

## Atmospheric Analysis & Consulting, Inc.

Client : SWAPE  
Client Project Name : Bridgeton Sanitary Landfill Air Quality Assessment  
Client Project No. : NA  
AAC Project No. : 130494  
Reporting Date : 04/26/2013

On April 24, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) DNPH impregnated silica gel cartridges for Carbonyls analysis by EPA Method TO-11A. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:


Client ID	AAC Sample ID
U-1 W5N-DNPH	130494-62608
U-2 W5S-DNPH	130494-62609
D-1 W1-DNPH	130494-62610
D-2 W2-DNPH	130494-62611

TO-11A - HPLC/UV analysis - A 10 $\mu$ L aliquot of the extract was analyzed by HPLC/UV following the analytical protocols of EPA Method TO-11A as specified in the SOW. Holding times for preparation and analysis were complied with.

No problems were encountered during the receipt, preparation, and/or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.11.09.

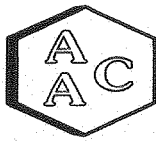
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

  
Marcus Hueppe  
Laboratory Director

This report consists of 50 pages.





### SAMPLE RECEIPT / LOG-IN REPORT

AAC Project 130494

Received By: J. Zachman

<u>Sample Receipt Date</u>	<u>Project Desc</u>	<u>Clients ID</u>	<u>Matrix</u>	<u>Sampling Date/Time</u>	<u>Sampled By</u>	<u>Sample #</u>	<u>Analysis Requested</u>
4/24/2013 0800	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 W5N-DNPH	Tube	4/22/2013 1009	Client	62608	TO11
4/24/2013 0800	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 W5S-DNPH	Tube	4/22/2013 1025	Client	62609	TO11
4/24/2013 0800	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W1-DNPH	Tube	4/22/2013 1047	Client	62610	TO11
4/24/2013 0800	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 W2-DNPH	Tube	4/22/2013 1134	Client	62611	TO11

**TURN AROUND TIME:** Normal (10days)

Lab Due Date: 5/1/2013

Total Samples: 4

**REMARKS:**

Samples received at 0.3°C. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."

AC# 130494

**CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM**

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE  
 Project Manager: PAUL ROSENFELD, PH.D.  
 Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401  
 Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011  
 Date: April 23rd  
 Page 1 of 1

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT  
 Sampled By: John Blank  
 Sampler Signature: *[Signature]*  
 Requested Tests / Analyses:  
 VOCs - EPA TO-15  
 Reduced Sulfur Compounds - ASTM D5504  
 Carbonyls - EPA TO-11A  
 Carboxylic Acids - Tube GC-MS  
 HCL - NIOSH 7903  
 Ammonia - OSHA ID-188  
 SO2 - OSHA ID-200  
 HCN - NIOSH 6010  
 Amines - NIOSH 2010M  
 Fixed Gases - EPA 3C  
 PAHs / Dioxins EPA TO-13A / 9A  
 Mercury - NIOSH 6009  
 Odor Evaluation  
 Special Instructions / Conditions of Receipt

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCs - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Canister #
62608	U-1 W5N- DNPH	Tube	22-Apr	10:09									X					4363701292
62609	U-2 W5S- DNPH	Tube	22-Apr	10:25									X					4363701290
62610	D-1 W1- DNPH	Tube	22-Apr	10:47									X					4363701294
62611	D-2 W2- DNPH	Tube	22-Apr	11:34									X					4363701293
	U-1 W5N- Canister		22-Apr	4 Hr														Canister # 12977
	U-2 W5S- Canister		22-Apr	4 Hr														Canister # 16094
	D-1 W1- Canister		22-Apr	4 Hr														Canister # 13092
	D-2 W2- Canister		22-Apr	4 Hr														Canister # 4386

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.  
 QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By: *[Signature]* John Blank  
 Date: Apr 23nd  
 Time: 12:00pm  
 Received By: *[Signature]*  
 Date: *4/24/2013*  
 Time: 0800

0.30c

- Fed Ex

ARC# 130 494

AMENDED

**CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM**

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE  
 Project Manager: PAUL ROSENFELD, PH.D.  
 Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401  
 Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT  
 Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011  
 Date: 4/24/13 Page 1 of 1

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.  
 DC Requirements: Provide Level IV QC Package for all Analyses.

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
	John Blank																	
62608	U-1 W5N-DUPH	TUBE	4/22/13	10:58			X											SEE NOTE
62609	U-2 W5S-DUPH			10:25			X											
62610	D-1 W2-DUPH			10:47			X											
62611	D-2 W2-DUPH			11:34			X											
	U-1 W5N-Canister		4/22/13				X											
	U-2 W5S-Canister						X											
	D-1 W1-Canister						X											
	D-2 W2-Canister						X											

Relinquished By: [Signature] Date: 4/24/13 Time: 10:00 am  
 Relinquished By: [Signature] Date: [ ] Time: [ ]  
 Relinquished By: [Signature] Date: 4/24/13 Time: 0800

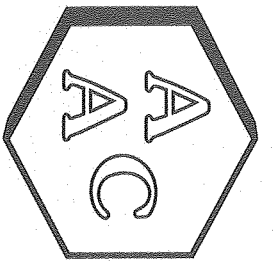
SOIL / WATER / AIR PROTECTION ENTERPRISE  
 Original COC form requested analysis for AMINES. Please analyze samples for Carbonyls - Method ID-11A.

Log of Air Samples Collected on April 22, 2013  
 Bridgeton Sanitary Landfill Air Quality Assessment

Sample Name	Parameter	Tube	Description	Location	Start Time (24-Hour)	Start Flow (L/min)	End Time (24-Hour)	End Flow (L/min)	Flow Rate (L/min)	Run Time (mins)	Volume (Liters)
U-1 W5N-DNPH	Aldehydes	226-120	Off-site Ambient		10:09	1.005	14:09	1.003	1.004	240	241
U-2 W5S-DNPH	Aldehydes	226-120	Off-site Ambient		10:25	1.079	14:25	1.076	1.078	240	259
D-1 W4-DNPH	Aldehydes	226-120	Off-site Ambient		10:47	1.021	14:28	1.015	1.018	221	225
D-2 W2-DNPH	Aldehydes	226-120	Off-site Ambient		11:34	1.080	15:34	1.077	1.079	240	259

NOTES:

# Results



# Atmospheric Analysis & Consulting, Inc.


## LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

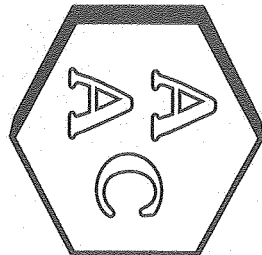
Client : SWAPE  
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment  
 AAC Project No. : 130494  
 Analyst : HP/EG  
 Units : ppbv

Sampling Date (s) : 04/22/2013  
 Receiving Date : 04/24/2013  
 Analysis Date : 04/26/2013  
 Reporting Date : 04/26/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 WSN-DNPH	130494-62608	1.25	0.637	<SRL	1.61	<SRL	2.30	<SRL	0.290	<SRL	<SRL	0.107	<SRL
	SRL	0.253	0.173	0.136	0.131	0.131	0.109	0.109	0.106	0.072	0.088	0.063	0.076
U-2 WSS-DNPH	130494-62609	0.849	0.406	<SRL	1.13	<SRL	1.47	<SRL	0.163	<SRL	<SRL	0.072	<SRL
	SRL	0.236	0.161	0.126	0.122	0.122	0.101	0.101	0.098	0.067	0.082	0.059	0.071
D-1 W1-DNPH	130494-62610	0.858	0.440	<SRL	1.09	<SRL	1.52	<SRL	0.185	<SRL	<SRL	<SRL	<SRL
	SRL	0.276	0.188	0.148	0.143	0.143	0.118	0.118	0.115	0.078	0.096	0.069	0.083
D-2 W2-DNPH	130494-62611	0.923	0.472	<SRL	1.23	<SRL	1.08	<SRL	0.295	<SRL	<SRL	<SRL	<SRL
	SRL	0.254	0.173	0.136	0.132	0.132	0.109	0.109	0.106	0.072	0.089	0.064	0.076

