
 GC Column: Vf-5MS (30.25) ID: 0.25 (mm) Calib End Date: 11/12/2015 15:55
 Lab File ID: K141348.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Indeno[1,2,3-cd]pyrene	Ave	0.9362	0.9064	0.5000	77.4	80.0	-3.2	20.0
Dibenz(a,h)anthracene	Ave	1.039	1.065	0.4000	82.0	80.0	2.5	20.0
Benzo[g,h,i]perylene	Ave	1.091	1.132	0.5000	83.0	80.0	3.8	20.0
2-Fluorophenol (Surr)	Ave	1.353	1.341		79.3	80.0	-0.9	20.0
Phenol-d5 (Surr)	Ave	1.677	1.651		78.8	80.0	-1.5	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3825	0.3746		78.4	80.0	-2.1	20.0
2-Fluorobiphenyl	Ave	1.319	1.325		80.3	80.0	0.4	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1338	0.1295		77.5	80.0	-3.2	20.0
Terphenyl-d14 (Surr)	Ave	0.9189	0.9187		80.0	80.0	-0.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141348.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 16-Nov-2015 16:30:30 ALS Bottle#: 2 Worklist Smp#: 3
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Sublist: chrom-SMS_K_8270D*sub7
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 12:42:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	262160	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	100	951196	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	89	537454	40.0	40.0	
* 4 Phenanthrene-d10	188	9.218	9.218	0.000	96	828426	40.0	40.0	
* 5 Chrysene-d12	240	13.419	13.419	0.000	98	705701	40.0	40.0	
* 6 Perylene-d12	264	17.449	17.449	0.000	98	614870	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.583	3.583	0.000	94	703349	80.0	79.3	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	99	865599	80.0	78.8	
\$ 9 Nitrobenzene-d5	82	5.252	5.252	0.000	92	712703	80.0	78.4	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1423878	80.0	80.3	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	91	139212	80.0	77.5	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	1296717	80.0	80.0	
13 1,4-Dioxane	88	2.337	2.337	0.000	98	318390	80.0	81.2	
14 N-Nitrosodimethylamine	74	2.537	2.537	0.000	89	481708	80.0	79.7	
15 Pyridine	79	2.584	2.584	0.000	90	859121	80.0	81.4	
22 Phenol	94	4.376	4.376	0.000	99	883073	80.0	79.8	
23 Aniline	93	4.435	4.435	0.000	97	1101701	80.0	79.4	
24 Bis(2-chloroethyl)ether	93	4.470	4.470	0.000	96	711555	80.0	80.8	
26 2-Chlorophenol	128	4.553	4.553	0.000	97	703711	80.0	78.0	
27 1,3-Dichlorobenzene	146	4.699	4.699	0.000	99	834376	80.0	80.3	
28 1,4-Dichlorobenzene	146	4.758	4.758	0.000	94	842753	80.0	80.8	
29 Benzyl alcohol	108	4.846	4.846	0.000	92	459928	80.0	77.8	
30 2-Methylphenol	108	4.940	4.940	0.000	95	654723	80.0	80.2	
31 1,2-Dichlorobenzene	146	4.905	4.905	0.000	97	801411	80.0	80.4	
32 2,2'-oxybis[1-chloropropan	45	4.976	4.976	0.000	93	1088949	80.0	78.1	
35 3-Methylphenol	108	5.081	5.081	0.000	92	660797	80.0	79.4	
36 3 & 4 Methylphenol	108	5.081	5.081	0.000	98	660797	80.0	79.4	
37 4-Methylphenol	108	5.081	5.081	0.000	95	660797	80.0	79.4	
39 N-Nitrosodi-n-propylamine	70	5.093	5.093	0.000	93	474004	80.0	78.8	
40 Acetophenone	105	5.105	5.105	0.000	96	912032	80.0	81.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.234	5.234	0.000	91	302164	80.0	80.7	
44 Nitrobenzene	77	5.269	5.269	0.000	92	691014	80.0	81.6	
46 Isophorone	82	5.493	5.493	0.000	98	1251322	80.0	79.3	
47 2-Nitrophenol	139	5.581	5.581	0.000	94	287316	80.0	74.2	
48 2,4-Dimethylphenol	107	5.593	5.593	0.000	95	638388	80.0	77.9	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.000	99	774240	80.0	80.2	
51 Benzoic acid	105	5.704	5.704	0.000	90	780209	160.0	147.5	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	93	579789	80.0	79.9	
54 1,2,4-Trichlorobenzene	180	5.904	5.904	0.000	94	682606	80.0	80.4	
55 Naphthalene	128	5.980	5.980	0.000	98	1914537	80.0	80.9	
56 4-Chloroaniline	127	6.016	6.016	0.000	96	834381	80.0	79.5	
57 2,6-Dichlorophenol	162	6.033	6.033	0.000	98	565599	80.0	79.1	
59 Hexachlorobutadiene	225	6.104	6.104	0.000	95	384411	80.0	82.1	
60 Caprolactam	55	6.345	6.345	0.000	77	285979	80.0	76.0	M
63 4-Chloro-3-methylphenol	107	6.480	6.480	0.000	96	520095	80.0	78.8	
65 2-Methylnaphthalene	142	6.662	6.662	0.000	95	1375296	80.0	80.6	
66 1-Methylnaphthalene	142	6.768	6.768	0.000	95	1201280	80.0	79.8	
67 Hexachlorocyclopentadiene	237	6.832	6.832	0.000	95	371372	80.0	72.3	
68 1,2,4,5-Tetrachlorobenzene	216	6.838	6.838	0.000	96	643708	80.0	80.3	
70 2-Chloronaphthalene	162	7.155	7.155	0.000	95	1216224	80.0	80.7	
71 2,4,6-Trichlorophenol	196	6.938	6.938	0.000	80	380671	80.0	78.0	
72 2,4,5-Trichlorophenol	196	6.973	6.973	0.000	94	420311	80.0	79.0	
74 1,1'-Biphenyl	154	7.126	7.126	0.000	94	1577576	80.0	80.1	
76 2-Nitroaniline	65	7.238	7.238	0.000	84	319773	80.0	85.2	
79 Dimethyl phthalate	163	7.414	7.414	0.000	99	1184468	80.0	79.0	
80 2,6-Dinitrotoluene	165	7.473	7.473	0.000	95	283134	80.0	85.9	
81 1,3-Dinitrobenzene	168	7.443	7.443	0.000	86	173400	80.0	82.2	
82 Acenaphthylene	152	7.573	7.573	0.000	98	1859960	80.0	79.8	
83 3-Nitroaniline	138	7.649	7.649	0.000	95	315853	80.0	86.9	
84 Acenaphthene	153	7.749	7.749	0.000	92	1172194	80.0	79.5	
85 2,4-Dinitrophenol	184	7.755	7.755	0.000	83	212235	160.0	161.1	
86 4-Nitrophenol	109	7.808	7.808	0.000	93	307771	160.0	181.8	
88 2,4-Dinitrotoluene	165	7.884	7.884	0.000	95	349203	80.0	82.7	
89 Dibenzofuran	168	7.919	7.919	0.000	98	1687274	80.0	80.1	
91 2,3,4,6-Tetrachlorophenol	232	8.037	8.037	0.000	74	317772	80.0	80.9	
93 Diethyl phthalate	149	8.119	8.119	0.000	99	1122563	80.0	78.7	
95 4-Chlorophenyl phenyl ethe	204	8.248	8.248	0.000	91	650040	80.0	78.6	
97 Fluorene	166	8.266	8.266	0.000	94	1331249	80.0	79.5	
98 4-Nitroaniline	138	8.272	8.272	0.000	86	299064	80.0	86.7	
99 4,6-Dinitro-2-methylphenol	198	8.301	8.301	0.000	87	337160	160.0	152.8	
100 N-Nitrosodiphenylamine	169	8.366	8.366	0.000	62	1803918	160.0	159.0	
102 1,2-Diphenylhydrazine	77	8.413	8.413	0.000	98	1234157	80.9	81.3	
103 Azobenzene	77	8.413	8.413	0.000	99	1234157	80.0	80.4	
109 4-Bromophenyl phenyl ether	248	8.748	8.748	0.000	66	356945	80.0	80.9	
112 Hexachlorobenzene	284	8.836	8.836	0.000	93	336954	80.0	79.7	
114 Pentachlorophenol	266	9.024	9.024	0.000	92	417644	160.0	160.6	
119 Phenanthrene	178	9.241	9.241	0.000	97	1827569	80.0	80.1	
120 Anthracene	178	9.294	9.294	0.000	97	1848669	80.0	79.8	
121 Carbazole	167	9.441	9.441	0.000	95	1669263	80.0	80.0	
123 Di-n-butyl phthalate	149	9.788	9.788	0.000	100	1796086	80.0	80.9	
128 Fluoranthene	202	10.651	10.651	0.000	97	1955201	80.0	81.3	
129 Pyrene	202	10.998	10.998	0.000	97	2001971	80.0	80.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 Famphur	218	12.020	12.020	0.000	100	612212	80.0	77.9	
136 Butyl benzyl phthalate	149	12.150	12.150	0.000	98	765230	80.0	80.1	
139 3,3'-Dichlorobenzidine	252	13.348	13.348	0.000	73	478662	80.0	75.5	
140 Benzo[a]anthracene	228	13.395	13.395	0.000	99	1783050	80.0	81.1	
141 Chrysene	228	13.483	13.483	0.000	97	1724396	80.0	82.0	
142 Bis(2-ethylhexyl) phthalat	149	13.560	13.560	0.000	97	981512	80.0	77.4	
143 Di-n-octyl phthalate	149	15.411	15.411	0.000	99	1536577	80.0	72.2	
145 Benzo[b]fluoranthene	252	16.339	16.339	0.000	97	1542540	80.0	81.4	
146 Benzo[k]fluoranthene	252	16.415	16.415	0.000	99	1668967	80.0	87.4	
147 Benzo[a]pyrene	252	17.285	17.285	0.000	77	1560133	80.0	84.4	
150 Indeno[1,2,3-cd]pyrene	276	20.628	20.628	0.000	98	1279247	80.0	77.4	
151 Dibenz(a,h)anthracene	278	20.716	20.716	0.000	93	1309793	80.0	82.0	
152 Benzo[g,h,i]perylene	276	21.374	21.374	0.000	98	1392384	80.0	83.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV080_00067

Amount Added: 200.00

Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141348.D

Injection Date: 16-Nov-2015 16:30:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: CCV HSL

Worklist Smp#: 3

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

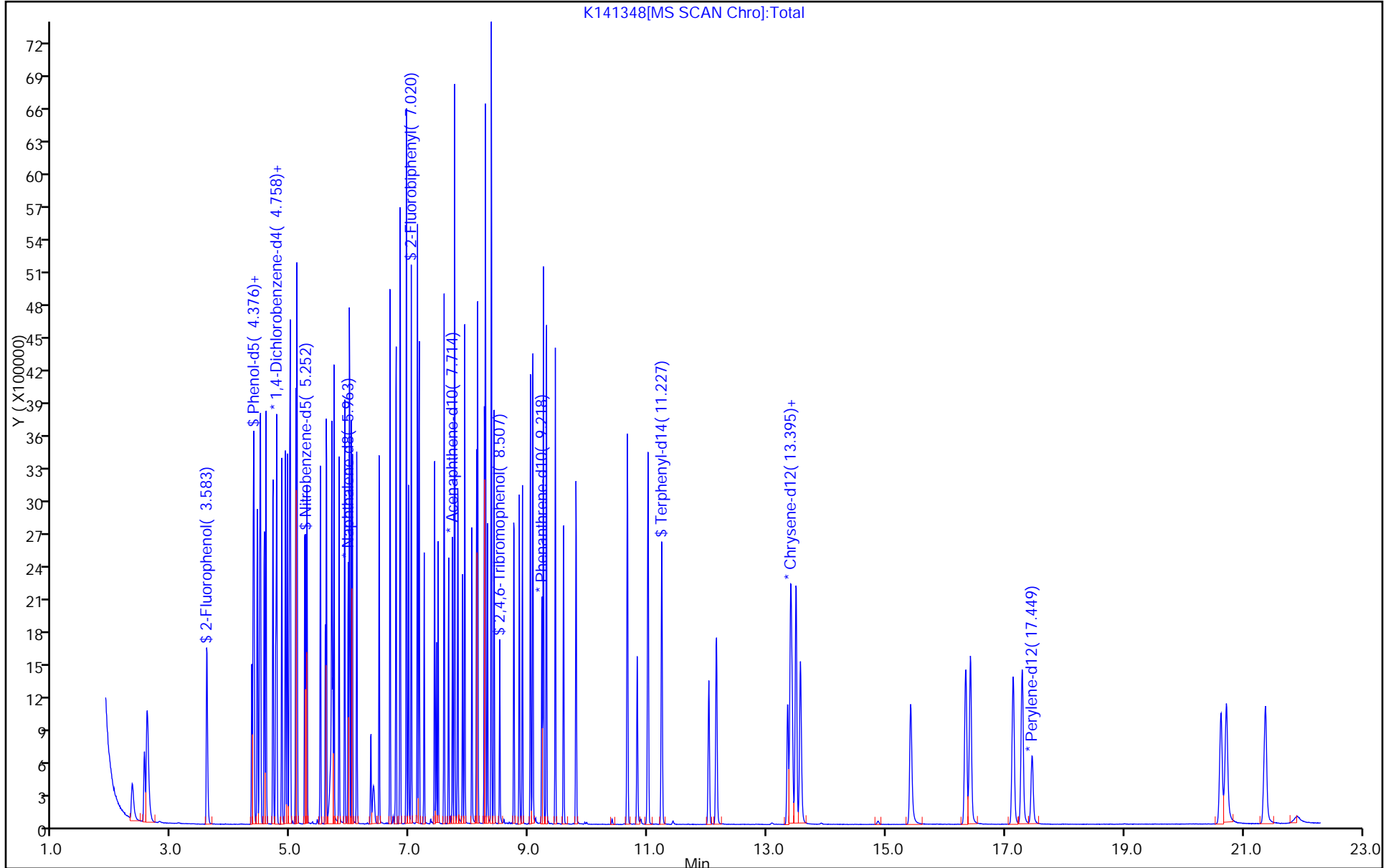
ALS Bottle#: 2

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



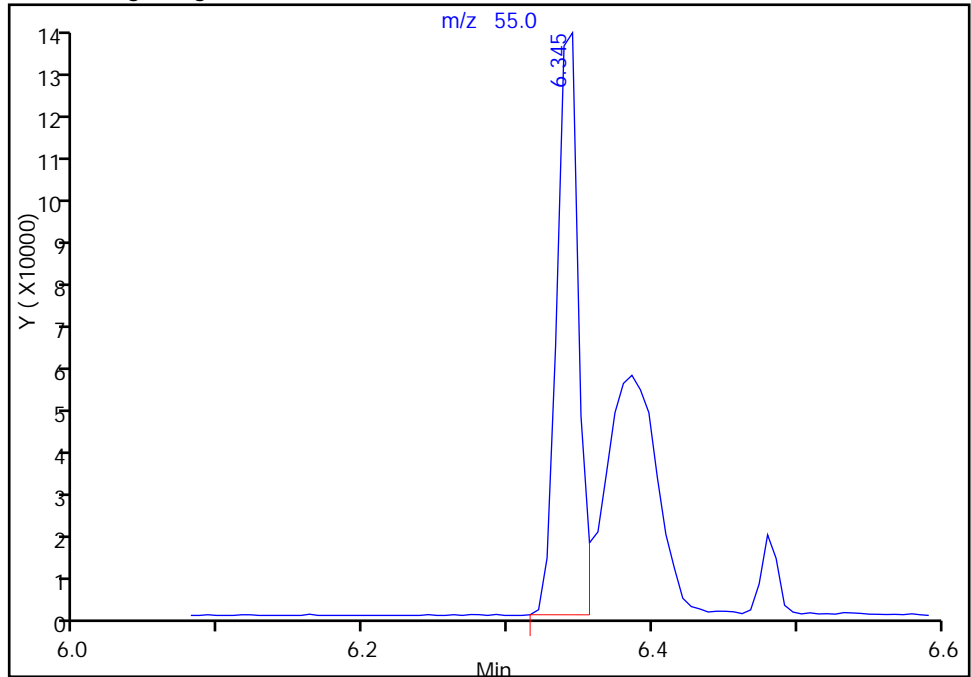
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141348.D
Injection Date: 16-Nov-2015 16:30:30 Instrument ID: SMS_K
Lims ID: CCV HSL
Client ID:
Operator ID: HOEFLERA ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

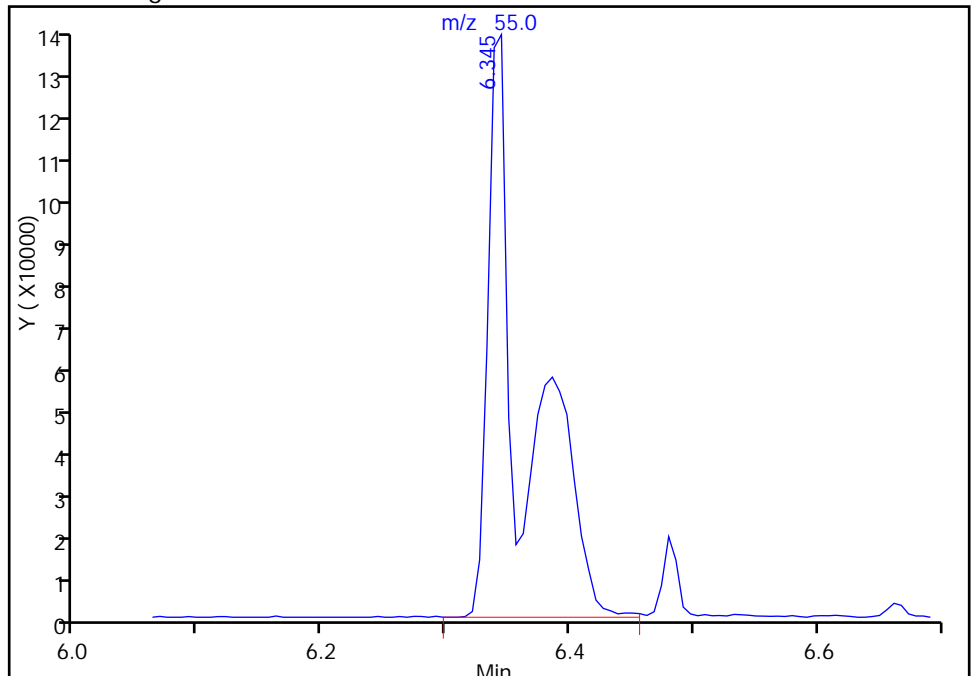
RT: 6.34
Area: 147327
Amount: 39.171703
Amount Units: ug/ml

Processing Integration Results



RT: 6.34
Area: 285979
Amount: 76.036874
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 17-Nov-2015 12:42:13
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141242.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 12-Nov-2015 12:29:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: KIEKELD Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 16-Nov-2015 09:06:47 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK022

First Level Reviewer: hoeflera Date: 14-Nov-2015 16:09:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
20 Pentachlorophenol_T	266	3.890	3.890	0.000	92	146277	NR	NR	
33 Benzidine_T	184	4.977	4.977	0.000	99	1151182	NR	NR	
156 DFTPP									
157 4,4'-DDE	246	5.112	5.112	0.000	5	665	NR	NR	
158 4,4'-DDD	235	5.382	5.382	0.000	72	5421	NR	NR	
159 4,4'-DDT	235	5.647	5.647	0.000	98	446628	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

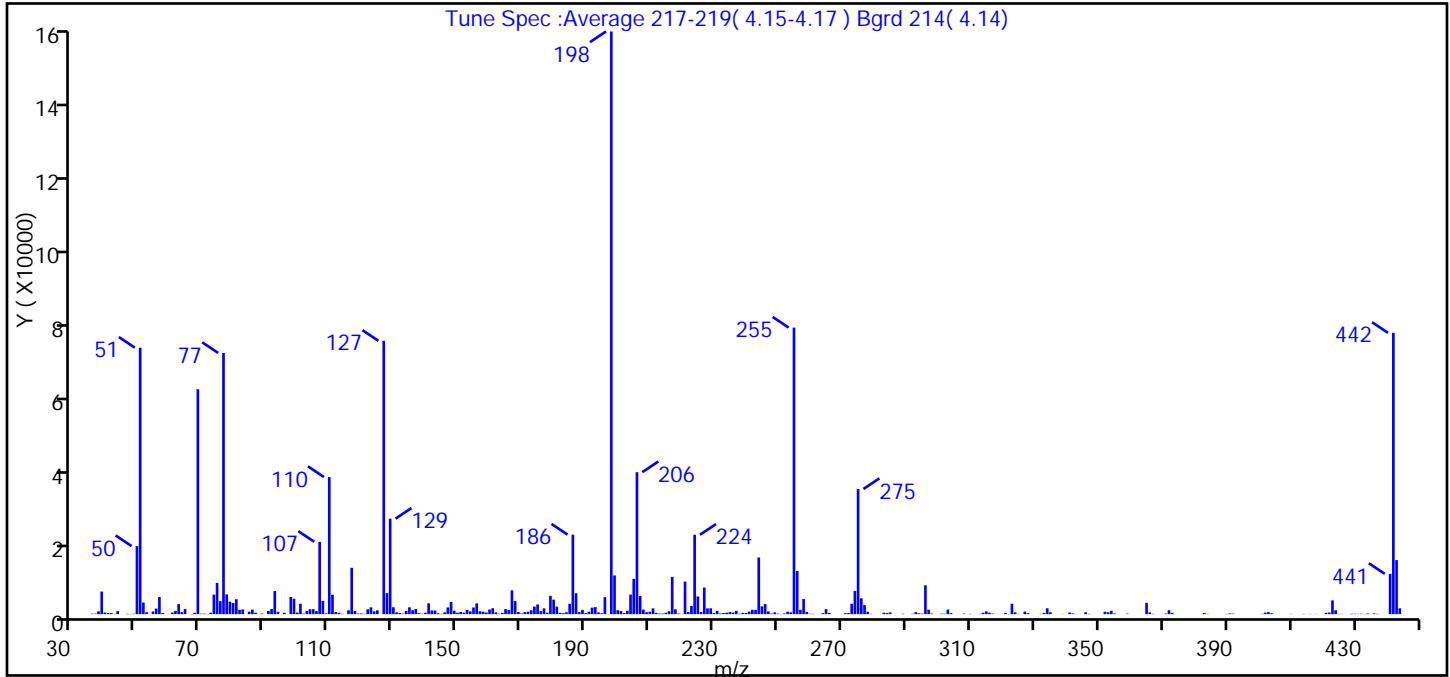
Reagents:

MS-DFTPP_00040 Amount Added: 200.00 Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141242.D
 Injection Date: 12-Nov-2015 12:29:30 Instrument ID: SMS_K
 Lims ID: DFTPP
 Client ID:
 Operator ID: KIEKELD ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMS_K_8270D Limit Group: MSSV - 8270D
 Tune Method: DFTPP Method 8270

156 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	45.7
68	<2% of mass 69	0.2 (0.6)
69	Present	38.6
70	<2% of mass 69	0.1 (0.2)
127	40-60% of mass 198	46.9
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.6
275	10-30% of mass 198	21.5
365	>1% of mass 198	1.9
441	Present but less than mass 443	6.9 (74.5)
442	>40% of mass 198	48.3
443	17-23% of mass 442	9.3 (19.2)

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141242.D\SMS_K_8270D.rsl\spectra.d
Injection Date: 12-Nov-2015 12:29:30
Spectrum: Tune Spec :Average 217-219(4.15-4.17) Bgrd 214(4.14)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	128	124.00	719	203.00	884	294.00	224
37.00	129	125.00	1004	204.00	5112	295.00	132
38.00	732	127.00	71480	205.00	9241	296.00	7542
39.00	5902	128.00	5497	206.00	37128	297.00	1158
40.00	421	129.00	24968	207.00	4749	298.00	143
41.00	296	130.00	1811	208.00	1195	301.00	119
42.00	287	131.00	485	209.00	514	302.00	106
43.00	86	132.00	281	210.00	631	303.00	1193
44.00	797	133.00	144	211.00	1512	304.00	266
47.00	99	134.00	817	212.00	341	308.00	134
48.00	57	135.00	1796	213.00	159	310.00	92
49.00	96	136.00	1033	214.00	148	313.00	80
50.00	17792	137.00	1335	215.00	358	314.00	375
51.00	69688	138.00	238	216.00	756	315.00	735
52.00	3024	139.00	93	217.00	9742	316.00	384
53.00	511	140.00	376	218.00	1275	317.00	144
55.00	699	141.00	2833	219.00	154	321.00	313
56.00	1459	142.00	970	220.00	62	322.00	50
57.00	4480	143.00	950	221.00	8496	323.00	2719
58.00	296	144.00	233	222.00	553	324.00	464
60.00	19	145.00	82	223.00	2133	325.00	66
61.00	417	146.00	462	224.00	20760	327.00	670
62.00	825	147.00	1751	225.00	4625	328.00	259
63.00	2627	148.00	3202	226.00	561	332.00	75
64.00	524	149.00	917	227.00	6961	333.00	313
65.00	1353	150.00	371	228.00	1514	334.00	1539
67.00	49	151.00	569	229.00	1532	335.00	497
68.00	348	152.00	376	230.00	284	339.00	52
69.00	58824	153.00	1135	231.00	868	341.00	425
70.00	116	154.00	725	232.00	183	342.00	183
71.00	124	155.00	1746	233.00	289	343.00	63
72.00	42	156.00	2817	234.00	368	346.00	494
73.00	373	157.00	756	235.00	575	347.00	92

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141242.D\SMS_K_8270D.rsl\spectra.d

Injection Date: 12-Nov-2015 12:29:30

Spectrum: Tune Spec :Average 217-219(4.15-4.17) Bgrd 214(4.14)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	5101	158.00	657	236.00	421	352.00	631
75.00	8150	159.00	438	237.00	871	353.00	487
76.00	3405	160.00	1219	238.00	113	354.00	885
77.00	68312	161.00	1557	239.00	332	355.00	185
78.00	5171	162.00	458	240.00	304	359.00	128
79.00	3252	163.00	112	241.00	664	365.00	2957
80.00	2911	164.00	330	242.00	1131	366.00	448
81.00	3910	165.00	1327	243.00	1112	367.00	93
82.00	1111	166.00	1065	244.00	14818	371.00	151
83.00	1222	167.00	6226	245.00	2028	372.00	1024
85.00	639	168.00	3419	246.00	2643	373.00	346
86.00	1180	169.00	554	247.00	706	383.00	290
87.00	382	170.00	179	248.00	161	384.00	79
89.00	147	171.00	520	249.00	462	390.00	66
91.00	841	172.00	639	250.00	134	391.00	188
92.00	1344	173.00	1018	251.00	53	392.00	129
93.00	6048	174.00	1958	252.00	166	401.00	78
94.00	622	175.00	2542	253.00	620	402.00	384
96.00	359	176.00	786	254.00	471	403.00	517
98.00	4489	177.00	1518	255.00	74936	404.00	244
99.00	4029	178.00	386	256.00	11296	410.00	53
100.00	414	179.00	4786	257.00	1126	414.00	71
101.00	2714	180.00	3798	258.00	3954	416.00	54
102.00	140	181.00	1962	259.00	589	418.00	52
103.00	847	182.00	342	260.00	105	421.00	347
104.00	1286	183.00	260	261.00	73	422.00	430
105.00	1313	184.00	488	264.00	268	423.00	3591
106.00	796	185.00	2709	265.00	1318	424.00	1016
107.00	18912	186.00	20800	266.00	356	425.00	68
108.00	3468	187.00	5465	271.00	252	426.00	57
109.00	213	188.00	561	272.00	300	429.00	110
110.00	35864	189.00	1117	273.00	2715	430.00	101
111.00	5077	190.00	273	274.00	6062	431.00	68
112.00	566	191.00	626	275.00	32736	432.00	101

Report Date: 16-Nov-2015 09:06:48

Chrom Revision: 2.2 08-Oct-2015 07:17:48

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141242.D\SMS_K_8270D.rsl\spectra.d

Injection Date: 12-Nov-2015 12:29:30

Spectrum: Tune Spec :Average 217-219(4.15-4.17) Bgrd 214(4.14)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	348	192.00	1701	276.00	4138	433.00	55
114.00	93	193.00	1843	277.00	2370	434.00	172
116.00	1013	194.00	470	278.00	625	436.00	196
117.00	12112	195.00	227	279.00	72	437.00	84
118.00	839	196.00	4445	283.00	374	441.00	10525
119.00	171	198.00	152384	284.00	305	442.00	73568
120.00	181	199.00	10124	285.00	467	443.00	14136
121.00	81	200.00	1038	289.00	110	444.00	1527
122.00	1281	201.00	841	292.00	102		
123.00	1785	202.00	272	293.00	535		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141345.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 16-Nov-2015 15:27:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:48 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera Date: 17-Nov-2015 12:32:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
20 Pentachlorophenol_T	266	3.872	3.872	0.000	92	77679	NR	NR	
33 Benzidine_T	184	4.959	4.959	0.000	99	802606	NR	NR	
156 DFTPP									
157 4,4'-DDE	246	5.094	5.094	0.000	1	0	NR	NR	
158 4,4'-DDD	235	5.394	5.394	0.000	55	3251	NR	NR	
159 4,4'-DDT	235	5.623	5.623	0.000	98	258600	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

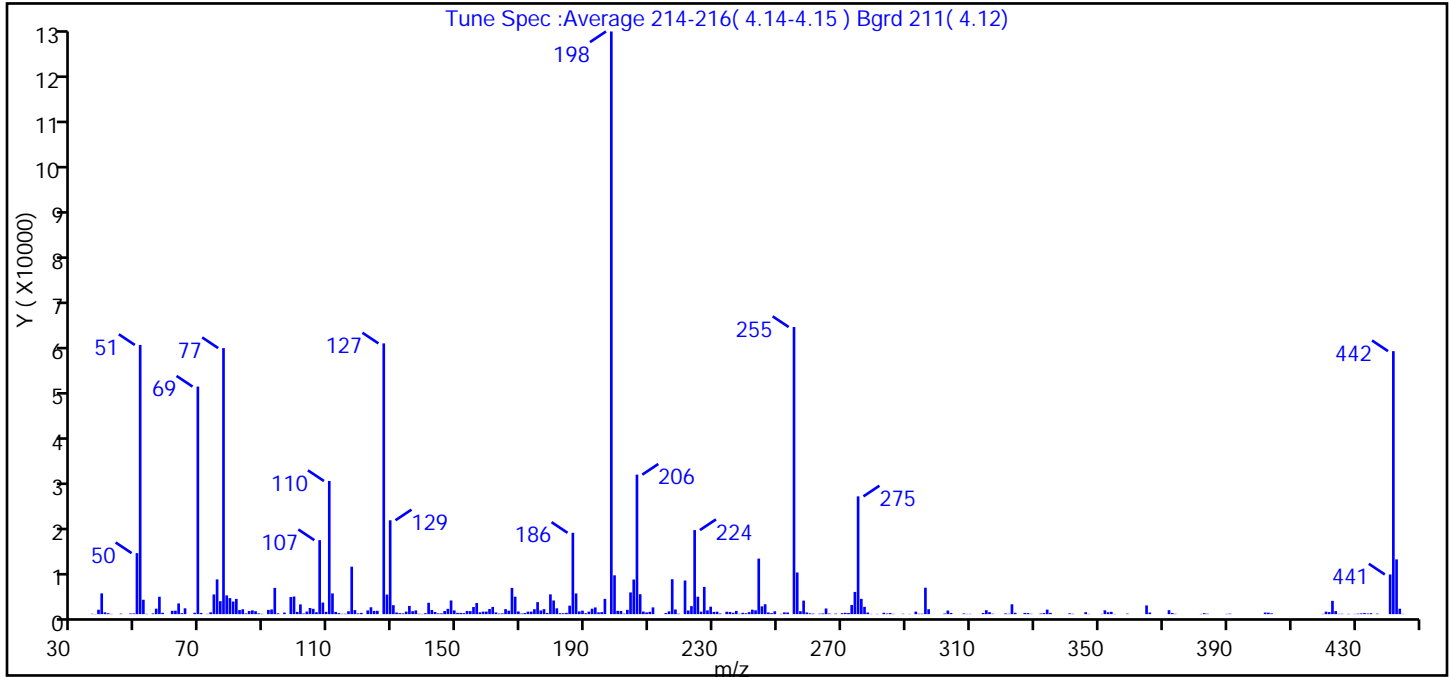
Reagents:

MS-DFTPP_00040 Amount Added: 200.00 Units: uL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141345.D
 Injection Date: 16-Nov-2015 15:27:30 Instrument ID: SMS_K
 Lims ID: DFTPP
 Client ID:
 Operator ID: HOEFLERA ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMS_K_8270D Limit Group: MSSV - 8270D
 Tune Method: DFTPP Method 8270

156 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	46.2
68	<2% of mass 69	0.2 (0.6)
69	Present	39.1
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	46.5
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.7
275	10-30% of mass 198	20.2
365	>1% of mass 198	1.5
441	Present but less than mass 443	6.8 (72.4)
442	>40% of mass 198	45.1
443	17-23% of mass 442	9.4 (20.8)