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

  
 Marcus Hueppe  
 Laboratory Director



# Atmospheric Analysis & Consulting, Inc.


## LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE  
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment  
 AAC Project No. : 130494  
 Analyst : HP/EG  
 Units : ug/m<sup>3</sup>

Sampling Date (s) : 04/22/2013  
 Receiving Date : 04/24/2013  
 Analysis Date : 04/26/2013  
 Reporting Date : 04/26/2013

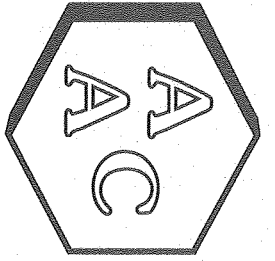
Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W5N-DNPH SRL	130494-62608	1.54 0.311	1.15 0.311	<SRL 0.311	3.82 0.311	<SRL 0.311	6.60 0.311	<SRL 0.311	0.856 0.311	<SRL 0.311	<SRL 0.311	0.527 0.311	<SRL 0.311
U-2 W5S-DNPH SRL	130494-62609	1.04 0.290	0.731 0.290	<SRL 0.290	2.70 0.290	<SRL 0.290	4.21 0.290	<SRL 0.290	0.481 0.290	<SRL 0.290	<SRL 0.290	0.356 0.290	<SRL 0.290
D-1 W1-DNPH SRL	130494-62610	1.05 0.339	0.793 0.339	<SRL 0.339	2.58 0.339	<SRL 0.339	4.37 0.339	<SRL 0.339	0.544 0.339	<SRL 0.339	<SRL 0.339	<SRL 0.339	<SRL 0.339
D-2 W2-DNPH SRL	130494-62611	1.13 0.313	0.851 0.313	<SRL 0.313	2.92 0.313	<SRL 0.313	3.11 0.313	<SRL 0.313	0.869 0.313	<SRL 0.313	<SRL 0.313	<SRL 0.313	<SRL 0.313

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

  
 Marcus Hueppe  
 Laboratory Director



# **QA/QC Summary**



# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report

TO-11A

HPLC Calibration Verification of the 01/16/2013 Calibration

Analysis Date : 04/26/2013  
Analyst : HPE/G

Opening CCV

Instrument ID : HPLC 01

Standard Concentration (ug/ml)	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
2.50	2.57	2.57	2.57	2.56	2.53	2.51	2.55	5.06	2.40	2.56	2.47	2.55
Accuracy (%)*	103	103	103	102	101	100	102	101	96.0	102	98.8	102

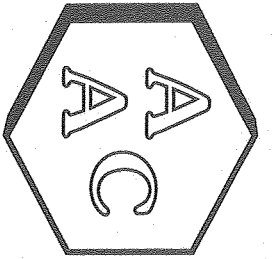
Standard Concentration (ug/ml)	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
2.50	2.62	2.64	2.64	2.64	2.60	2.56	2.61	5.22	2.51	2.69	2.63	2.65
Accuracy (%)*	105	106	106	106	104	102	104	104	100	108	105	106

Standard Concentration (ug/ml)	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
2.50	2.53	2.55	2.56	2.57	2.54	2.54	2.55	5.10	2.51	2.56	2.51	2.55
Accuracy (%)*	101	102	102	103	102	102	102	102	100	102	100	102

Standard Concentration (ug/ml)	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
2.50	2.60	2.61	2.63	2.60	2.61	2.59	2.60	5.19	2.51	2.61	2.55	2.60
Accuracy (%)*	104	104	105	104	104	104	104	104	100	104	102	104

\*Must be 100 ± 10%

Marcus Hueppe  
Laboratory Director



# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report TO-11A Laboratory Control Spike Analysis


Analysis Date : 04/26/2013

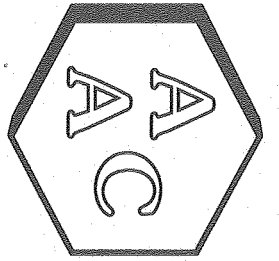
Analyst : HP/EG

Instrument ID : HPLC 01

Analytes	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
Laboratory Control Spike 1												
Sample Concentration (ug/mL)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spike Concentration (ug/mL)	0.379	0.379	0.379	0.379	0.379	0.379	0.379	0.758	0.379	0.379	0.379	0.379
Spiked Sample Concentration (ug/mL)	0.367	0.366	0.379	0.374	0.385	0.378	0.417	0.695	0.369	0.375	0.357	0.386
Spike Recovery (%)*	96.8	96.7	100	98.8	102	100	110	91.8	97.3	99.1	94.1	102

\*Must be 100 ± 15%

  
 Marcus Hueppe  
 Laboratory Director



# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report

TO-11A

Matrix Spike Analysis

Analysis Date : 04/26/2013


Analyst : HP/EG

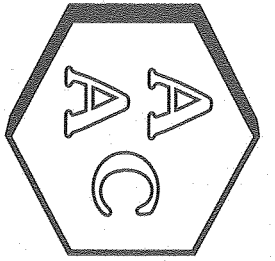
Instrument ID : HPLC 01

Sample ID	130503-62628	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
Sample Concentration (ug/mL)	1.41	0.594	0.009	1.396	0.099	0.003	0.027	0.252	0.042	0.042	0.000	0.035	
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25	
Spiked Sample Concentration (ug/mL)	2.68	1.83	1.22	2.73	1.36	1.27	1.40	2.67	1.28	1.35	1.22	1.29	
Duplicate Spiked Sample Concentration (ug/mL)	2.70	1.86	1.23	2.76	1.38	1.28	1.42	2.69	1.29	1.37	1.24	1.31	
Spike Recovery (%)*	102	98.8	96.9	107	101	101	110	96.7	99.0	105	97.6	100	
Duplicate Spike Recovery (%)*	103	101	97.7	109	102	102	111	97.5	99.8	106	99.2	102	
RPD**	0.7	1.6	0.8	1.1	1.5	0.8	1.4	0.7	0.8	1.5	1.6	1.5	

\*Must be 100± 25%

\*\* Must be ≤ 25%

  
 Marcus Hueppe  
 Laboratory Director



# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report

TO-11A

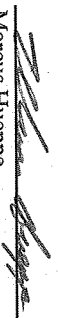
Duplicate Analysis

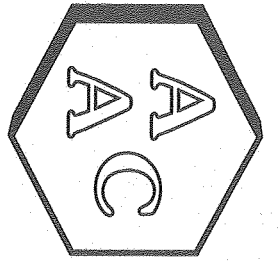
Analysis Date : 04/26/2013  
 Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
Sample ID	130503-62628											
Sample Concentration (ug/ml)	2.82	1.19	<RL	2.79	0.199	<RL	0.054	0.504	0.084	0.085	NID	0.070
Duplicate Sample Concentration (ug/ml)	2.82	1.19	<RL	2.79	0.186	<RL	0.053	0.515	0.085	0.087	NID	0.074
RPD**	0.0	0.1	NA	0.1	6.5	NA	2.8	2.2	1.0	2.6	NA	6.7
Sample ID	130494-62608											
Sample Concentration (ug/ml)	0.123	0.092	<RL	0.307	<RL	0.530	<RL	0.069	<RL	<RL	0.042	<RL
Duplicate Sample Concentration (ug/ml)	0.121	0.092	<RL	0.302	<RL	0.524	<RL	0.072	<RL	<RL	0.041	<RL
RPD**	1.7	0.2	NA	1.8	NA	1.0	NA	4.8	NA	NA	3.1	NA