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141345.D\SMS_K_8270D.rsl\spectra.d
Injection Date: 16-Nov-2015 15:27:30
Spectrum: Tune Spec :Average 214-216(4.14-4.15) Bgrd 211(4.12)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	74	124.00	713	200.00	729	286.00	60
37.00	32	125.00	741	201.00	700	289.00	85
38.00	974	127.00	59920	202.00	118	291.00	50
39.00	4603	128.00	4331	203.00	952	293.00	556
40.00	400	129.00	20776	204.00	4808	294.00	88
41.00	213	130.00	1986	205.00	7668	295.00	99
42.00	57	131.00	361	206.00	30872	296.00	5854
45.00	115	132.00	223	207.00	4413	297.00	1090
48.00	152	133.00	173	208.00	576	302.00	132
49.00	153	134.00	558	209.00	389	303.00	794
50.00	13502	135.00	1814	210.00	526	304.00	269
51.00	59576	136.00	661	211.00	1497	308.00	152
52.00	3184	137.00	827	215.00	244	309.00	56
53.00	68	138.00	90	216.00	616	310.00	67
55.00	165	139.00	55	217.00	7730	314.00	260
56.00	1210	140.00	214	218.00	1031	315.00	871
57.00	3851	141.00	2509	219.00	97	316.00	442
58.00	306	142.00	924	221.00	7446	317.00	93
61.00	732	143.00	476	222.00	806	321.00	169
62.00	765	144.00	170	223.00	1781	322.00	83
63.00	2372	145.00	183	224.00	18608	323.00	2188
64.00	210	146.00	691	225.00	3863	324.00	299
65.00	1291	147.00	1177	226.00	545	327.00	271
68.00	302	148.00	3030	227.00	6026	328.00	240
69.00	50360	149.00	820	228.00	824	329.00	74
70.00	268	150.00	287	229.00	1652	332.00	128
72.00	59	151.00	274	230.00	495	333.00	228
73.00	407	152.00	228	231.00	542	334.00	1000
74.00	4358	153.00	703	232.00	145	335.00	281
75.00	7691	154.00	665	234.00	531	341.00	176
76.00	2870	155.00	1575	235.00	488	342.00	80
77.00	58880	156.00	2466	236.00	311	346.00	432
78.00	4150	157.00	407	237.00	709	347.00	55

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141345.D\SMS_K_8270D.rsl\spectra.d

Injection Date: 16-Nov-2015 15:27:30

Spectrum: Tune Spec :Average 214-216(4.14-4.15) Bgrd 211(4.12)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	3551	158.00	563	238.00	77	351.00	56
80.00	2792	159.00	566	239.00	290	352.00	848
81.00	3374	160.00	1124	240.00	194	353.00	427
82.00	898	161.00	1597	241.00	444	354.00	519
83.00	1085	162.00	376	242.00	988	355.00	53
84.00	164	163.00	124	243.00	846	359.00	112
85.00	682	164.00	166	244.00	12289	365.00	1929
86.00	843	165.00	1112	245.00	1731	366.00	360
87.00	653	166.00	763	246.00	2194	372.00	869
88.00	173	167.00	5810	247.00	375	373.00	265
89.00	75	168.00	3862	248.00	225	374.00	79
91.00	937	169.00	583	249.00	627	382.00	53
92.00	1038	170.00	130	251.00	67	383.00	212
93.00	5809	171.00	247	252.00	395	384.00	89
94.00	180	172.00	549	253.00	370	390.00	67
96.00	344	173.00	558	255.00	63544	391.00	114
98.00	3789	174.00	1095	256.00	9223	402.00	354
99.00	3906	175.00	2657	257.00	655	403.00	328
100.00	492	176.00	812	258.00	2999	404.00	175
101.00	2155	177.00	1112	259.00	376	420.00	62
102.00	139	178.00	270	260.00	181	421.00	557
103.00	568	179.00	4379	261.00	111	422.00	451
104.00	1362	180.00	3024	263.00	101	423.00	2943
105.00	1175	181.00	1290	264.00	152	424.00	678
106.00	425	182.00	205	265.00	1250	425.00	65
107.00	16379	183.00	194	266.00	130	426.00	82
108.00	2564	184.00	287	268.00	115	428.00	71
109.00	504	185.00	1872	270.00	216	430.00	58
110.00	29464	186.00	18000	271.00	291	431.00	111
111.00	4592	187.00	4578	272.00	263	432.00	158
112.00	502	188.00	605	273.00	2025	433.00	228
113.00	227	189.00	780	274.00	4916	434.00	126
114.00	76	190.00	203	275.00	26064	435.00	213
115.00	85	191.00	561	276.00	3378	437.00	114

Report Date: 17-Nov-2015 13:46:49

Chrom Revision: 2.2 08-Oct-2015 07:17:48

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141345.D\SMS_K_8270D.rsl\spectra.d

Injection Date: 16-Nov-2015 15:27:30

Spectrum: Tune Spec :Average 214-216(4.14-4.15) Bgrd 211(4.12)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	645	192.00	1205	277.00	1620	441.00	8781
117.00	10500	193.00	1483	278.00	358	442.00	58208
118.00	895	194.00	396	279.00	50	443.00	12122
119.00	168	195.00	451	281.00	55	444.00	1206
120.00	286	196.00	3386	283.00	303	445.00	60
122.00	821	198.00	128952	284.00	141		
123.00	1517	199.00	8592	285.00	243		

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-304110/1-A
 Matrix: Water Lab File ID: K141351.D
 Analysis Method: 8270D Date Collected: _____
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 1000 (mL) Date Analyzed: 11/16/2015 17:48
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 0.5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	78		42-131
321-60-8	2-Fluorobiphenyl	85		48-120
367-12-4	2-Fluorophenol (Surr)	89		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	86		42-120
4165-62-2	Phenol-d5 (Surr)	91		45-124
1718-51-0	Terphenyl-d14 (Surr)	91		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141351.D
 Lims ID: MB 280-304110/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Nov-2015 17:48:30 ALS Bottle#: 6 Worklist Smp#: 9
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: MB280-303390_1-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 12:43:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	232250	40.0	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	100	875638	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	539949	40.0	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	98	885280	40.0	40.0	
* 5 Chrysene-d12	240	13.413	13.419	-0.006	99	696618	40.0	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	569553	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	94	696632	100.0	88.7	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	885795	100.0	91.0	
\$ 9 Nitrobenzene-d5	82	5.252	5.252	0.000	91	721629	100.0	86.2	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1514942	100.0	85.1	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	92	141252	100.0	78.2	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	100	1449235	100.0	90.6	
13 1,4-Dioxane	88		2.337					ND	
14 N-Nitrosodimethylamine	74		2.537					ND	
15 Pyridine	79		2.584					ND	
16 2-Picoline	93		2.678					ND	
17 N-Nitrosomethylethylamine	88		2.755					ND	
18 Methyl methanesulfonate	80		3.013					ND	
19 N-Nitrosodiethylamine	102		3.377					ND	
20 Pentachlorophenol_T	266		3.872					ND	
21 Ethyl methanesulfonate	79		3.636					ND	
22 Phenol	94		4.376					ND	
23 Aniline	93		4.435					ND	
24 Bis(2-chloroethyl)ether	93		4.470					ND	
25 Pentachloroethane	117		4.118					ND	
26 2-Chlorophenol	128		4.553					ND	
27 1,3-Dichlorobenzene	146		4.699					ND	
28 1,4-Dichlorobenzene	146		4.758					ND	
29 Benzyl alcohol	108		4.846					ND	
30 2-Methylphenol	108		4.940					ND	
31 1,2-Dichlorobenzene	146		4.905					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.976					ND	
33 Benzidine_T	184		4.959					ND	
34 N-Nitrosopyrrolidine	100		4.711					ND	
35 3-Methylphenol	108		5.081					ND	
36 3 & 4 Methylphenol	108		5.081					ND	
37 4-Methylphenol	108		5.081					ND	
38 N-Nitrosomorpholine	116		4.746					ND	
39 N-Nitrosodi-n-propylamine	70		5.093					ND	
40 Acetophenone	105		5.105					ND	
41 2-Toluidine	106		4.782					ND	
42 Benzaldehyde	106		4.071					ND	
43 Hexachloroethane	117		5.234					ND	
44 Nitrobenzene	77		5.269					ND	
45 N-Nitrosopiperidine	114		5.046					ND	
46 Isophorone	82		5.493					ND	
47 2-Nitrophenol	139		5.581					ND	
48 2,4-Dimethylphenol	107		5.593					ND	
49 o,o',o"-Triethylphosphoro	198		5.322					ND	
50 Bis(2-chloroethoxy)methane	93		5.687					ND	
51 Benzoic acid	105		5.704					ND	
52 alpha,alpha-Dimethyl phene	58		5.487					ND	
53 2,4-Dichlorophenol	162		5.810					ND	
54 1,2,4-Trichlorobenzene	180		5.904					ND	
55 Naphthalene	128		5.980					ND	
56 4-Chloroaniline	127		6.016					ND	
57 2,6-Dichlorophenol	162		6.033					ND	
58 Hexachloropropene	213		5.716					ND	
59 Hexachlorobutadiene	225		6.104					ND	
60 Caprolactam	55		6.345					ND	
61 N-Nitrosodi-n-butylamine	84		5.997					ND	
62 p-Phenylene diamine	108	5.957	5.998	-0.041	48	82555		NC	
63 4-Chloro-3-methylphenol	107		6.480					ND	
64 Safrole, Total	162		6.209					ND	
65 2-Methylnaphthalene	142		6.662					ND	
66 1-Methylnaphthalene	142		6.768					ND	
67 Hexachlorocyclopentadiene	237		6.832					ND	
68 1,2,4,5-Tetrachlorobenzene	216		6.838					ND	
69 Isosafrole Peak 1	162		6.497					ND	
70 2-Chloronaphthalene	162		7.155					ND	
71 2,4,6-Trichlorophenol	196		6.938					ND	
72 2,4,5-Trichlorophenol	196		6.973					ND	
73 Isosafrole Peak 2	104		6.721					ND	
74 1,1'-Biphenyl	154		7.126					ND	
75 1-Chloronaphthalene	162		6.809					ND	
76 2-Nitroaniline	65		7.238					ND	
77 1,4-Naphthoquinone	158	7.020	6.944	0.076	44	2260		NC	
78 1,4-Dinitrobenzene	168		6.997					ND	
79 Dimethyl phthalate	163		7.414					ND	
80 2,6-Dinitrotoluene	165		7.473					ND	
81 1,3-Dinitrobenzene	168		7.443					ND	
82 Acenaphthylene	152		7.573					ND	
83 3-Nitroaniline	138		7.649					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.749					ND	
85 2,4-Dinitrophenol	184		7.755					ND	
86 4-Nitrophenol	109		7.808					ND	
87 Pentachlorobenzene	250		7.514					ND	
88 2,4-Dinitrotoluene	165		7.884					ND	
89 Dibenzofuran	168		7.919					ND	
90 1-Naphthylamine	143		7.766					ND	
91 2,3,4,6-Tetrachlorophenol	232		8.037					ND	
92 2-Naphthylamine	143		7.766					ND	
93 Diethyl phthalate	149		8.119					ND	
94 Thionazin	97		7.837					ND	
95 4-Chlorophenyl phenyl ethe	204		8.248					ND	
96 N-Nitro-o-toluidine	152		7.884					ND	
97 Fluorene	166		8.266					ND	
98 4-Nitroaniline	138		8.272					ND	
99 4,6-Dinitro-2-methylphenol	198		8.301					ND	
100 N-Nitrosodiphenylamine	169		8.366					ND	
101 Diphenylamine	169		7.990					ND	
102 1,2-Diphenylhydrazine	77		8.413					ND	
103 Azobenzene	77		8.413					ND	
104 Sulfotepp	97		8.148					ND	
105 1,3,5-Trinitrobenzene	213		8.236					ND	
106 Diallate Peak 1	86		8.283					ND	
107 Phenacetin	108		8.295					ND	
108 Phorate	121		8.289					ND	
109 4-Bromophenyl phenyl ether	248		8.748					ND	
110 Diallate Peak 2	86		8.372					ND	
111 Dimethoate	87		8.448					ND	
112 Hexachlorobenzene	284		8.836					ND	
113 4-Aminobiphenyl	169	8.507	8.624	-0.117	57	5835			NC
114 Pentachlorophenol	266		9.024					ND	
115 Pentachloronitrobenzene	237		8.654					ND	
116 Pronamide	173	8.507	8.689	-0.182	56	3301			NC
117 Disulfoton	88		8.812					ND	
118 Dinoseb	211		8.818					ND	
119 Phenanthrene	178		9.241					ND	
120 Anthracene	178		9.294					ND	
121 Carbazole	167		9.441					ND	
122 Methyl parathion	109		9.182					ND	
123 Di-n-butyl phthalate	149		9.788					ND	
124 Ethyl Parathion	109		9.582					ND	
125 4-Nitroquinoline-1-oxide	190		9.611					ND	
126 Methapyrilene	97		9.435					ND	
127 Isodrin	193		9.940					ND	
128 Fluoranthene	202		10.651					ND	
129 Pyrene	202		10.998					ND	
130 Aramite Peak 1	185		10.604					ND	
131 Aramite Peak 2	185		10.722					ND	
132 p-Dimethylamino azobenzene	120		10.851					ND	
133 Chlorobenzilate	251		10.933					ND	
134 Famphur	218		12.020					ND	
135 3,3'-Dimethylbenzidine	212	11.227	11.415	-0.188	56	108906			NC

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149		12.150					ND	
137 2-Acetylaminofluorene	181		11.897					ND	
138 4,4'-Methylene bis(2-chlor	231		12.520					ND	
139 3,3'-Dichlorobenzidine	252		13.348					ND	
140 Benzo[a]anthracene	228		13.395					ND	
141 Chrysene	228		13.483					ND	
142 Bis(2-ethylhexyl) phthalat	149		13.560					ND	
143 Di-n-octyl phthalate	149		15.411					ND	
144 7,12-Dimethylbenz(a)anthra	256		15.234					ND	
145 Benzo[b]fluoranthene	252		16.339					ND	
146 Benzo[k]fluoranthene	252		16.415					ND	
147 Benzo[a]pyrene	252		17.285					ND	
148 3-Methylcholanthrene	268		17.156					ND	
149 Dibenz[a,j]acridine	279		18.830					ND	
150 Indeno[1,2,3-cd]pyrene	276		20.628					ND	
151 Dibenz(a,h)anthracene	278		20.716					ND	
152 Benzo[g,h,i]perylene	276		21.374					ND	
153 Benzidine	184		10.428					ND	
S 160 Aramite, Total	185		15.047					ND	
S 161 Diallate	86		15.047					ND	
S 162 Isosafrole	162		15.047					ND	
154 Hexachlorophene	196		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDE	246		5.094					ND	
158 4,4'-DDD	235		5.394					ND	
159 4,4'-DDT	235		5.623					ND	
S 163 Total Cresols	1		0.000					ND	
S 164 Methyl Phenols, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141351.D

Injection Date: 16-Nov-2015 17:48:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: MB 280-304110/1-A