\*\* Must be  $\leq$  20%  
 <RL=less than the Reporting Limit  
 ND = Not Detected  
 NA=Not Applicable

  
 Marcus Hueppe  
 Laboratory Director



# Atmospheric Analysis & Consulting, Inc.

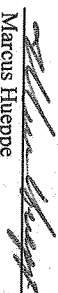
## Quality Control/Quality Assurance Report TO-11A System and Method Blank Analysis

Analysis Date : 04/26/2013  
Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crumaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
Opening Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Method Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Closing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Reporting Limit	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

RL = Reporting Limit  
<RL=less than the Reporting Limit

  
Marcus Hueppe  
Laboratory Director



# Calibration Summary

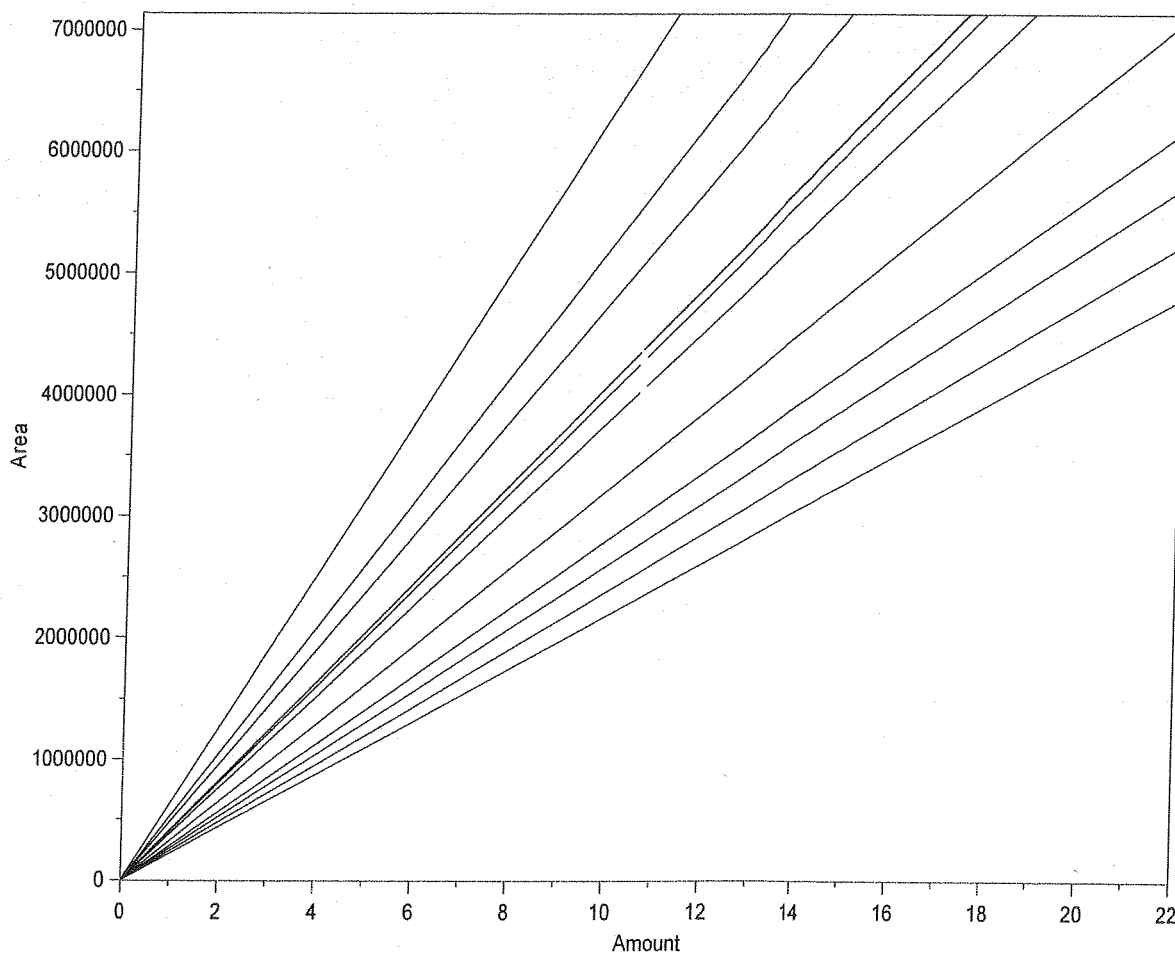


File Name: C:\CP Methods & Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL  
Version: 13  
Creator: EG/HP  
Description: EPA TO-11

External standard calibration  
No injection volume correction  
No sample weight correction  
Area reject threshold: 1000  
Reference peak area reject threshold: 1000  
Amount units: ug/ml  
No default component

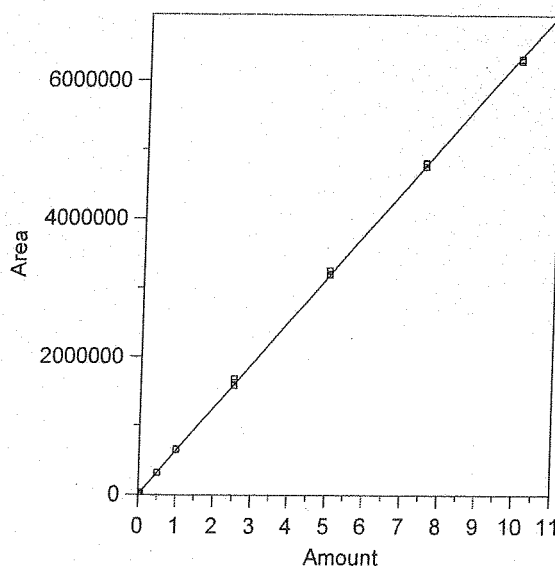
Method of calculating data point averages: Equal weight for all updates  
No calibration update report

All levels are normal data points.



1 Formaldehyde  
Expected retention time: 2.668 minutes  
Search window: 0.1 minutes  
No retention time reference component  
Group number: 0  
High alarm limit: 0

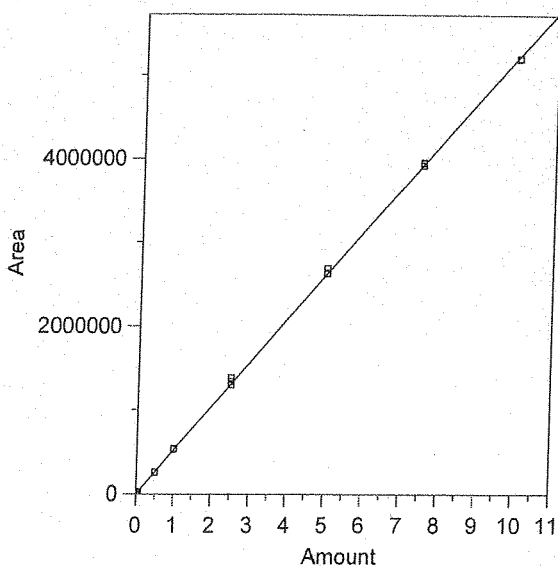
1 Formaldehyde



Expected retention time: 2.668 minutes  
 Search window: 0.1 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 635498.8 X + 0  
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998119  
 Average error: 2.277%  
 Average CF: 646538.3  
 RSD: 2.426%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	3319.347	663869.4	4.464	C:\CP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	3370.723	674144.6	6.081	C:\CP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	3248.552	649710.4	2.236	C:\CP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	16006.42	640256.8	0.749	C:\CP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	16354.98	654199.2	2.943	C:\CP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	16366.92	654676.8	3.018	C:\CP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	32105.94	642118.8	1.042	C:\CP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	33903.62	678072.4	6.699	C:\CP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	33799.1	675982	6.370	C:\CP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	315170.2	630340.4	-0.812	C:\CP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	313531.4	627062.8	-1.327	C:\CP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	311779	623558	-1.879	C:\CP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	657848.8	657848.8	3.517	C:\CP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	645232.1	645232.1	1.532	C:\CP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	655379.7	655379.7	3.128	C:\CP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1573829	629531.6	-0.939	C:\CP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1620797	648318.8	2.017	C:\CP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1673874	669549.6	5.358	C:\CP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	3188477	637695.4	0.346	C:\CP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	3204251	640850.2	0.842	C:\CP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	3251028	650205.6	2.314	C:\CP Data#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	4808576	641143.4	0.888	C:\CP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	4753309	633774.6	-0.271	C:\CP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	4797090	639612	0.647	C:\CP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	6314019	631401.9	-0.645	C:\CP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	6326623	632662.3	-0.446	C:\CP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	6293350	629335	-0.970	C:\CP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

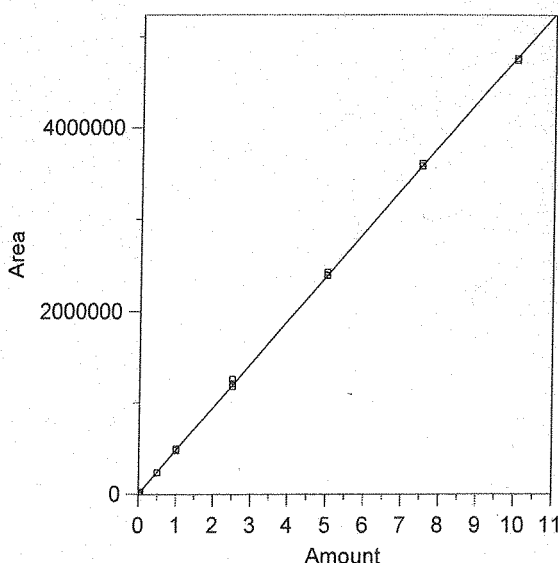
2 Acetaldehyde



Expected retention time: 3.257 minutes  
 Search window: 0.3 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 523848.9 X + 0$   
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998139  
 Average error: 2.531%  
 Average CF: 534292.2  
 RSD: 2.711%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2745.296	549059.2	4.813	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2776.359	555271.8	5.998	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2703.649	540729.8	3.222	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	13497.82	539912.8	3.067	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	13515.47	540618.8	3.201	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	14104.01	564160.4	7.695	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	26300.05	526001	0.411	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	27932.75	558655	6.644	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	27879.66	557593.2	6.442	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	259874.6	519749.2	-0.783	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	258633.5	517267	-1.256	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	256621.7	513243.4	-2.025	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	540890.6	540890.6	3.253	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	530744.3	530744.3	1.316	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	538459.7	538459.7	2.789	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1295813	518325.2	-1.054	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1335265	534106	1.958	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1382832	553132.8	5.590	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2624115	524823	0.186	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2633835	526767	0.557	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2686124	537224.8	2.553	CACP Data#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3950260	526701.3	0.545	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3923232	523097.6	-0.143	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3961766	528235.4	0.837	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	5206756	520675.6	-0.606	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	5208438	520843.8	-0.574	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	5196004	519600.4	-0.811	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

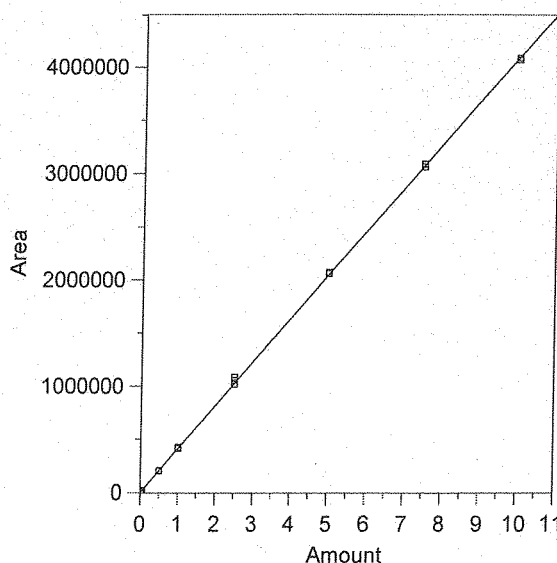
3 Acrolein



Expected retention time: 3.943 minutes  
 Search window: 0.2 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 477513.6 X + 0$   
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998558  
 Average error: 1.593%  
 Average CF: 479383.3  
 RSD: 2.006%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2415.335	483067	1.163	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2359.939	471987.8	-1.157	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2341.276	468255.2	-1.939	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	12230.26	489210.4	2.450	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	11731.43	469257.2	-1.729	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	12013.16	480526.4	0.631	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	23533.81	470676.2	-1.432	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	24849.35	496987	4.078	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	24508.45	490169	2.650	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	234643.4	469286.8	-1.723	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	235366	470732	-1.420	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	231717.2	463434.4	-2.948	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	492637.6	492637.6	3.167	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	473624.6	473624.6	-0.814	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	486674.4	486674.4	1.918	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1178759	471503.6	-1.259	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1212454	484981.6	1.564	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1260575	504230	5.595	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2391359	478271.8	0.159	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2397531	479506.2	0.417	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2423446	484689.2	1.503	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3608190	481092	0.749	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3578272	477102.9	-0.086	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3607869	481049.2	0.740	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4739617	473961.7	-0.744	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	4740989	474098.9	-0.715	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	4763349	476334.9	-0.247	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

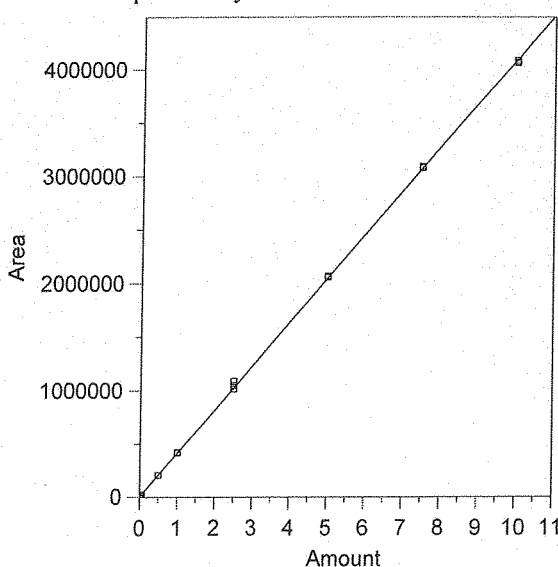
4 Acetone



Expected retention time: 4.132 minutes  
 Search window: 0.4 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 410240.1 X + 0$   
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.999868  
 Average error: 2.733%  
 Average CF: 420186.8  
 RSD: 2.868%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2183.345	436669	6.442	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2162.857	432571.4	5.443	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2166.039	433207.8	5.599	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	10593.84	423753.6	3.294	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	11158.68	446347.2	8.801	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	10863.23	434529.2	5.921	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	20778.5	415570	1.299	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	22119.85	442397	7.839	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	21561.34	431226.8	5.116	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	206884.7	413769.4	0.860	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	202801.7	405603.4	-1.130	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	204367.4	408734.8	-0.367	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	423714.7	423714.7	3.285	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	413611.8	413611.8	0.822	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	424962.7	424962.7	3.589	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1017069	406827.6	-0.832	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1052471	420988.4	2.620	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1082277	432910.8	5.526	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2059978	411995.6	0.428	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2061998	412399.6	0.526	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2074281	414856.2	1.125	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	3090544	412072.5	0.447	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3065231	408697.5	-0.376	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3096511	412868.1	0.641	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4075368	407536.8	-0.659	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	4095606	409560.6	-0.166	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	4076624	407662.4	-0.628	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