Worklist Smp#: 9

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

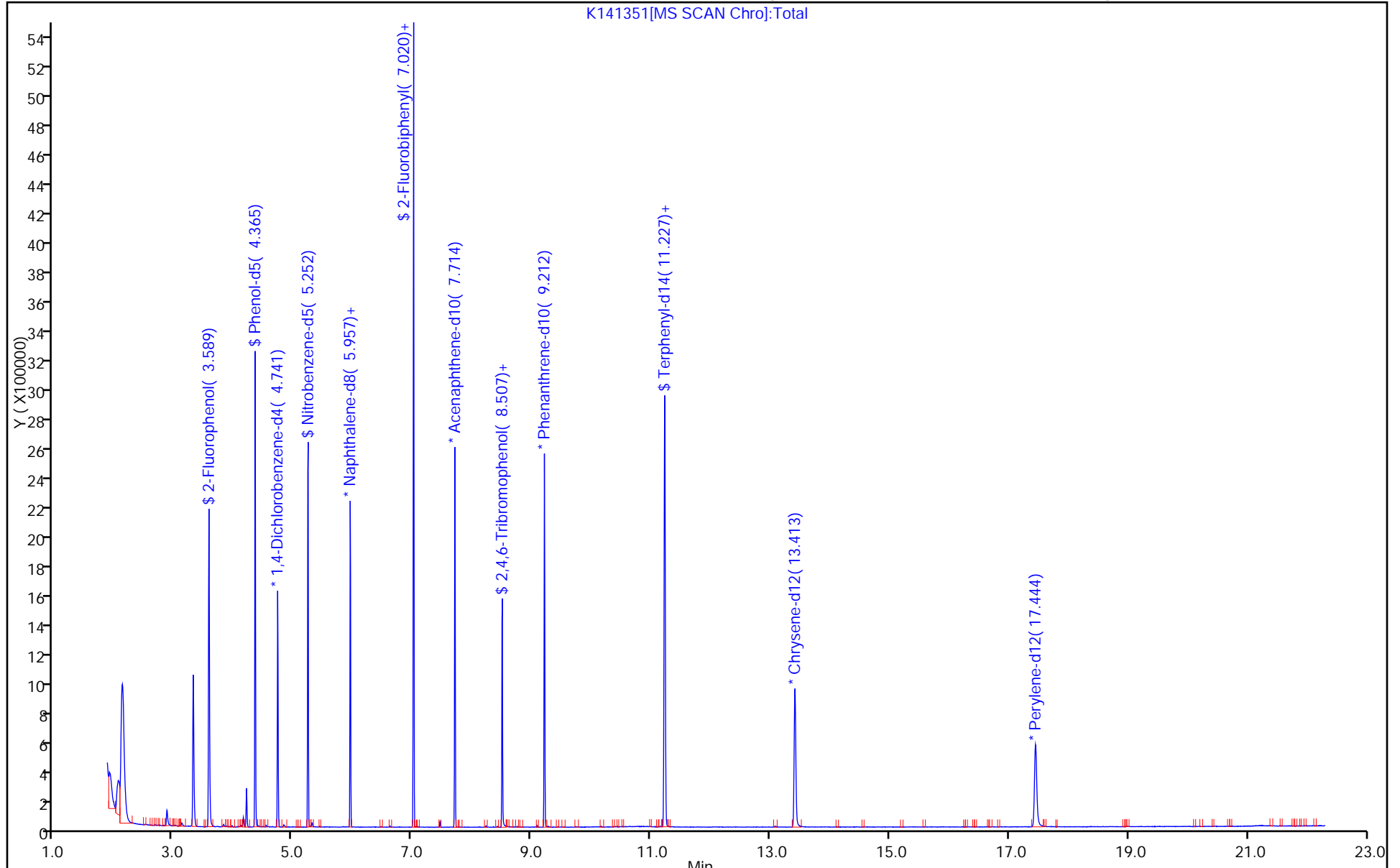
ALS Bottle#: 6

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-304110/2-A
 Matrix: Water Lab File ID: K141352.D
 Analysis Method: 8270D Date Collected: _____
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 1000 (mL) Date Analyzed: 11/16/2015 18:15
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 0.5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	72.6		5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	88		42-131
321-60-8	2-Fluorobiphenyl	87		48-120
367-12-4	2-Fluorophenol (Surr)	87		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	88		42-120
4165-62-2	Phenol-d5 (Surr)	88		45-124
1718-51-0	Terphenyl-d14 (Surr)	86		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141352.D
 Lims ID: LCS 280-304110/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 16-Nov-2015 18:15:30 ALS Bottle#: 7 Worklist Smp#: 10
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: LCS280-303390_2-A
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 12:48:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	97	248193	40.0	40.0	
* 2 Naphthalene-d8	136	5.963	5.963	0.000	99	930059	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	530662	40.0	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	829004	40.0	40.0	
* 5 Chrysene-d12	240	13.419	13.419	0.000	98	692774	40.0	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	616287	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	94	729957	100.0	86.9	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	911854	100.0	87.6	
\$ 9 Nitrobenzene-d5	82	5.252	5.252	0.000	91	780589	100.0	87.8	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1514598	100.0	86.5	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	90	156979	100.0	88.5	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	1371052	100.0	86.2	
13 1,4-Dioxane	88	2.332	2.337	-0.005	98	243273	80.0	65.6	
14 N-Nitrosodimethylamine	74	2.537	2.537	0.000	89	411515	80.0	71.9	
15 Pyridine	79	2.578	2.584	-0.006	90	640389	80.0	64.1	
22 Phenol	94	4.376	4.376	0.000	98	732749	80.0	70.0	
23 Aniline	93	4.435	4.435	0.000	98	532253	80.0	40.5	
24 Bis(2-chloroethyl)ether	93	4.470	4.470	0.000	96	618808	80.0	74.2	
26 2-Chlorophenol	128	4.553	4.553	0.000	97	603606	80.0	70.7	
27 1,3-Dichlorobenzene	146	4.694	4.699	-0.005	99	663654	80.0	67.5	
28 1,4-Dichlorobenzene	146	4.758	4.758	0.000	95	681697	80.0	69.0	
29 Benzyl alcohol	108	4.846	4.846	0.000	92	402662	80.0	71.9	
30 2-Methylphenol	108	4.940	4.940	0.000	95	549680	80.0	71.1	
31 1,2-Dichlorobenzene	146	4.905	4.905	0.000	98	650574	80.0	69.0	
32 2,2'-oxybis[1-chloropropan	45	4.976	4.976	0.000	93	931098	80.0	70.6	
35 3-Methylphenol	108	5.081	5.081	0.000	92	562543	80.0	71.4	
36 3 & 4 Methylphenol	108	5.081	5.081	0.000	98	562543	80.0	71.4	
37 4-Methylphenol	108	5.081	5.081	0.000	95	562543	80.0	71.4	
39 N-Nitrosodi-n-propylamine	70	5.093	5.093	0.000	94	420617	80.0	73.9	
40 Acetophenone	105	5.099	5.105	-0.006	96	775881	80.0	73.1	
42 Benzaldehyde	106		4.071				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.228	5.234	-0.006	96	237472	80.0	67.0	
44 Nitrobenzene	77	5.270	5.269	0.001	91	600639	80.0	72.5	
46 Isophorone	82	5.493	5.493	0.000	99	1082493	80.0	70.1	
47 2-Nitrophenol	139	5.575	5.581	-0.006	95	256209	80.0	67.7	
48 2,4-Dimethylphenol	107	5.593	5.593	0.000	95	483696	80.0	60.4	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.000	98	683420	80.0	72.4	
51 Benzoic acid	105	5.669	5.704	-0.035	93	269465	80.0	58.8	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	93	490966	80.0	69.2	
54 1,2,4-Trichlorobenzene	180	5.904	5.904	0.000	94	554334	80.0	66.8	
55 Naphthalene	128	5.980	5.980	0.000	98	1603404	80.0	69.3	
56 4-Chloroaniline	127	6.016	6.016	0.000	96	336273	80.0	32.8	
57 2,6-Dichlorophenol	162	6.027	6.033	-0.006	98	483025	80.0	69.1	
59 Hexachlorobutadiene	225	6.104	6.104	0.000	96	304058	80.0	66.5	
60 Caprolactam	55	6.339	6.345	-0.006	77	266831	80.0	72.6	M
63 4-Chloro-3-methylphenol	107	6.480	6.480	0.000	96	464315	80.0	71.9	
65 2-Methylnaphthalene	142	6.662	6.662	0.000	95	1163412	80.0	69.7	
66 1-Methylnaphthalene	142	6.762	6.768	-0.006	95	1056002	80.0	71.8	
67 Hexachlorocyclopentadiene	237	6.832	6.832	0.000	95	60311	80.0	11.9	
68 1,2,4,5-Tetrachlorobenzene	216	6.838	6.838	0.000	96	553164	80.0	70.6	
70 2-Chloronaphthalene	162	7.150	7.155	-0.005	96	1039301	80.0	69.8	
71 2,4,6-Trichlorophenol	196	6.938	6.938	0.000	91	358627	80.0	74.4	
72 2,4,5-Trichlorophenol	196	6.973	6.973	0.000	94	378229	80.0	72.0	
74 1,1'-Biphenyl	154	7.126	7.126	0.000	94	1378812	80.0	70.9	
76 2-Nitroaniline	65	7.238	7.238	0.000	86	286493	80.0	77.3	
79 Dimethyl phthalate	163	7.414	7.414	0.000	99	1108979	80.0	74.9	
80 2,6-Dinitrotoluene	165	7.473	7.473	0.000	95	260234	80.0	80.0	
81 1,3-Dinitrobenzene	168	7.443	7.443	0.000	87	160204	80.0	77.4	
82 Acenaphthylene	152	7.573	7.573	0.000	98	1603053	80.0	69.7	
83 3-Nitroaniline	138	7.649	7.649	0.000	97	156118	80.0	43.5	
84 Acenaphthene	153	7.749	7.749	0.000	91	1044898	80.0	71.8	
85 2,4-Dinitrophenol	184	7.749	7.755	-0.006	79	181109	160.0	144.1	
86 4-Nitrophenol	109	7.802	7.808	-0.006	96	273468	160.0	163.6	
88 2,4-Dinitrotoluene	165	7.884	7.884	0.000	95	331646	80.0	79.7	
89 Dibenzofuran	168	7.919	7.919	0.000	97	1484675	80.0	71.4	
91 2,3,4,6-Tetrachlorophenol	232	8.037	8.037	0.000	73	283242	80.0	73.0	
93 Diethyl phthalate	149	8.119	8.119	0.000	98	1064523	80.0	75.6	
95 4-Chlorophenyl phenyl ethe	204	8.248	8.248	0.000	90	595367	80.0	72.9	
97 Fluorene	166	8.266	8.266	0.000	95	1189606	80.0	72.0	
98 4-Nitroaniline	138	8.266	8.272	-0.006	87	260395	80.0	76.4	
99 4,6-Dinitro-2-methylphenol	198	8.301	8.301	0.000	87	311424	160.0	142.0	
100 N-Nitrosodiphenylamine	169	8.366	8.366	0.000	62	1616688	160.0	142.4	
102 1,2-Diphenylhydrazine	77	8.407	8.413	-0.006	99	1127363	80.9	75.2	
103 Azobenzene	77	8.407	8.413	-0.006	99	1127363	80.0	74.4	
109 4-Bromophenyl phenyl ether	248	8.742	8.748	-0.006	67	321536	80.0	72.8	
112 Hexachlorobenzene	284	8.836	8.836	0.000	93	308771	80.0	72.9	
114 Pentachlorophenol	266	9.024	9.024	0.000	92	365976	160.0	141.0	
119 Phenanthrene	178	9.241	9.241	0.000	97	1675581	80.0	73.4	
120 Anthracene	178	9.288	9.294	-0.006	97	1660664	80.0	71.6	
121 Carbazole	167	9.441	9.441	0.000	95	1539617	80.0	73.7	
123 Di-n-butyl phthalate	149	9.788	9.788	0.000	100	1649785	80.0	74.3	
128 Fluoranthene	202	10.652	10.651	0.001	97	1767564	80.0	73.4	
129 Pyrene	202	10.998	10.998	0.000	98	1844818	80.0	76.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149	12.144	12.150	-0.006	97	683530	80.0	72.8	
139 3,3'-Dichlorobenzidine	252	13.343	13.348	-0.005	73	298279	80.0	47.9	
140 Benzo[a]anthracene	228	13.390	13.395	-0.005	98	1605371	80.0	74.3	
141 Chrysene	228	13.484	13.483	0.001	97	1564626	80.0	75.8	
142 Bis(2-ethylhexyl) phthalat	149	13.560	13.560	0.000	97	880062	80.0	70.7	
143 Di-n-octyl phthalate	149	15.411	15.411	0.000	99	1417033	80.0	67.8	
145 Benzo[b]fluoranthene	252	16.333	16.339	-0.006	97	1387864	80.0	73.0	
146 Benzo[k]fluoranthene	252	16.415	16.415	0.000	99	1525970	80.0	79.7	
147 Benzo[a]pyrene	252	17.279	17.285	-0.006	80	1325066	80.0	71.5	
150 Indeno[1,2,3-cd]pyrene	276	20.617	20.628	-0.012	99	1096234	80.0	67.6	
151 Dibenz(a,h)anthracene	278	20.711	20.716	-0.005	93	1166498	80.0	72.9	
152 Benzo[g,h,i]perylene	276	21.369	21.374	-0.005	97	1226977	80.0	73.0	
153 Benzidine	184		10.428				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141352.D

Injection Date: 16-Nov-2015 18:15:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: LCS 280-304110/2-A

Worklist Smp#: 10

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

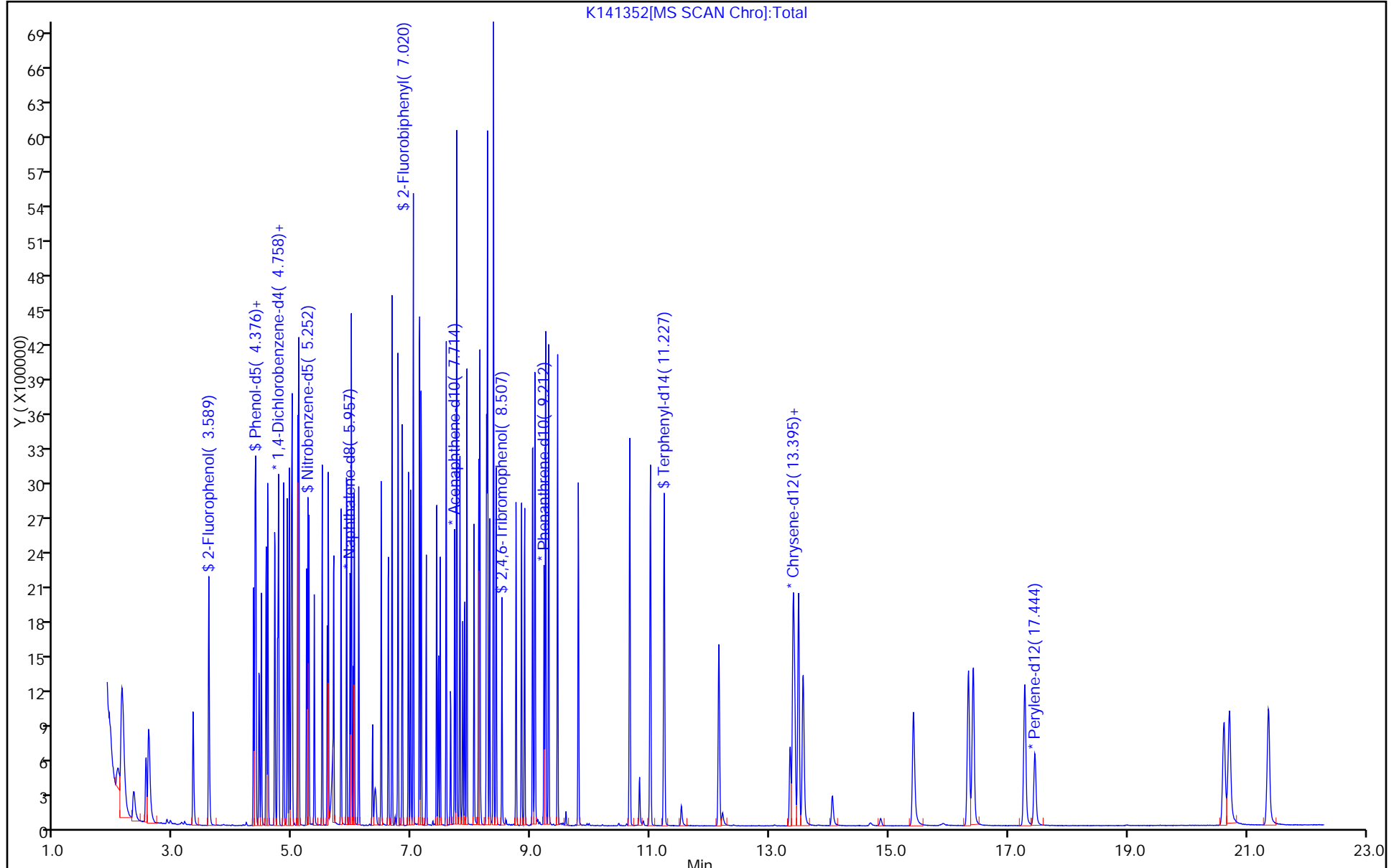
ALS Bottle#: 7

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



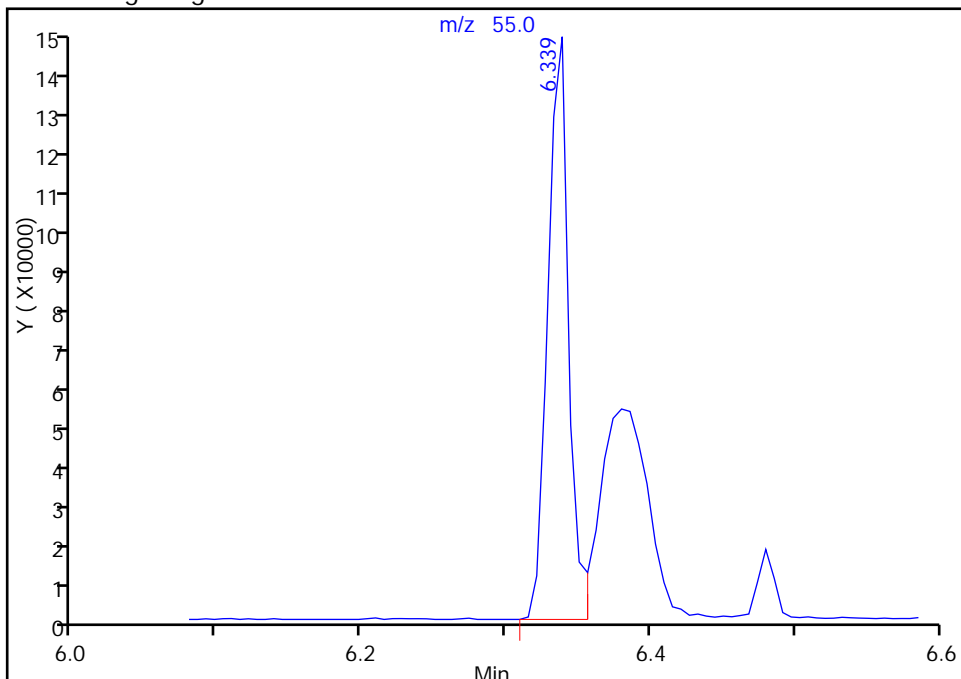
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141352.D
Injection Date: 16-Nov-2015 18:15:30 Instrument ID: SMS_K
Lims ID: LCS 280-304110/2-A
Client ID:
Operator ID: HOEFLERA ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

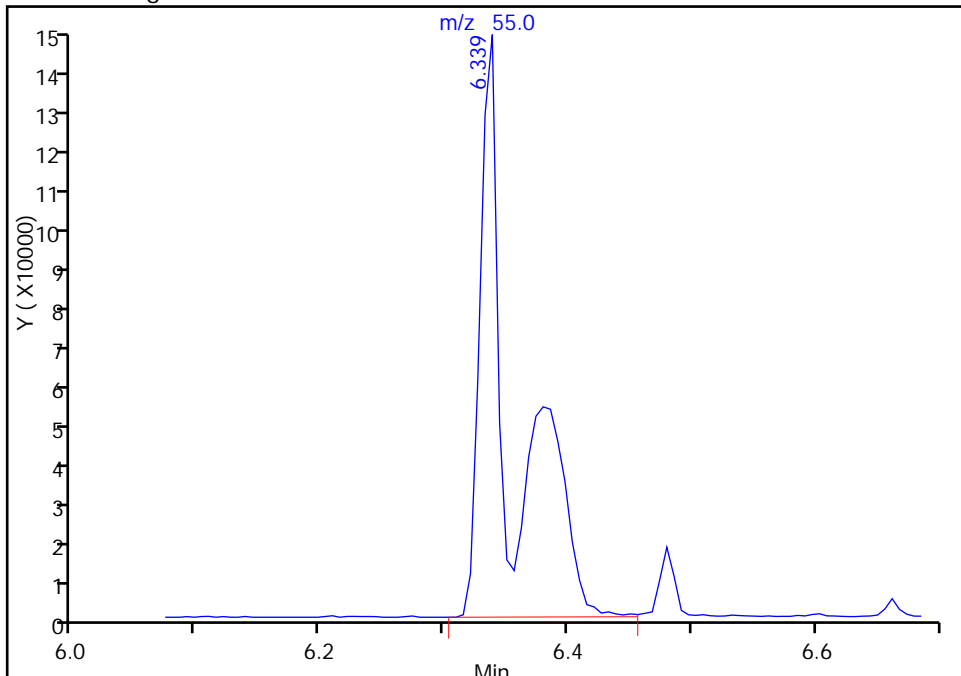
RT: 6.34
Area: 148406
Amount: 40.355347
Amount Units: ug/ml

Processing Integration Results



RT: 6.34
Area: 266831
Amount: 72.558101
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 17-Nov-2015 12:48:50
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: MW23102015MS MS Lab Sample ID: 280-76532-4 MS
 Matrix: Water Lab File ID: K141360.D
 Analysis Method: 8270D Date Collected: 11/06/2015 08:35
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 967.5 (mL) Date Analyzed: 11/16/2015 21:59
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 0.5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	77.6		5.2	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	96		42-131
321-60-8	2-Fluorobiphenyl	92		48-120
367-12-4	2-Fluorophenol (Surr)	96		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	103		42-120
4165-62-2	Phenol-d5 (Surr)	97		45-124
1718-51-0	Terphenyl-d14 (Surr)	61		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141360.D
 Lims ID: 280-76532-F-4-A MS
 Client ID: MW23102015MS
 Sample Type: MS
 Inject. Date: 16-Nov-2015 21:59:30 ALS Bottle#: 15 Worklist Smp#: 18
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-F-4-AMS
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 13:25:43

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	96	252930	40.0	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	100	932911	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	529066	40.0	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	98	848228	40.0	40.0	
* 5 Chrysene-d12	240	13.413	13.419	-0.006	98	741649	40.0	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	648803	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	94	818544	100.0	95.7	
\$ 8 Phenol-d5	99	4.371	4.365	0.006	99	1023582	100.0	96.5	
\$ 9 Nitrobenzene-d5	82	5.252	5.252	0.000	92	915327	100.0	102.6	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1600978	100.0	91.8	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	92	169905	100.0	96.0	
\$ 12 Terphenyl-d14	244	11.227	11.227	0.000	99	1031059	100.0	60.5	
13 1,4-Dioxane	88	2.326	2.337	-0.011	98	263322	80.0	69.6	
14 N-Nitrosodimethylamine	74	2.531	2.537	-0.006	90	461950	80.0	79.2	
15 Pyridine	79	2.578	2.584	-0.006	90	651606	80.0	64.0	
16 2-Picoline	93		2.678					ND	
17 N-Nitrosomethylethylamine	88		2.755					ND	
18 Methyl methanesulfonate	80		3.013					ND	
19 N-Nitrosodiethylamine	102		3.377					ND	
20 Pentachlorophenol_T	266		3.872					ND	
21 Ethyl methanesulfonate	79		3.636					ND	
22 Phenol	94	4.382	4.376	0.006	98	846658	80.0	79.3	
23 Aniline	93	4.435	4.435	0.000	98	900512	80.0	67.3	
24 Bis(2-chloroethyl)ether	93	4.470	4.470	0.000	95	720183	80.0	84.8	
25 Pentachloroethane	117		4.118					ND	
26 2-Chlorophenol	128	4.553	4.553	0.000	97	693106	80.0	79.6	
27 1,3-Dichlorobenzene	146	4.694	4.699	-0.005	99	730719	80.0	72.9	
28 1,4-Dichlorobenzene	146	4.758	4.758	0.000	95	740556	80.0	73.6	
29 Benzyl alcohol	108	4.846	4.846	0.000	92	459784	80.0	80.6	
30 2-Methylphenol	108	4.940	4.940	0.000	96	612443	80.0	77.7	
31 1,2-Dichlorobenzene	146	4.905	4.905	0.000	98	715225	80.0	74.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45	4.976	4.976	0.000	93	1062250	80.0	79.0	
33 Benzidine_T	184		4.959					ND	
34 N-Nitrosopyrrolidine	100		4.711					ND	
35 3-Methylphenol	108	5.081	5.081	0.000	92	632108	80.0	78.7	
36 3 & 4 Methylphenol	108	5.081	5.081	0.000	98	632108	80.0	78.7	
37 4-Methylphenol	108	5.081	5.081	0.000	96	632108	80.0	78.7	
38 N-Nitrosomorpholine	116		4.746					ND	
39 N-Nitrosodi-n-propylamine	70	5.093	5.093	0.000	93	466651	80.0	80.4	
40 Acetophenone	105	5.099	5.105	-0.006	96	850756	80.0	78.7	
41 2-Toluidine	106		4.782					ND	
42 Benzaldehyde	106		4.071				ND	ND	
43 Hexachloroethane	117	5.228	5.234	-0.006	91	256940	80.0	71.1	
44 Nitrobenzene	77	5.270	5.269	0.001	91	934391	80.0	112.5	
45 N-Nitrosopiperidine	114		5.046					ND	
46 Isophorone	82	5.493	5.493	0.000	99	1189105	80.0	76.8	
47 2-Nitrophenol	139	5.575	5.581	-0.006	95	348946	80.0	91.9	
48 2,4-Dimethylphenol	107	5.593	5.593	0.000	95	529664	80.0	65.9	
49 o,o',o"-Triethylphosphoro	198		5.322					ND	
50 Bis(2-chloroethoxy)methane	93	5.687	5.687	0.000	99	772379	80.0	81.6	
51 Benzoic acid	105	5.675	5.704	-0.029	90	432269	80.0	87.8	
52 alpha,alpha-Dimethyl phene	58		5.487					ND	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	93	550578	80.0	77.4	
54 1,2,4-Trichlorobenzene	180	5.898	5.904	-0.006	94	614622	80.0	73.8	
55 Naphthalene	128	5.980	5.980	0.000	98	1775003	80.0	76.5	
56 4-Chloroaniline	127	6.016	6.016	0.000	96	650181	80.0	63.2	
57 2,6-Dichlorophenol	162	6.027	6.033	-0.006	97	537671	80.0	76.6	
58 Hexachloropropene	213		5.716					ND	
59 Hexachlorobutadiene	225	6.104	6.104	0.000	95	321404	80.0	70.0	
60 Caprolactam	55	6.339	6.345	-0.006	76	277069	80.0	75.1	M
61 N-Nitrosodi-n-butylamine	84		5.997					ND	
62 p-Phenylene diamine	108		5.998					ND	
63 4-Chloro-3-methylphenol	107	6.480	6.480	0.000	95	502444	80.0	77.6	
64 Safrole, Total	162		6.209					ND	
65 2-Methylnaphthalene	142	6.662	6.662	0.000	94	1271066	80.0	76.0	
66 1-Methylnaphthalene	142	6.762	6.768	-0.006	95	1157346	80.0	78.4	
67 Hexachlorocyclopentadiene	237	6.832	6.832	0.000	94	74070	80.0	14.7	
68 1,2,4,5-Tetrachlorobenzene	216	6.832	6.838	-0.006	97	599223	80.0	76.3	
69 Isosafrole Peak 1	162		6.497					ND	
70 2-Chloronaphthalene	162	7.150	7.155	-0.005	96	1133273	80.0	76.3	
71 2,4,6-Trichlorophenol	196	6.938	6.938	0.000	91	390725	80.0	81.3	
72 2,4,5-Trichlorophenol	196	6.973	6.973	0.000	94	414485	80.0	79.1	
73 Isosafrole Peak 2	104		6.721					ND	
74 1,1'-Biphenyl	154	7.126	7.126	0.000	94	1532164	80.0	79.1	
75 1-Chloronaphthalene	162		6.809					ND	
76 2-Nitroaniline	65	7.238	7.238	0.000	86	270050	80.0	73.1	
77 1,4-Naphthoquinone	158		6.944					ND	
78 1,4-Dinitrobenzene	168		6.997					ND	
79 Dimethyl phthalate	163	7.414	7.414	0.000	100	1176249	80.0	79.7	
80 2,6-Dinitrotoluene	165	7.473	7.473	0.000	96	294363	80.0	90.7	
81 1,3-Dinitrobenzene	168	7.443	7.443	0.000	91	192542	80.0	91.8	
82 Acenaphthylene	152	7.573	7.573	0.000	98	1674544	80.0	73.0	
83 3-Nitroaniline	138	7.649	7.649	0.000	96	139723	80.0	39.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Acenaphthene	153	7.749	7.749	0.000	92	1099418	80.0	75.8	
85 2,4-Dinitrophenol	184	7.755	7.755	0.000	82	256132	160.0	188.0	
86 4-Nitrophenol	109	7.808	7.808	0.000	93	319759	160.0	191.9	
87 Pentachlorobenzene	250		7.514					ND	
88 2,4-Dinitrotoluene	165	7.884	7.884	0.000	95	364897	80.0	87.5	
89 Dibenzofuran	168	7.919	7.919	0.000	98	1589743	80.0	76.7	
90 1-Naphthylamine	143		7.766					ND	
91 2,3,4,6-Tetrachlorophenol	232	8.037	8.037	0.000	72	315006	80.0	81.5	
92 2-Naphthylamine	143		7.766					ND	
93 Diethyl phthalate	149	8.119	8.119	0.000	99	1114957	80.0	79.4	
94 Thionazin	97		7.837					ND	
95 4-Chlorophenyl phenyl ethe	204	8.248	8.248	0.000	89	611487	80.0	75.1	
96 N-Nitro-o-toluidine	152		7.884					ND	
97 Fluorene	166	8.266	8.266	0.000	94	1264975	80.0	76.8	
98 4-Nitroaniline	138	8.266	8.272	-0.006	45	83306	80.0	24.5	
99 4,6-Dinitro-2-methylphenol	198	8.301	8.301	0.000	89	378361	160.0	166.2	
100 N-Nitrosodiphenylamine	169	8.366	8.366	0.000	62	1646394	160.0	141.7	
101 Diphenylamine	169		7.990					ND	
102 1,2-Diphenylhydrazine	77	8.407	8.413	-0.006	99	1196023	80.9	80.0	
103 Azobenzene	77	8.407	8.413	-0.006	99	1196023	80.0	79.1	
104 Sulfotepp	97		8.148					ND	
105 1,3,5-Trinitrobenzene	213		8.236					ND	
106 Diallate Peak 1	86		8.283					ND	
107 Phenacetin	108		8.295					ND	
108 Phorate	121		8.289					ND	
109 4-Bromophenyl phenyl ether	248	8.742	8.748	-0.006	66	328378	80.0	72.7	
110 Diallate Peak 2	86		8.372					ND	
111 Dimethoate	87		8.448					ND	
112 Hexachlorobenzene	284	8.836	8.836	0.000	93	300562	80.0	69.4	
113 4-Aminobiphenyl	169		8.624					ND	
114 Pentachlorophenol	266	9.024	9.024	0.000	92	429714	160.0	161.3	
115 Pentachloronitrobenzene	237		8.654					ND	
116 Pronamide	173		8.689					ND	
117 Disulfoton	88		8.812					ND	
118 Dinoseb	211		8.818					ND	
119 Phenanthrene	178	9.241	9.241	0.000	97	1747828	80.0	74.8	
120 Anthracene	178	9.288	9.294	-0.006	97	1663898	80.0	70.1	
121 Carbazole	167	9.441	9.441	0.000	95	1666386	80.0	78.0	
122 Methyl parathion	109		9.182					ND	
123 Di-n-butyl phthalate	149	9.788	9.788	0.000	100	1677312	80.0	73.8	
124 Ethyl Parathion	109		9.582					ND	
125 4-Nitroquinoline-1-oxide	190		9.611					ND	
126 Methapyrilene	97		9.435					ND	
127 Isodrin	193		9.940					ND	
128 Fluoranthene	202	10.652	10.651	0.001	97	1796917	80.0	72.9	
129 Pyrene	202	10.992	10.998	-0.006	97	1868919	80.0	71.9	
130 Aramite Peak 1	185		10.604					ND	
131 Aramite Peak 2	185		10.722					ND	
132 p-Dimethylamino azobenzene	120		10.851					ND	
133 Chlorobenzilate	251		10.933					ND	
134 Famphur	218		12.020					ND	
135 3,3'-Dimethylbenzidine	212		11.415					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149	12.144	12.150	-0.006	98	697454	80.0	69.4	
137 2-Acetylaminofluorene	181		11.897					ND	
138 4,4'-Methylene bis(2-chlor	231		12.520					ND	
139 3,3'-Dichlorobenzidine	252	13.343	13.348	-0.005	56	18147	80.0	2.72	
140 Benzo[a]anthracene	228	13.390	13.395	-0.005	99	1539705	80.0	66.6	
141 Chrysene	228	13.478	13.483	-0.005	97	1504518	80.0	68.1	
142 Bis(2-ethylhexyl) phthalat	149	13.554	13.560	-0.006	97	902256	80.0	67.7	
143 Di-n-octyl phthalate	149	15.405	15.411	-0.006	99	1480336	80.0	66.1	
144 7,12-Dimethylbenz(a)antra	256		15.234					ND	
145 Benzo[b]fluoranthene	252	16.327	16.339	-0.012	97	1377933	80.0	68.9	
146 Benzo[k]fluoranthene	252	16.410	16.415	-0.005	99	1432981	80.0	71.1	
147 Benzo[a]pyrene	252	17.273	17.285	-0.012	77	1231433	80.0	63.1	
148 3-Methylcholanthrene	268		17.156					ND	
149 Dibenz[a,j]acridine	279		18.830					ND	
150 Indeno[1,2,3-cd]pyrene	276	20.617	20.628	-0.012	99	1074874	80.0	61.9	
151 Dibenz(a,h)anthracene	278	20.705	20.716	-0.011	93	1138168	80.0	67.5	
152 Benzo[g,h,i]perylene	276	21.363	21.374	-0.011	97	1174993	80.0	66.4	
153 Benzidine	184		10.428				ND	ND	
S 160 Aramite, Total	185		15.047					ND	
S 161 Diallate	86		15.047					ND	
S 162 Isosafrole	162		15.047					ND	
154 Hexachlorophene	196		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDE	246		5.094					ND	
158 4,4'-DDD	235		5.394					ND	
159 4,4'-DDT	235		5.623					ND	
S 163 Total Cresols	1		0.000					ND	
S 164 Methyl Phenols, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141360.D

Injection Date: 16-Nov-2015 21:59:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-F-4-A MS