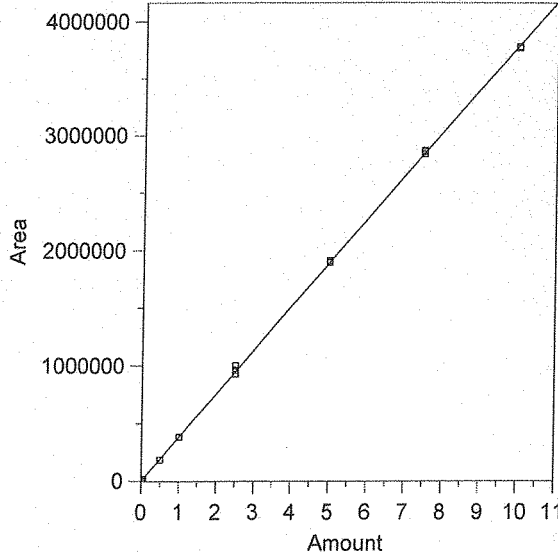
5 Propionaldehyde



Expected retention time: 4.392 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 409729.4 X + 0  
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998541  
 Average error: 2.076%  
 Average CF: 414811.5  
 RSD: 2.614%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1972.789	394557.8	-3.703	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1996.396	399279.2	-2.551	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2036.421	407284.2	-0.597	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	10616.59	424663.6	3.645	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	10751.91	430076.4	4.966	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	10655.2	426208	4.022	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	20828.86	416577.2	1.671	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	22022.53	440450.6	7.498	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	21487.62	429752.4	4.887	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	203755.9	407511.8	-0.541	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	204614.9	409229.8	-0.122	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	202760.2	405520.4	-1.027	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	422491.5	422491.5	3.115	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	414054.3	414054.3	1.056	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	418737.7	418737.7	2.199	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1013506	405402.4	-1.056	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1049219	419687.6	2.430	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1088355	435342	6.251	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2055268	411053.6	0.323	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2059857	411971.4	0.547	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2067409	413481.8	0.916	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3090514	412068.5	0.571	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3078345	410446	0.175	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3088245	411766	0.497	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4063636	406363.6	-0.821	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	4072347	407234.7	-0.609	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	4086977	408697.7	-0.252	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

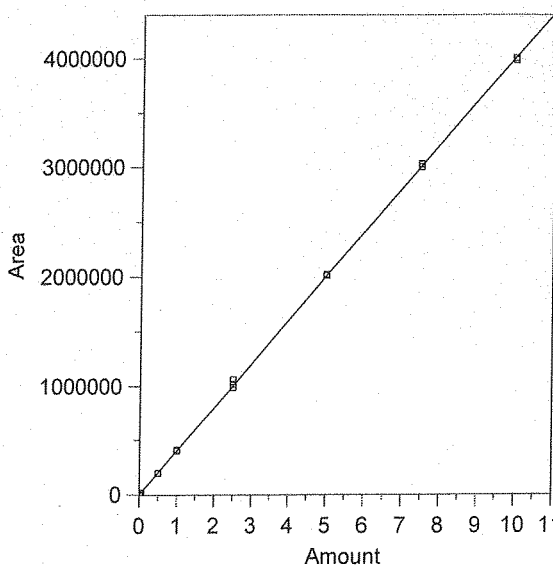
6 Crotonaldehyde



Expected retention time: 5.161 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 379197.3 X + 0  
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998879  
 Average error: 2.055%  
 Average CF: 377240.3  
 RSD: 2.954%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1763.188	352637.6	-7.004	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1769.861	353972.2	-6.652	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1774.771	354954.2	-6.393	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	9632.542	385301.7	1.610	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	9590.598	383623.9	1.167	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	9482.347	379293.9	0.025	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	18280.8	365616	-3.582	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	19753.15	395063	4.184	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	19265.63	385312.6	1.613	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	184891.2	369782.4	-2.483	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	184884.5	369769	-2.486	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	185209	370418	-2.315	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	385583	385583	1.684	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	378746.3	378746.3	-0.119	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	383412.3	383412.3	1.112	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	927177.1	370870.8	-2.196	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	962027.6	384811.1	1.480	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	999406.8	399762.7	5.423	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1894920	378984	-0.056	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1912362	382472.4	0.864	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1900975	380195	0.263	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	2868305	382440.7	0.855	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	2837994	378399.2	-0.210	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	2857948	381059.7	0.491	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	3777541	377754.1	-0.381	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	3769081	376908.1	-0.604	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	3783434	378343.4	-0.225	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

7 Methacrolein

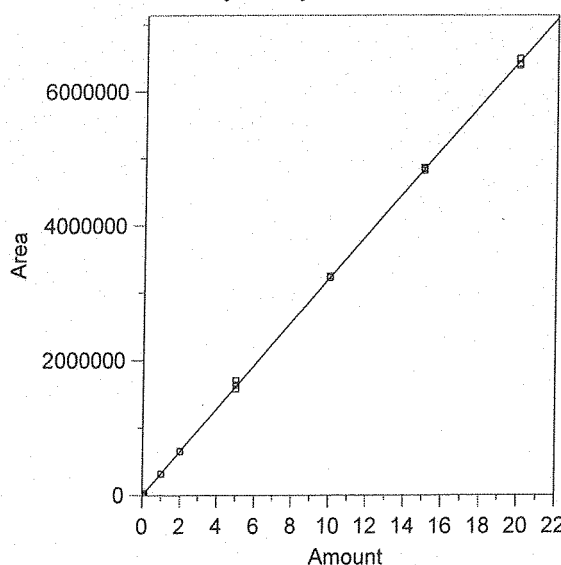


Expected retention time: 5.502 minutes  
 Search window: 0.5 minutes  
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 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 401227.3 X + 0$   
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998807  
 Average error: 1.583%  
 Average CF: 405093.2  
 RSD: 1.942%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1996.921	399384.2	-0.459	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2026.085	405217	0.994	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2064.975	412995	2.933	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	10232.26	409290.4	2.010	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	10312.39	412495.6	2.808	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	10222.34	408893.6	1.911	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	19918.92	398378.4	-0.710	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	21271.74	425434.8	6.033	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	20500.99	410019.8	2.191	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	197838.8	395677.6	-1.383	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	197555.6	395111.2	-1.524	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	198160.6	396321.2	-1.223	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	410566.2	410566.2	2.328	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	403644.6	403644.6	0.602	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	411295.8	411295.8	2.509	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	988448.4	395379.3	-1.458	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1020493	408197.2	1.737	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1060355	424142	5.711	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2012112	402422.4	0.298	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2012416	402483.2	0.313	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2019797	403959.4	0.681	CACP Data#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3032186	404291.5	0.764	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3000600	400080	-0.286	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3026002	403466.9	0.558	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4001513	400151.3	-0.268	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	3982305	398230.5	-0.747	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	3999860	399986	-0.309	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM



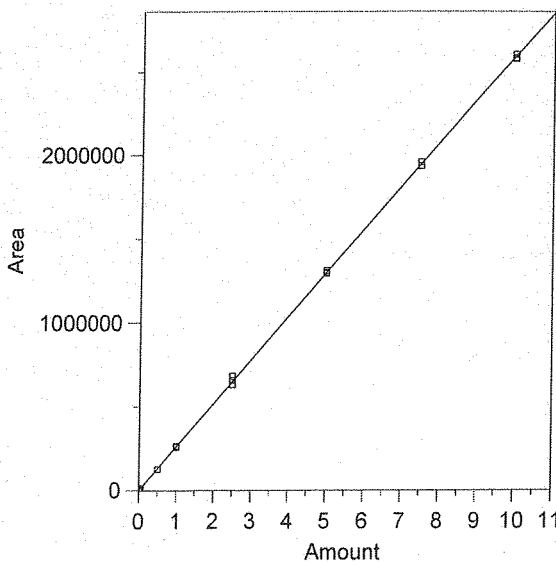
8 MEK & Butyraldehyde



Expected retention time: 5.872 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 322232.7 X + 0$   
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.999867  
 Average error: 2.084%  
 Average CF: 327115.7  
 RSD: 2.391%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.01	3351.753	335175.3	4.017	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.01	3391.47	339147	5.249	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.01	3384.082	338408.2	5.020	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.05	16525.07	330501.4	2.566	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.05	16528.89	330577.8	2.590	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.05	16684.14	333682.8	3.553	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.1	32230.04	322300.4	0.021	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.1	34515.54	345155.4	7.114	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.1	33411.08	334110.8	3.686	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	1	317772.7	317772.7	-1.384	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	1	319288.8	319288.8	-0.914	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	1	317344.1	317344.1	-1.517	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	2	659698.4	329849.2	2.364	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	2	648058.6	324029.3	0.558	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	2	660032.3	330016.2	2.415	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	5	1578239	315647.8	-2.044	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	5	1635369	327073.8	1.502	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	5	1699770	339954	5.500	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	10	3225144	322514.4	0.087	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	10	3232554	323255.4	0.317	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	10	3248338	324833.8	0.807	CACP Data#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	15	4858471	323898.1	0.517	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	15	4813685	320912.3	-0.410	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	15	4835401	322360.1	0.040	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	20	6411478	320573.9	-0.515	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	20	6386688	319334.4	-0.899	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	20	6488133	324406.7	0.675	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

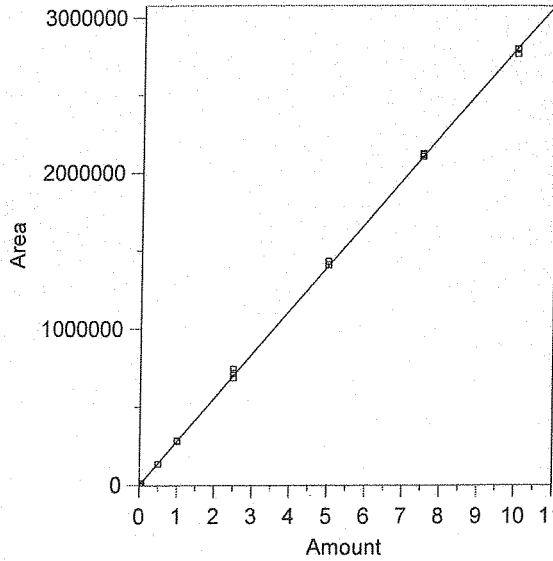
9 Benzaldehyde



Expected retention time: 6.315 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 259532.3 X + 0$   
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9998788  
 Average error: 1.745%  
 Average CF: 259316.8  
 RSD: 2.653%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1297.518	259503.6	-0.011	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1262	252400	-2.748	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1295.839	259167.8	-0.140	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	6666.208	266648.3	2.742	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	7034.047	281361.9	8.411	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	6534.359	261374.4	0.710	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	12466.06	249321.2	-3.934	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	13008.72	260174.4	0.247	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	12791.38	255827.6	-1.427	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	124939.2	249878.4	-3.720	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	125454.3	250908.6	-3.323	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	125079.6	250159.2	-3.612	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	262209.1	262209.1	1.031	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	257536.3	257536.3	-0.769	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	260766	260766	0.475	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	628872.8	251549.1	-3.076	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	656123.5	262449.4	1.124	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	681751.6	272700.7	5.074	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1294694	258938.8	-0.229	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1299522	259904.4	0.143	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1309382	261876.4	0.903	CACP Data#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	1958642	261152.3	0.624	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1935214	258028.5	-0.579	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1957459	260994.5	0.563	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2584429	258442.9	-0.420	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2577391	257739.1	-0.691	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2605401	260540.1	0.388	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

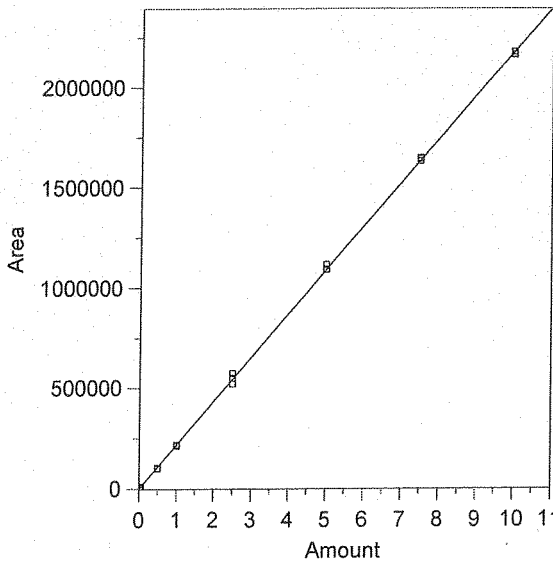
10 Valeraldehyde



Expected retention time: 8.218 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 280512 X + 0  
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9997866  
 Average error: 2.469%  
 Average CF: 283524.1  
 RSD: 3.137%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1445.899	289179.8	3.090	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1390.823	278164.6	-0.837	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1340.829	268165.8	-4.401	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	7353.619	294144.8	4.860	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	7425.595	297023.8	5.886	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	7536.798	301471.9	7.472	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	14114.53	282290.6	0.634	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	15079.2	301584	7.512	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	14163.98	283279.6	0.987	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	135255.9	270511.8	-3.565	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	136645.9	273291.8	-2.574	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	135763.1	271526.2	-3.203	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	286190.2	286190.2	2.024	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	281834.7	281834.7	0.472	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	286224.8	286224.8	2.037	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	685932.9	274373.2	-2.188	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	715768.4	286307.3	2.066	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	742902.5	297161	5.935	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1409340	281868	0.483	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1412526	282505.2	0.711	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1432906	286581.2	2.164	CACP Data#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	2123480	283130.7	0.934	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	2104405	280587.3	0.027	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	2115076	282010.1	0.534	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2797888	279788.8	-0.258	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2792255	279225.5	-0.459	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2767273	276727.3	-1.349	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

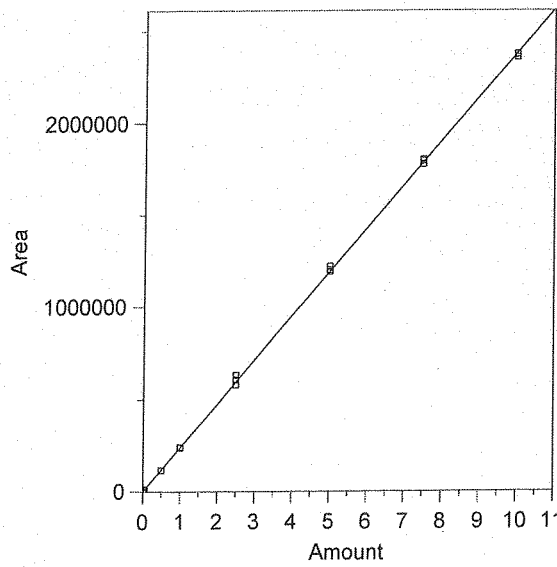
11 m-Tolualdehyde



Expected retention time: 8.714 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High a arm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 217944 X + 0  
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.999814  
 Average error: 2.420%  
 Average CF: 216368.5  
 RSD: 3.395%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1084.321	216864.2	-0.495	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1047.397	209479.4	-3.884	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1050.553	210110.6	-3.594	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	5352.188	214087.5	-1.769	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	5534.859	221394.4	1.583	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	5846.229	233849.2	7.298	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	10182.27	203645.4	-6.561	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	10890.73	217814.6	-0.059	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	11251.93	225038.6	3.255	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	101870.9	203741.8	-6.516	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	104487.3	208974.6	-4.115	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	101281.7	202563.4	-7.057	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	218741.4	218741.4	0.366	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	214107.1	214107.1	-1.761	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	216178.3	216178.3	-0.810	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	521558	208623.2	-4.277	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	549983.3	219993.3	0.940	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	574107.8	229643.1	5.368	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1091337	218267.4	0.148	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1093125	218625	0.312	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1115959	223191.8	2.408	CACP Data#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	1646059	219474.5	0.702	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1632394	217652.5	-0.134	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1643241	219098.8	0.530	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2178426	217842.6	-0.047	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2164076	216407.6	-0.705	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2165400	216540	-0.644	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