Worklist Smp#: 18

Client ID: MW23102015MS

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

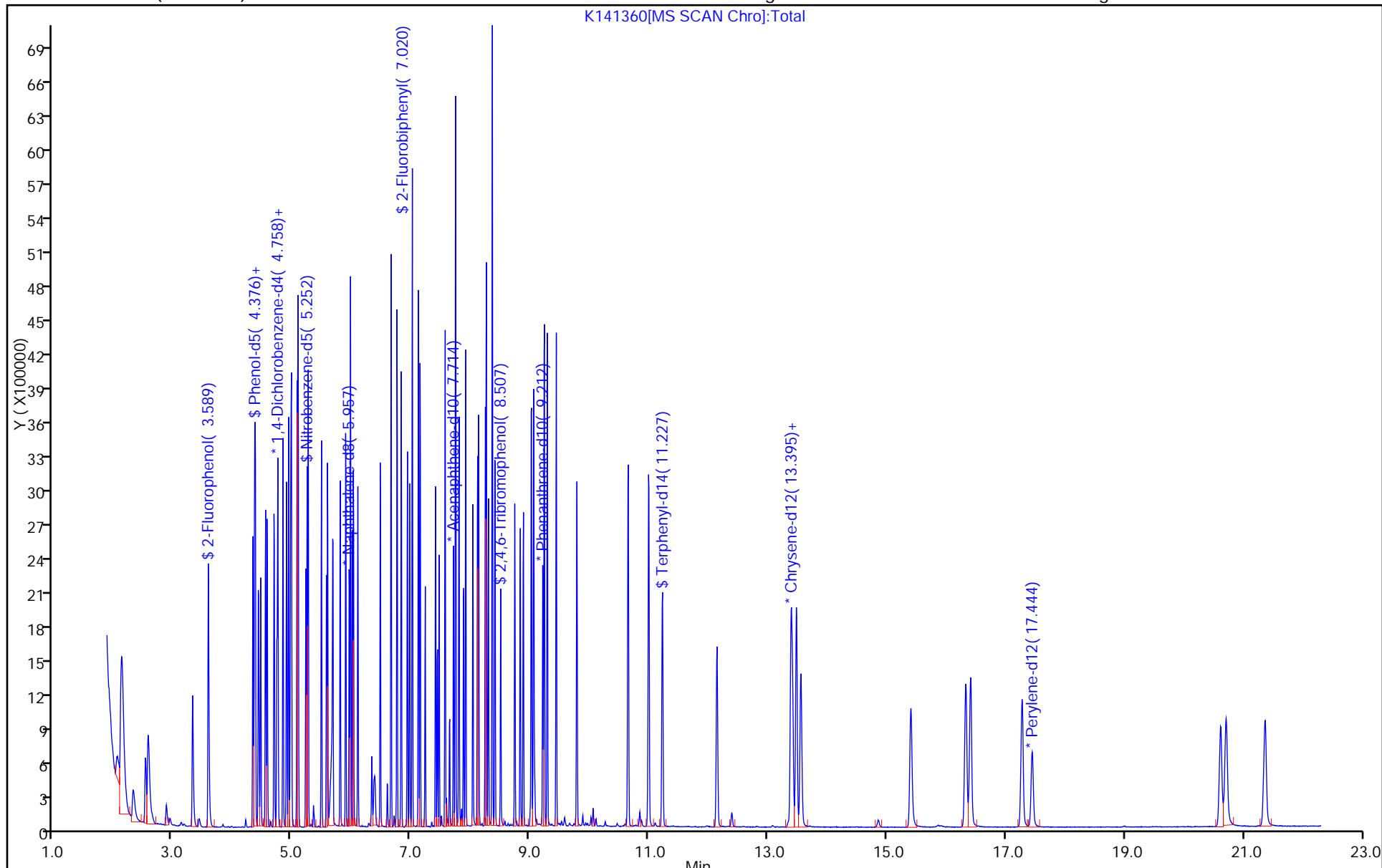
ALS Bottle#: 15

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



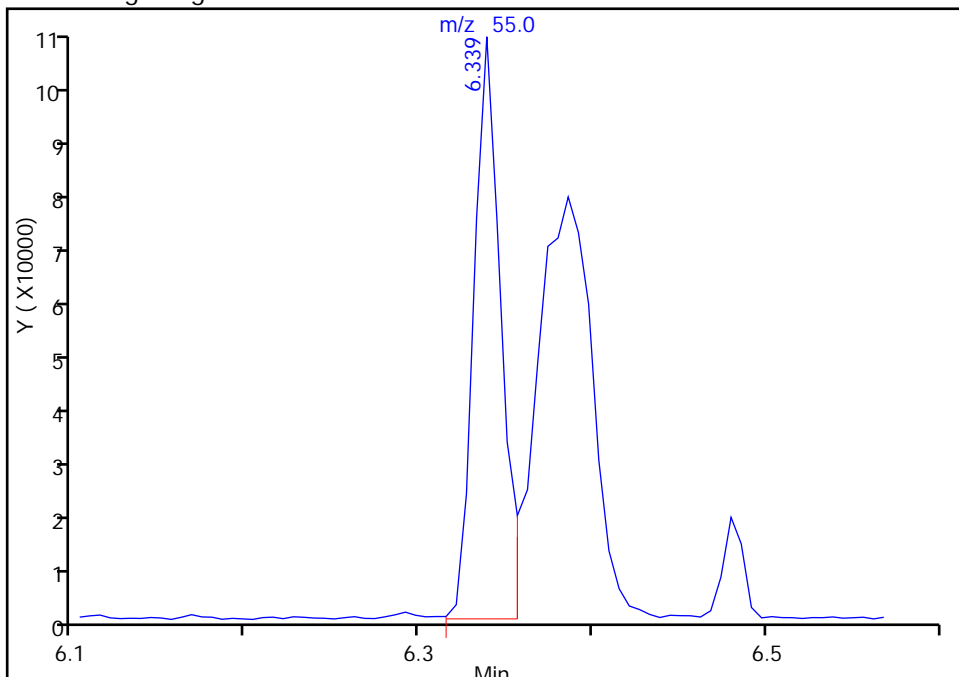
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141360.D
Injection Date: 16-Nov-2015 21:59:30 Instrument ID: SMS_K
Lims ID: 280-76532-F-4-A MS
Client ID: MW23102015MS
Operator ID: HOEFLERA ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

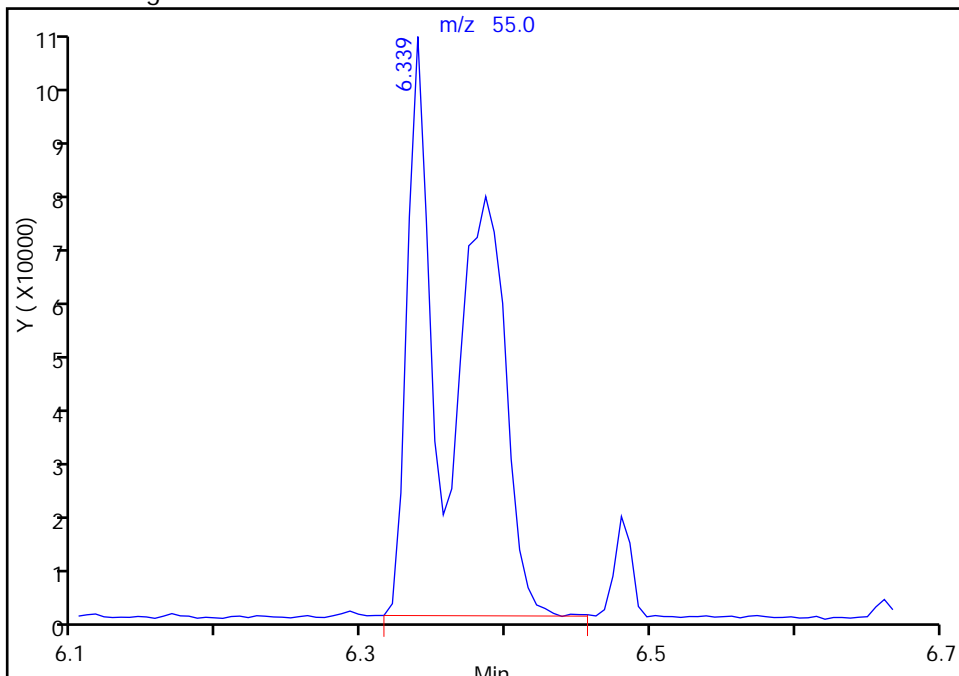
RT: 6.34
Area: 115960
Amount: 31.436061
Amount Units: ug/ml

Processing Integration Results



RT: 6.34
Area: 277069
Amount: 75.111744
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 17-Nov-2015 13:25:43
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2
 SDG No.: _____
 Client Sample ID: MW23102015MSD MSD Lab Sample ID: 280-76532-4 MSD
 Matrix: Water Lab File ID: K141361.D
 Analysis Method: 8270D Date Collected: 11/06/2015 08:35
 Extract. Method: 3520C Date Extracted: 11/10/2015 15:05
 Sample wt/vol: 978.3(mL) Date Analyzed: 11/16/2015 22:27
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 0.5(uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 304326 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	79.2		5.1	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	97		42-131
321-60-8	2-Fluorobiphenyl	88		48-120
367-12-4	2-Fluorophenol (Surr)	91		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	99		42-120
4165-62-2	Phenol-d5 (Surr)	93		45-124
1718-51-0	Terphenyl-d14 (Surr)	57		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141361.D
 Lims ID: 280-76532-I-4-A MSD
 Client ID: MW23102015MSD
 Sample Type: MSD
 Inject. Date: 16-Nov-2015 22:27:30 ALS Bottle#: 16 Worklist Smp#: 19
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 280-76532-I-4-AMSD
 Operator ID: HOEFLERA Instrument ID: SMS_K
 Method: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\SMS_K_8270D.m
 Limit Group: MSSV - 8270D
 Method Label: 8270D
 Last Update: 17-Nov-2015 13:46:53 Calib Date: 12-Nov-2015 15:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\SMS_K\20151114-41495.b\K141250.D
 Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: hoeflera

Date: 17-Nov-2015 13:30:28

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.741	4.741	0.000	95	228349	40.0	40.0	
* 2 Naphthalene-d8	136	5.957	5.963	-0.006	99	852941	40.0	40.0	
* 3 Acenaphthene-d10	164	7.714	7.714	0.000	90	502711	40.0	40.0	
* 4 Phenanthrene-d10	188	9.212	9.218	-0.006	97	815636	40.0	40.0	
* 5 Chrysene-d12	240	13.413	13.419	-0.006	98	722732	40.0	40.0	
* 6 Perylene-d12	264	17.444	17.449	-0.005	98	626394	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.589	3.583	0.006	93	702803	100.0	91.0	
\$ 8 Phenol-d5	99	4.365	4.365	0.000	98	888391	100.0	92.8	
\$ 9 Nitrobenzene-d5	82	5.252	5.252	0.000	91	809802	100.0	99.3	
\$ 10 2-Fluorobiphenyl	172	7.020	7.020	0.000	100	1450667	100.0	87.5	
\$ 11 2,4,6-Tribromophenol	330	8.507	8.507	0.000	92	162816	100.0	96.9	
\$ 12 Terphenyl-d14	244	11.221	11.227	-0.006	99	954468	100.0	57.5	
13 1,4-Dioxane	88	2.332	2.337	-0.005	98	232088	80.0	68.0	
14 N-Nitrosodimethylamine	74	2.537	2.537	0.000	90	398361	80.0	75.7	
15 Pyridine	79	2.584	2.584	0.000	89	596597	80.0	64.9	
16 2-Picoline	93		2.678					ND	
17 N-Nitrosomethylethylamine	88		2.755					ND	
18 Methyl methanesulfonate	80		3.013					ND	
19 N-Nitrosodiethylamine	102		3.377					ND	
20 Pentachlorophenol_T	266		3.872					ND	
21 Ethyl methanesulfonate	79		3.636					ND	
22 Phenol	94	4.382	4.376	0.006	99	739361	80.0	76.7	
23 Aniline	93	4.435	4.435	0.000	97	422329	80.0	34.9	
24 Bis(2-chloroethyl)ether	93	4.470	4.470	0.000	96	605983	80.0	79.0	
25 Pentachloroethane	117		4.118					ND	
26 2-Chlorophenol	128	4.553	4.553	0.000	97	603425	80.0	76.8	
27 1,3-Dichlorobenzene	146	4.694	4.699	-0.005	99	643557	80.0	71.1	
28 1,4-Dichlorobenzene	146	4.758	4.758	0.000	95	656205	80.0	72.2	
29 Benzyl alcohol	108	4.846	4.846	0.000	93	399265	80.0	77.5	
30 2-Methylphenol	108	4.940	4.940	0.000	96	526590	80.0	74.0	
31 1,2-Dichlorobenzene	146	4.905	4.905	0.000	98	627884	80.0	72.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45	4.976	4.976	0.000	93	927666	80.0	76.4	
33 Benzidine_T	184		4.959					ND	
34 N-Nitrosopyrrolidine	100		4.711					ND	
35 3-Methylphenol	108	5.081	5.081	0.000	90	549002	80.0	75.7	
36 3 & 4 Methylphenol	108	5.081	5.081	0.000	98	549002	80.0	75.7	
37 4-Methylphenol	108	5.081	5.081	0.000	93	549002	80.0	75.7	
38 N-Nitrosomorpholine	116		4.746					ND	
39 N-Nitrosodi-n-propylamine	70	5.093	5.093	0.000	94	407550	80.0	77.8	
40 Acetophenone	105	5.099	5.105	-0.006	96	762281	80.0	78.1	
41 2-Toluidine	106		4.782					ND	
42 Benzaldehyde	106		4.071				ND	ND	
43 Hexachloroethane	117	5.228	5.234	-0.006	91	227940	80.0	69.9	
44 Nitrobenzene	77	5.269	5.269	0.000	91	802915	80.0	105.7	
45 N-Nitrosopiperidine	114		5.046					ND	
46 Isophorone	82	5.493	5.493	0.000	98	1049928	80.0	74.2	
47 2-Nitrophenol	139	5.575	5.581	-0.006	95	305205	80.0	87.9	
48 2,4-Dimethylphenol	107	5.593	5.593	0.000	95	468444	80.0	63.7	
49 o,o',o"-Triethylphosphoro	198		5.322					ND	
50 Bis(2-chloroethoxy)methane	93	5.681	5.687	-0.006	98	677477	80.0	78.3	
51 Benzoic acid	105	5.669	5.704	-0.035	90	380980	80.0	85.0	
52 alpha,alpha-Dimethyl phene	58		5.487					ND	
53 2,4-Dichlorophenol	162	5.810	5.810	0.000	93	485871	80.0	74.7	
54 1,2,4-Trichlorobenzene	180	5.898	5.904	-0.006	94	546350	80.0	71.8	
55 Naphthalene	128	5.980	5.980	0.000	98	1596745	80.0	75.3	
56 4-Chloroaniline	127	6.016	6.016	0.000	96	272175	80.0	28.9	
57 2,6-Dichlorophenol	162	6.027	6.033	-0.006	98	478660	80.0	74.6	
58 Hexachloropropene	213		5.716					ND	
59 Hexachlorobutadiene	225	6.104	6.104	0.000	95	287465	80.0	68.5	
60 Caprolactam	55	6.339	6.345	-0.006	76	261260	80.0	77.5	M
61 N-Nitrosodi-n-butylamine	84		5.997					ND	
62 p-Phenylene diamine	108		5.998					ND	
63 4-Chloro-3-methylphenol	107	6.480	6.480	0.000	95	451080	80.0	76.2	
64 Safrole, Total	162		6.209					ND	
65 2-Methylnaphthalene	142	6.662	6.662	0.000	94	1152294	80.0	75.3	
66 1-Methylnaphthalene	142	6.762	6.768	-0.006	95	1046622	80.0	77.5	
67 Hexachlorocyclopentadiene	237	6.832	6.832	0.000	96	60917	80.0	12.7	
68 1,2,4,5-Tetrachlorobenzene	216	6.832	6.838	-0.006	97	540850	80.0	75.3	
69 Isosafrole Peak 1	162		6.497					ND	
70 2-Chloronaphthalene	162	7.150	7.155	-0.005	95	1033380	80.0	73.3	
71 2,4,6-Trichlorophenol	196	6.938	6.938	0.000	91	359083	80.0	78.7	
72 2,4,5-Trichlorophenol	196	6.973	6.973	0.000	94	378889	80.0	76.1	
73 Isosafrole Peak 2	104		6.721					ND	
74 1,1'-Biphenyl	154	7.120	7.126	-0.006	95	1394537	80.0	75.7	
75 1-Chloronaphthalene	162		6.809					ND	
76 2-Nitroaniline	65	7.238	7.238	0.000	86	247658	80.0	70.6	
77 1,4-Naphthoquinone	158		6.944					ND	
78 1,4-Dinitrobenzene	168		6.997					ND	
79 Dimethyl phthalate	163	7.408	7.414	-0.006	99	1078539	80.0	76.9	
80 2,6-Dinitrotoluene	165	7.473	7.473	0.000	96	271050	80.0	87.9	
81 1,3-Dinitrobenzene	168	7.443	7.443	0.000	90	178732	80.0	89.9	
82 Acenaphthylene	152	7.573	7.573	0.000	98	1534709	80.0	70.4	
83 3-Nitroaniline	138	7.643	7.649	-0.006	95	86574	80.0	25.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Acenaphthene	153	7.749	7.749	0.000	92	1014395	80.0	73.6	
85 2,4-Dinitrophenol	184	7.749	7.755	-0.006	81	243977	160.0	188.4	
86 4-Nitrophenol	109	7.808	7.808	0.000	91	295967	160.0	186.9	
87 Pentachlorobenzene	250		7.514					ND	
88 2,4-Dinitrotoluene	165	7.884	7.884	0.000	95	347930	80.0	87.8	
89 Dibenzofuran	168	7.919	7.919	0.000	97	1449132	80.0	73.6	
90 1-Naphthylamine	143		7.766					ND	
91 2,3,4,6-Tetrachlorophenol	232	8.037	8.037	0.000	72	296807	80.0	80.8	
92 2-Naphthylamine	143		7.766					ND	
93 Diethyl phthalate	149	8.119	8.119	0.000	99	1043734	80.0	78.3	
94 Thionazin	97		7.837					ND	
95 4-Chlorophenyl phenyl ethe	204	8.248	8.248	0.000	90	558515	80.0	72.2	
96 N-Nitro-o-toluidine	152		7.884					ND	
97 Fluorene	166	8.266	8.266	0.000	94	1177611	80.0	75.2	
98 4-Nitroaniline	138	8.260	8.272	-0.012	46	78538	80.0	24.3	
99 4,6-Dinitro-2-methylphenol	198	8.301	8.301	0.000	91	363610	160.0	166.1	
100 N-Nitrosodiphenylamine	169	8.366	8.366	0.000	62	1536580	160.0	137.5	
101 Diphenylamine	169		7.990					ND	
102 1,2-Diphenylhydrazine	77	8.407	8.413	-0.006	99	1104084	80.9	77.7	
103 Azobenzene	77	8.407	8.413	-0.006	99	1104084	80.0	76.9	
104 Sulfotepp	97		8.148					ND	
105 1,3,5-Trinitrobenzene	213		8.236					ND	
106 Diallate Peak 1	86		8.283					ND	
107 Phenacetin	108		8.295					ND	
108 Phorate	121		8.289					ND	
109 4-Bromophenyl phenyl ether	248	8.742	8.748	-0.006	66	305777	80.0	70.4	
110 Diallate Peak 2	86		8.372					ND	
111 Dimethoate	87		8.448					ND	
112 Hexachlorobenzene	284	8.836	8.836	0.000	94	271234	80.0	65.1	
113 4-Aminobiphenyl	169		8.624					ND	
114 Pentachlorophenol	266	9.024	9.024	0.000	92	401091	160.0	156.7	
115 Pentachloronitrobenzene	237		8.654					ND	
116 Pronamide	173		8.689					ND	
117 Disulfoton	88		8.812					ND	
118 Dinoseb	211		8.818					ND	
119 Phenanthrene	178	9.235	9.241	-0.006	97	1640355	80.0	73.0	
120 Anthracene	178	9.288	9.294	-0.006	97	1517674	80.0	66.5	
121 Carbazole	167	9.441	9.441	0.000	95	1534326	80.0	74.7	
122 Methyl parathion	109		9.182					ND	
123 Di-n-butyl phthalate	149	9.788	9.788	0.000	99	1532415	80.0	70.1	
124 Ethyl Parathion	109		9.582					ND	
125 4-Nitroquinoline-1-oxide	190		9.611					ND	
126 Methapyrilene	97		9.435					ND	
127 Isodrin	193		9.940					ND	
128 Fluoranthene	202	10.646	10.651	-0.005	98	1627209	80.0	68.7	
129 Pyrene	202	10.992	10.998	-0.006	98	1701778	80.0	67.2	
130 Aramite Peak 1	185		10.604					ND	
131 Aramite Peak 2	185		10.722					ND	
132 p-Dimethylamino azobenzene	120		10.851					ND	
133 Chlorobenzilate	251		10.933					ND	
134 Famphur	218		12.020					ND	
135 3,3'-Dimethylbenzidine	212		11.415					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Butyl benzyl phthalate	149	12.144	12.150	-0.006	97	631285	80.0	64.5	
137 2-Acetylaminofluorene	181		11.897					ND	
138 4,4'-Methylene bis(2-chlor	231		12.520					ND	
139 3,3'-Dichlorobenzidine	252	13.342	13.348	-0.006	27	6861	80.0	1.06	7
140 Benzo[a]anthracene	228	13.389	13.395	-0.006	98	1382717	80.0	61.4	
141 Chrysene	228	13.478	13.483	-0.005	97	1323231	80.0	61.5	
142 Bis(2-ethylhexyl) phthalat	149	13.554	13.560	-0.006	97	804749	80.0	61.9	
143 Di-n-octyl phthalate	149	15.405	15.411	-0.006	99	1311222	80.0	60.1	
144 7,12-Dimethylbenz(a)anthra	256		15.234					ND	
145 Benzo[b]fluoranthene	252	16.327	16.339	-0.012	97	1199270	80.0	62.1	
146 Benzo[k]fluoranthene	252	16.409	16.415	-0.006	99	1278832	80.0	65.7	
147 Benzo[a]pyrene	252	17.267	17.285	-0.018	77	1076039	80.0	57.1	
148 3-Methylcholanthrene	268		17.156					ND	
149 Dibenz[a,j]acridine	279		18.830					ND	
150 Indeno[1,2,3-cd]pyrene	276	20.611	20.628	-0.017	98	926945	80.0	54.8	
151 Dibenz(a,h)anthracene	278	20.705	20.716	-0.011	94	1000613	80.0	61.5	
152 Benzo[g,h,i]perylene	276	21.357	21.374	-0.017	98	1030533	80.0	60.3	
153 Benzidine	184		10.428				ND	ND	
S 160 Aramite, Total	185		15.047					ND	
S 161 Diallate	86		15.047					ND	
S 162 Isosafrole	162		15.047					ND	
154 Hexachlorophene	196		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDE	246		5.094					ND	
158 4,4'-DDD	235		5.394					ND	
159 4,4'-DDT	235		5.623					ND	
S 163 Total Cresols	1		0.000					ND	
S 164 Methyl Phenols, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00007