12 Hexaldehyde

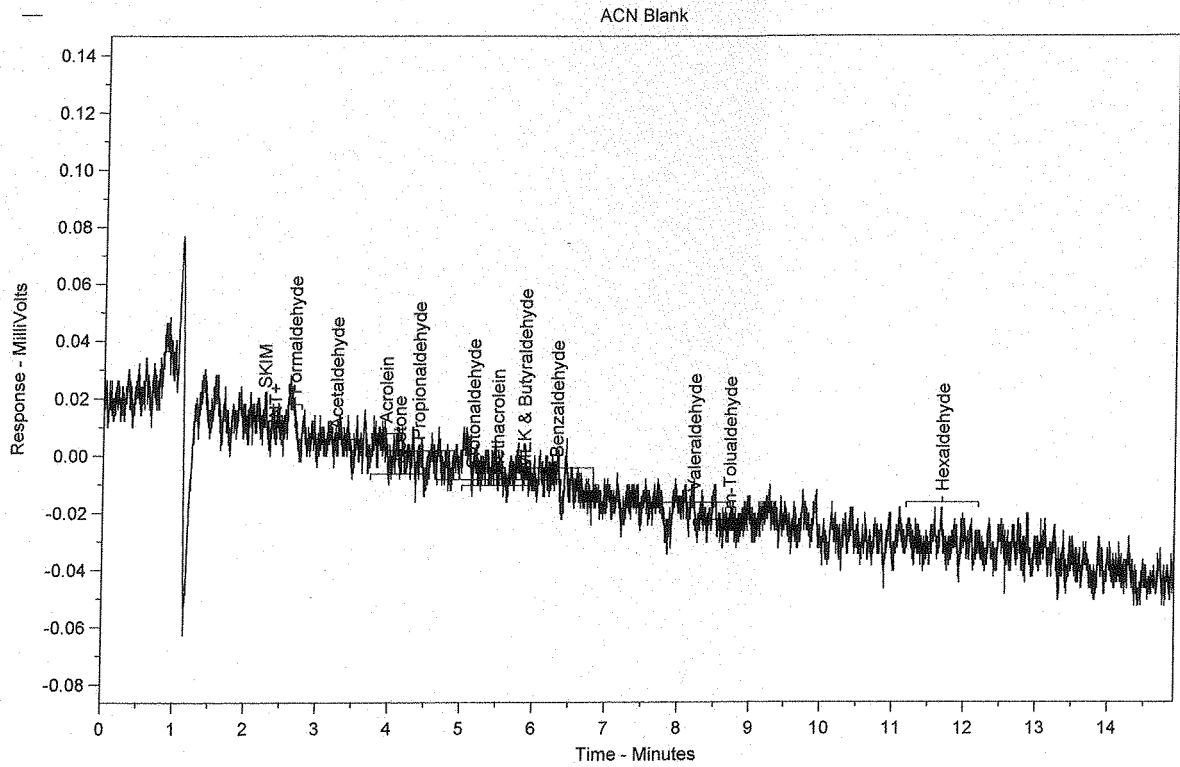


Expected retention time: 11.69 minutes  
 Search window: 0.5 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 238038.2 X + 0  
 Linear fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9997897  
 Average error: 2.235%  
 Average CF: 239924.7  
 RSD: 2.911%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1179.385	235877	-0.908	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1141.726	228345.2	-4.072	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1198.028	239605.6	0.658	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	5798.175	231927	-2.567	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	6347.2	253888	6.659	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	6114.321	244572.8	2.745	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	12059.8	241196	1.327	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	12746.25	254925	7.094	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	12547.26	250945.2	5.422	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	116351.3	232702.6	-2.241	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	116956.5	233913	-1.733	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	115390.1	230780.2	-3.049	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	242438.8	242438.8	1.849	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	239854.8	239854.8	0.763	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	241212.3	241212.3	1.333	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	579103.3	231641.3	-2.687	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	607368.1	242947.3	2.062	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	632353.5	252941.4	6.261	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1190551	238110.2	0.030	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1200522	240104.4	0.868	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1219377	243875.4	2.452	CACP Data#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	1800685	240091.3	0.863	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1775360	236714.7	-0.556	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1793857	239180.9	0.480	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2371220	237122	-0.385	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2356180	235618	-1.017	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2374361	237436.1	-0.253	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

# Raw Data

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0001.RAW

Date Taken (end) = 4/26/2013 8:06:47 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 1

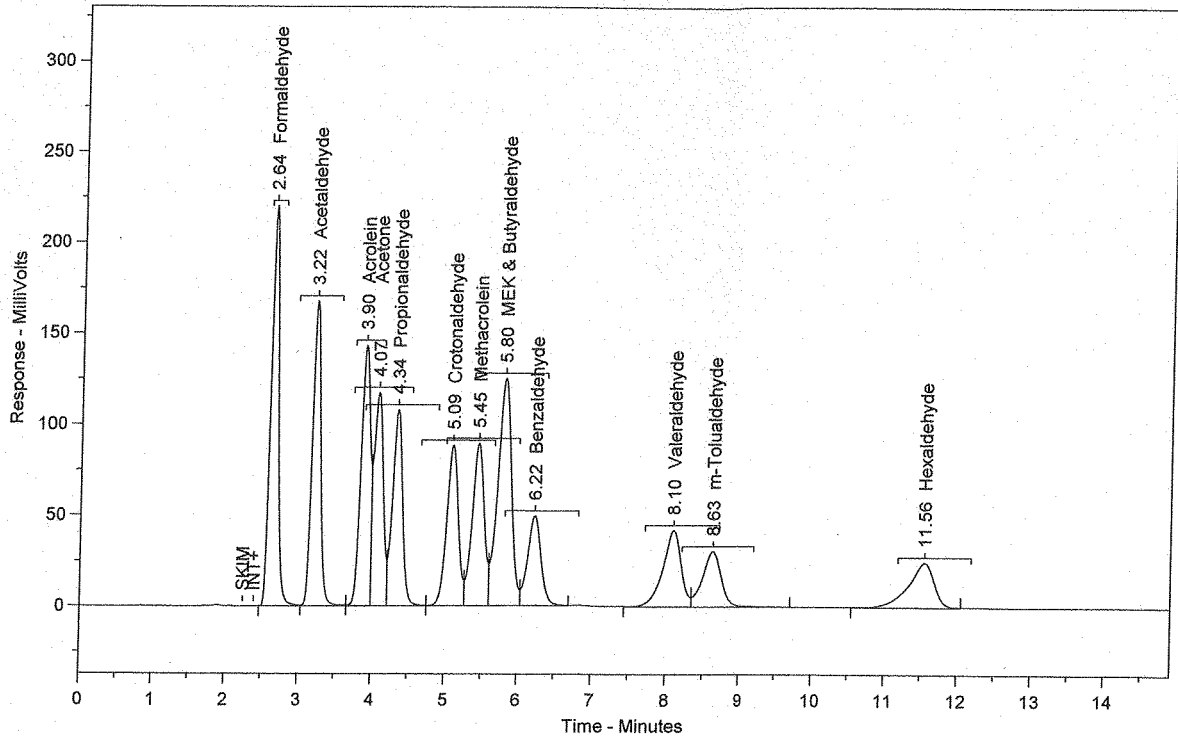
Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0002.RAW