Amount Added: 20.00

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141361.D

Injection Date: 16-Nov-2015 22:27:30

Instrument ID: SMS_K

Operator ID: HOEFLERA

Lims ID: 280-76532-I-4-A MSD

Worklist Smp#: 19

Client ID: MW23102015MSD

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

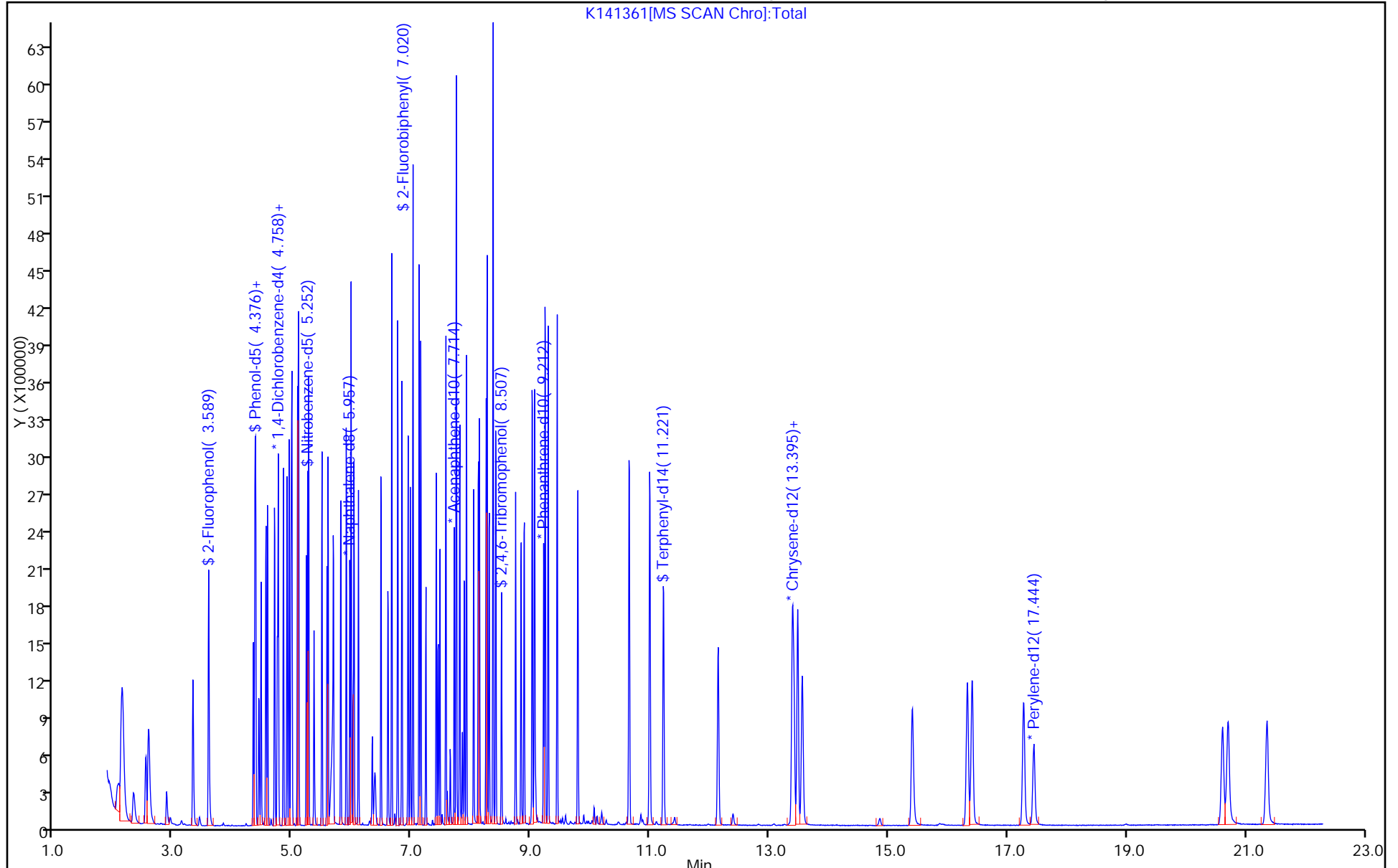
ALS Bottle#: 16

Method: SMS_K_8270D

Limit Group: MSSV - 8270D

Column: VF-5ms (0.50 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



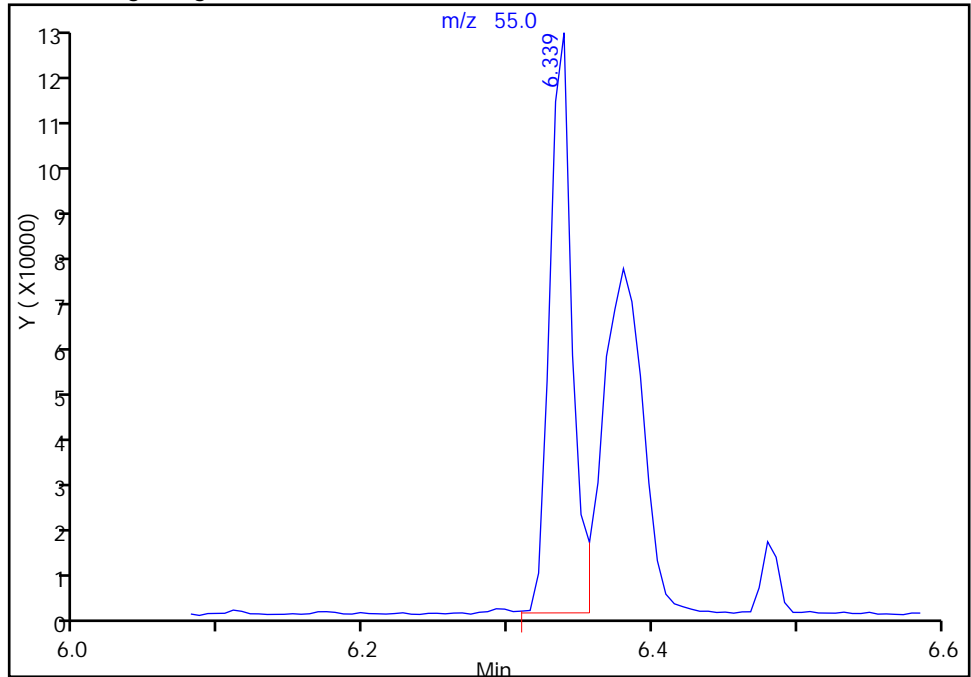
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_K\20151116-41550.b\K141361.D
Injection Date: 16-Nov-2015 22:27:30 Instrument ID: SMS_K
Lims ID: 280-76532-I-4-A MSD
Client ID: MW23102015MSD
Operator ID: HOEFLERA ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_K_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector: MS SCAN

60 Caprolactam, CAS: 105-60-2

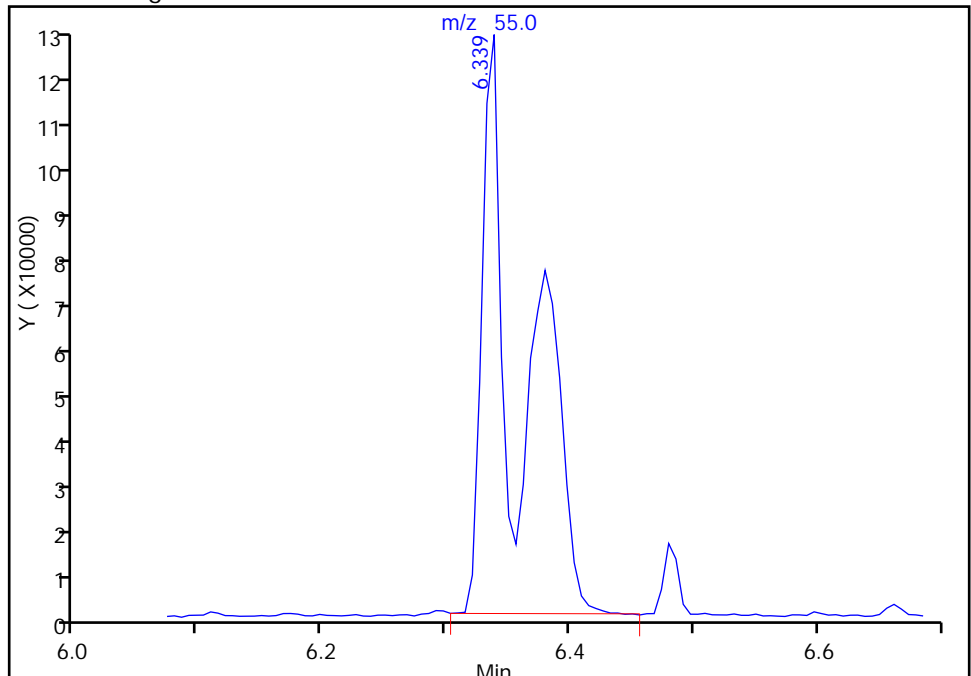
RT: 6.34
Area: 131139
Amount: 38.884185
Amount Units: ug/ml

Processing Integration Results



RT: 6.34
Area: 261260
Amount: 77.466522
Amount Units: ug/ml

Manual Integration Results



Reviewer: hoeflera, 17-Nov-2015 13:30:28
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica DenverJob No.: 280-76532-2

SDG No.: _____

Instrument ID: SMS_KStart Date: 11/12/2015 12:29Analysis Batch Number: 304153End Date: 11/12/2015 17:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-304153/2		11/12/2015 12:29	1	K141242.D	Vf-5MS (30.25) 0.25 (mm)
ICIS 280-304153/3		11/12/2015 12:40	1	K141243.D	Vf-5MS (30.25) 0.25 (mm)
STD004 280-304153/4 IC		11/12/2015 13:08	1	K141244.D	Vf-5MS (30.25) 0.25 (mm)
STD010 280-304153/5 IC		11/12/2015 13:35	1	K141245.D	Vf-5MS (30.25) 0.25 (mm)
STD020 280-304153/6 IC		11/12/2015 14:03	1	K141246.D	Vf-5MS (30.25) 0.25 (mm)
STD050 280-304153/7 IC		11/12/2015 14:31	1	K141247.D	Vf-5MS (30.25) 0.25 (mm)
STD120 280-304153/8 IC		11/12/2015 14:59	1	K141248.D	Vf-5MS (30.25) 0.25 (mm)
STD160 280-304153/9 IC		11/12/2015 15:27	1	K141249.D	Vf-5MS (30.25) 0.25 (mm)
STD200 280-304153/10 IC		11/12/2015 15:55	1	K141250.D	Vf-5MS (30.25) 0.25 (mm)
ICV 280-304153/11		11/12/2015 16:22	1	K141251.D	Vf-5MS (30.25) 0.25 (mm)
ICV 280-304153/12		11/12/2015 16:50	1	K141252.D	Vf-5MS (30.25) 0.25 (mm)
ICV 280-304153/13		11/12/2015 17:18	1	K141253.D	Vf-5MS (30.25) 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Instrument ID: SMS_K Start Date: 11/16/2015 15:27

Analysis Batch Number: 304326 End Date: 11/17/2015 02:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-304326/2		11/16/2015 15:27	1	K141345.D	Vf-5MS (30.25) 0.25 (mm)
CCV 280-304326/3		11/16/2015 16:30	1	K141348.D	Vf-5MS (30.25) 0.25 (mm)
MB 280-304110/1-A		11/16/2015 17:48	1	K141351.D	Vf-5MS (30.25) 0.25 (mm)
LCS 280-304110/2-A		11/16/2015 18:15	1	K141352.D	Vf-5MS (30.25) 0.25 (mm)
ZZZZZ		11/16/2015 18:43	1		Vf-5MS (30.25) 0.25 (mm)
ZZZZZ		11/16/2015 19:11	1		Vf-5MS (30.25) 0.25 (mm)
280-76532-3	TMW38102015	11/16/2015 21:03	1	K141358.D	Vf-5MS (30.25) 0.25 (mm)
280-76532-4	MW23102015	11/16/2015 21:31	1	K141359.D	Vf-5MS (30.25) 0.25 (mm)
280-76532-4 MS	MW23102015MS MS	11/16/2015 21:59	1	K141360.D	Vf-5MS (30.25) 0.25 (mm)
280-76532-4 MSD	MW23102015MSD MSD	11/16/2015 22:27	1	K141361.D	Vf-5MS (30.25) 0.25 (mm)
280-76532-5	DMW23102015	11/16/2015 22:54	1	K141362.D	Vf-5MS (30.25) 0.25 (mm)
280-76532-6	TMW15102015	11/16/2015 23:22	1	K141363.D	Vf-5MS (30.25) 0.25 (mm)
280-76532-7	DTW15102015	11/16/2015 23:50	1	K141364.D	Vf-5MS (30.25) 0.25 (mm)
ZZZZZ		11/17/2015 01:58	1		Vf-5MS (30.25) 0.25 (mm)
ZZZZZ		11/17/2015 02:26	1		Vf-5MS (30.25) 0.25 (mm)
ZZZZZ		11/17/2015 02:54	1		Vf-5MS (30.25) 0.25 (mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Batch Number: 304110 Batch Start Date: 11/10/15 15:05 Batch Analyst: Knaub, Gentry L

Batch Method: 3520C Batch End Date: 11/13/15 21:09

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	FirstAdjustpH	SecondAdjustpH
MB 280-304110/1		3520C, 8270D				1000 mL	1 mL	1-2	11-12
LCS 280-304110/2		3520C, 8270D				1000 mL	1 mL	1-2	11-12
280-76532-C-3	TMW38102015	3520C, 8270D	T	1473.8 g	503.9 g	969.9 mL	1 mL	1-2	11-12
280-76532-E-4	MW23102015	3520C, 8270D	T	1490.1 g	502.2 g	987.9 mL	1 mL	1-2	11-12
280-76532-F-4	MW23102015MS	3520C, 8270D	T	1470.7 g	503.2 g	967.5 mL	1 mL	1-2	11-12
280-76532-I-4	MW23102015MSD	3520C, 8270D	T	1479.3 g	501.0 g	978.3 mL	1 mL	1-2	11-12
280-76532-C-5	DMW23102015	3520C, 8270D	T	1478.1 g	505.1 g	973 mL	1 mL	1-2	11-12
280-76532-B-6	TMW15102015	3520C, 8270D	T	1515.5 g	504.0 g	1011.5 mL	1 mL	1-2	11-12
280-76532-A-7	DTW15102015	3520C, 8270D	T	1470.0 g	503.8 g	966.2 mL	1 mL	1-2	11-12

Lab Sample ID	Client Sample ID	Method Chain	Basis	8270_LCS Main 00026	8270_LCS Supp 00137	8270Surrogate 00086	AnalysisComment		
MB 280-304110/1		3520C, 8270D				1 mL	same as batch 303390		
LCS 280-304110/2		3520C, 8270D		1 mL	1 mL	1 mL	same as batch 303390		
280-76532-C-3	TMW38102015	3520C, 8270D	T			1 mL	same as batch 303390		
280-76532-E-4	MW23102015	3520C, 8270D	T			1 mL	same as batch 303390		
280-76532-F-4	MW23102015MS	3520C, 8270D	T	1 mL	1 mL	1 mL	same as batch 303390		
280-76532-I-4	MW23102015MSD	3520C, 8270D	T	1 mL	1 mL	1 mL	same as batch 303390		
280-76532-C-5	DMW23102015	3520C, 8270D	T			1 mL	same as batch 303390		
280-76532-B-6	TMW15102015	3520C, 8270D	T			1 mL	same as batch 303390		
280-76532-A-7	DTW15102015	3520C, 8270D	T			1 mL	same as batch 303390		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-76532-2

SDG No.: _____

Batch Number: 304110 Batch Start Date: 11/10/15 15:05 Batch Analyst: Knaub, Gentry LBatch Method: 3520C Batch End Date: 11/13/15 21:09

Batch Notes	
Acid used for pH adjustment	1/1 H2SO4
Acid used for pH adjust Lot #	1/1 H2SO4_00044
Balance ID	24350888
Base used for pH adjustment	10N_NaOH
Base used for pH adjust Lot #	10N_NaOH_00072
Batch Comment	DV OP 0008/0008 H2O N. elga
Person's name who did the concentration	EJ/AW trainee
Time the first extraction ended 24hr	11/11/15 0937
Time the first extraction started 24 hr	11/10/15 1520
Na2SO4 Lot Number	0000121812_00002
NaCl Lot #	147425
Oven, Bath or Block Temperature 1	A Celsius
Prep Solvent Lot #	MeCL2_CYCL_000248/00249
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	300 mL
Person's name who did the prep	GK
Person's name who witnessed reagent drop	DW
Time the second extraction ended 24hr	11/12/15 928
Time the second extraction started 24hr	11/11/15 1038
Sufficient volume for MS/MSD?	yes
Uncorrected Temperature	84 Celsius
Water Bath ID	A
Water Bath Temperature	84 Celsius

Basis	Basis Description
T	Total/NA


The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

Project Manager: John Nance Tel: 505 835 7660		Site Contact: John Nance 505 321 7260 Date: 11/6/15		COC No: FWDAOCT15-09	
Client Contact		Lab Contact: Michelle Johnston		Carrier: Federal Express	
Analysis Turnaround Time		Calendar (C) or Work Days (W) W		Job No.	
2 weeks <input type="checkbox"/>		TAT, if different from Below 15		SDG No.	
1 week <input type="checkbox"/>		1 day <input type="checkbox"/>			
2 days <input type="checkbox"/>					
1 day <input type="checkbox"/>					
Project Name: Fort Wingate		Project Name: Fort Wingate			
Site: Fort Wingate, New Mexico		Site: Fort Wingate, New Mexico			
PO #		PHONE			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Explosives 8330B	Nitrate Nitrite 9056	Perchlorate 6860	TAL Meta16010C/6020A/7470A Total	TAL Meta16010C/6020A/7470A Diss.	Organochlorine Pesticides 8081A	Volatile Organic Compounds 8260C	Semivolatile Organics 8270D	ORO 8015C C24-C36	TPH-DRO 8015C C10-C28	TPH-GRO 8015C C6-C10	TCLP VOCs 1311/8260B	EDB 8011	TCLP SVOCs 1311/8270D	Metals 6010C/6020A dissolved	TCLP Pesticides 1311/8081A	TCLP Herbicides 1311/8151A	PH 9045C	Ignitability 1010	Sample Specific Notes:
TB-16-102015	11/6/2015	08:00	Grab	GW	1	N																				Trip Blank
TB-17-102015	11/6/2015	08:05	Grab	GW	1	N																				Trip Blank
TMW38102015	11/6/2015	10:00	Grab	GW	13	Y	2	1	1	1	2	3	2													
MW23102015	11/6/2015	08:35	Grab	GW	13	Y	2	1	1	1	2	3	2													
DMW23102015	11/6/2015	08:35	Grab	GW	13	Y	2	1	1	1	2	3	2													
MW23102015MS	11/6/2015	08:35	Grab	GW	13	Y	2	1	1	1	2	3	2													
MW23102015MSD	11/6/2015	08:35	Grab	GW	13	Y	2	1	1	1	2	3	2													
TMW15102015	11/6/2015	09:05	Grab	GW	11	Y	2	1	1	1	1	1	3	2												
DTW15102015	11/6/2015	09:05	Grab	GW	11	Y	2	1	1	1	1	1	3	2												
TMW24102015	11/6/2015	11:35	Grab	GW	11	Y	2	1	1	1	1	1	3	2												
						Y																				
						Y																				
						Y																				
						Y																				
						Y																				



280-76532 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown	Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> For 60 days after invoice
--	--

33,178,812,0,4,0,1,1,4
RESTORE 07NOV15

Relinquished by: L.H.11 J. Field	Company: CH2M HILL	Date/Time: 11/6/15 16:00	Received by: [Signature]	Company: TAD	Date/Time: 8:45 7NOV15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

FedEx by Express
Expanded Billable Stamp

Use only for shipments within the U.S.
Saturday delivery available.

1 From

ORDER: 00806279

8210 LOUISIANA Blvd
Suite ABB NM 87113

Package Weight

FedEx
Priority
Overnight

Release Signature
For nonresidential deliveries.

For FedEx Use Only
Base Charges

Employee Number

Other

Total Charges

By signing you authorize us to deliver this shipment without a signature and agree to indemnify and hold us harmless from any resulting claims.

2 To

Shipment will not be accepted if address below is altered.

M-10091 Rev. 3/10

SAMPLE RECEIVING
TESTAMERICA DENVER
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

NONREDEEMABLE
Please see the back of the receipt for important terms and conditions.

SATURDAY DELIVERY

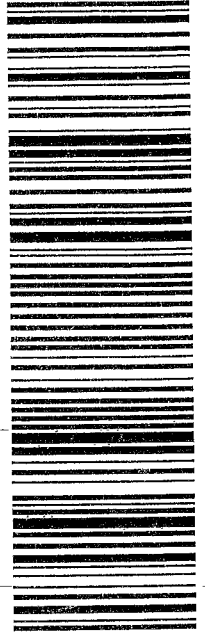
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx

TRK# 8054 3299 7350
0667

X0 WHHA

80002
CO-US
DEN



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1 From

ORDER: 00806279

8210 LOUISIANA Blvd Suite
ABB NM 87113

Package Weight

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Priority
Overnight

Release Signature
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Base Charges

Employee Number

Other

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2 To

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SAMPLE RECEIVING
TESTAMERICA DENVER
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ARVADA, CO 80002
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SATURDAY DELIVERY

SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx

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0667

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1 From

ORDER: 00806279

8210 LAWSIAWA BLD
SUITE C, ARVADA, CO 80002

Package Weight

FedEx
Priority
Overnight®

Release Signature
For nonresidential deliveries.

For FedEx Use Only
Base Charges

Employee Number

Total Charges

Other

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2 To Shipment will not be accepted if address below is altered.

M-10091 Rev. 3/10

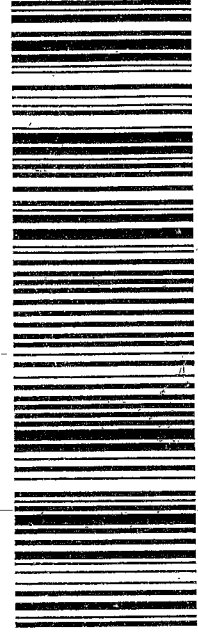
SAMPLE RECEIVING
TESTAMERICA DENVER
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

NONREDEEMABLE
Please see the back of the receipt for important terms and conditions.

SATURDAY DELIVERY

SATURDAY 12:00P
PRIORITY OVERNIGHT

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CO-US
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FTD 789935 06NOV15 GUPA 539C2/3F56/31D6

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997272

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1 From

ORDER: 00806279

8210 LAWSIAWA BLD
SUITE C, ARVADA, CO 80002

Package Weight

FedEx
Priority
Overnight®

Release Signature
For nonresidential deliveries.

For FedEx Use Only
Base Charges

Employee Number

Total Charges

Other

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

2 To Shipment will not be accepted if address below is altered.

M-10091 Rev. 3/10

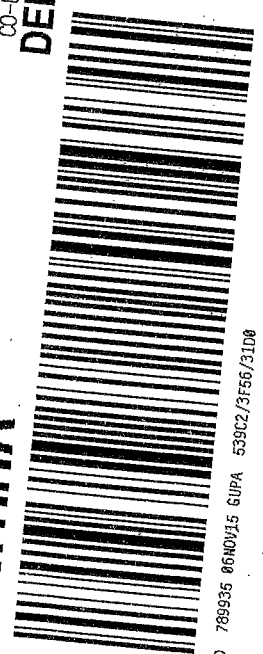
SAMPLE RECEIVING
TESTAMERICA DENVER
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

NONREDEEMABLE
Please see the back of the receipt for important terms and conditions.

SATURDAY DELIVERY

SATURDAY 12:00P
PRIORITY OVERNIGHT

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CO-US
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FTD 789935 06NOV15 GUPA 539C2/3F56/31D6

FedEx Express **Expanded Billable Stamp**
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1 From
 ORDER: 00806279
 8210 LOUISIANA BLDG
 SUITE 0 ARBONMOIS
 ()

Package Weight

FedEx
Priority
Overnight

Release Signature For nonretail deliveries.	For FedEx Use Only Base Charges	Employee Number	Total Charges
		Other	

By signing you authorize us to deliver this shipment without signature and agree to indemnify and hold us harmless from any resulting claims.

2 To Shipment will not be accepted if address below is altered.
 M-10091 Rev. 3/10

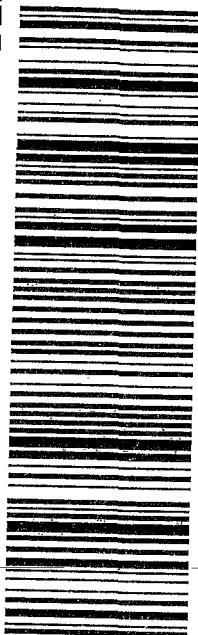
NONREDEEMABLE
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SAMPLE RECEIVING
 TESTAMERICA DENVER
 4955 YARROW ST
 ARVADA, CO 80002
 (303) 736-0100

FedEx
 TRK# 8054 3299 7394
 0667

SATURDAY DELIVERY
SATURDAY 12:00P
PRIORITY OVERNIGHT

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80002
 CO-US
DEN



FTD 789935 06NOV15 GUPA 539CZ/3F56/31D0

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7394

FedEx Express **Expanded Billable Stamp**
 Use only for shipments within the U.S.
 Saturday delivery available.

1 From
 ORDER: 00806279
 8210 LOUISIANA BLDG
 SUITE 0 ARBONMOIS
 ()

Package Weight

FedEx
Priority
Overnight

Release Signature For nonretail deliveries.	For FedEx Use Only Base Charges	Employee Number	Total Charges
		Other	

By signing you authorize us to deliver this shipment without signature and agree to indemnify and hold us harmless from any resulting claims.

2 To Shipment will not be accepted if address below is altered.
 M-10091 Rev. 3/10

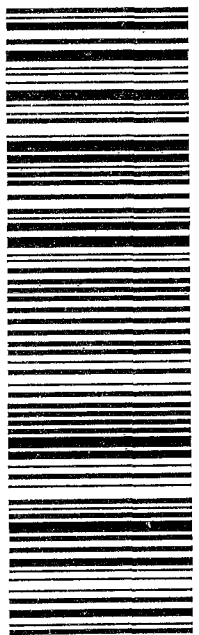
NONREDEEMABLE
 Please see the back of the receipt for important terms and conditions.

SAMPLE RECEIVING
 TESTAMERICA DENVER
 4955 YARROW ST
 ARVADA, CO 80002
 (303) 736-0100

FedEx
 TRK# 8054 3299 7383
 0667

SATURDAY DELIVERY
SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 WHHA
80002
 CO-US
DEN



FTD 789935 06NOV15 GUPA 539CZ/3F56/31D0

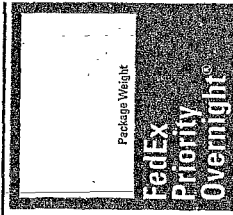
FedEx® Expanded Billable Stamp

Express
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Saturday delivery available.

1 From

ORDER: 00806279

8210 LOUISIANA BLVD NE
SUITE C, ALBANY GA 31707



Release Signature
For nonresidential deliveries.

Employee Number

For FedEx Use Only
Basic Charges

Other

Total Charges

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

2 To Shipment will not be accepted if address below is altered.

M-10091 Rev. 3/10

SAMPLE RECEIVING
TESTAMERICA DENVER
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

NONREDEEMABLE
Please see the back of the receipt for terms and conditions.

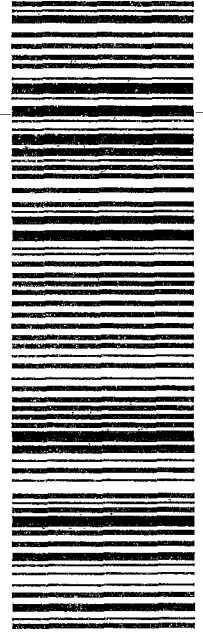
FedEx

TRK# 8054 3299 8195
0667

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 WHHA

80002
CO-US
DEN



Login Sample Receipt Checklist

Client: Sundance Consulting, Inc

Job Number: 280-76532-2

Login Number: 76532
List Number: 1
Creator: Muniz, Ashley T

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	