Date Taken (end) = 4/26/2013 8:23:23 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 2

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.64	Formaldehyde	2.5691	7.811	1632672	13.185	SBB	0.11
2	3.22	Acetaldehyde	2.5717	7.819	1347178	10.880	TBV	0.12
3	3.90	Acrolein	2.5721	7.820	1228216	9.919	TWV	0.16
4	4.07	Acetone	2.5599	7.783	1050175	8.481	TWV	0.15
5	4.34	Propionaldehyde	2.5316	7.697	1037281	8.377	TWV	0.15
6	5.09	Crotonaldehyde	2.5051	7.616	949916	7.671	TWV	0.17
7	5.45	Methacrolein	2.5473	7.745	1022056	8.254	TWV	0.16
8	5.80	MEK & Butyraldehyde	5.0554	15.370	1629001	13.155	TWV	0.19
9	6.22	Benzaldehyde	2.4042	7.310	623975	5.039	TVB	0.19
10	8.10	Valeraldehyde	2.5581	7.777	717584	5.795	BV	0.25
11	8.63	m-Tolualdehyde	2.4674	7.502	537751	4.343	VB	0.26
12	11.56	Hexaldehyde	2.5497	7.752	606916	4.901	BB	0.36

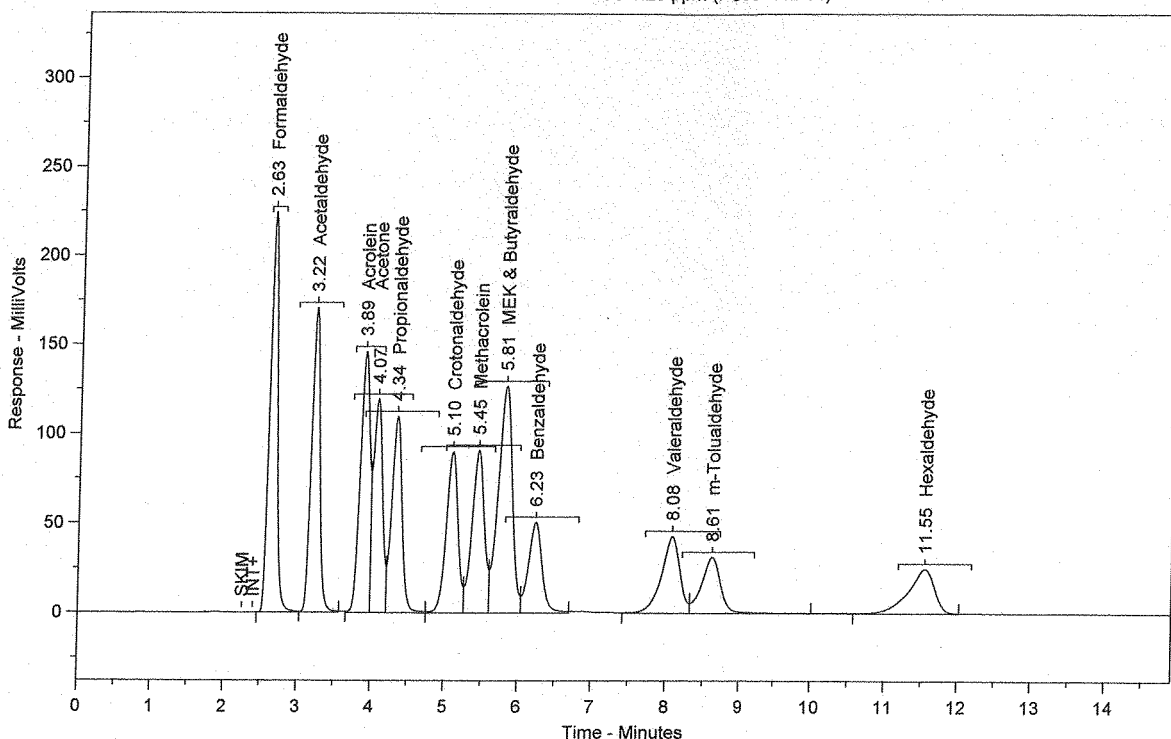
Total Area = 1.238272E+07

Total Height = 1204206

Total Amount = 32.89159



SS 1.25 ppm (PS080412-01)



Sample Name = SS 1.25 ppm (PS080412-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0003.RAW

Date Taken (end) = 4/26/2013 8:39:58 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 3

Injection Volume = 10

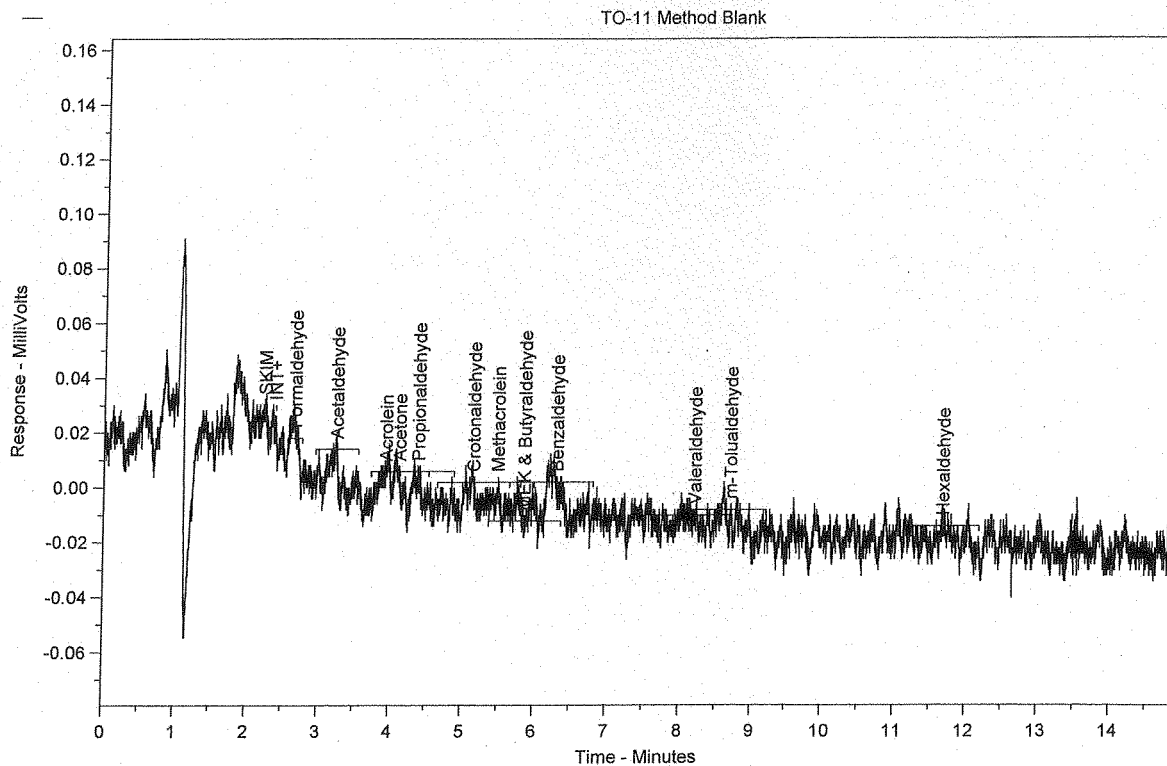
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	2.6038	7.725	1654681	13.059	SBB	0.11
2	3.22	Acetaldehyde	2.6124	7.750	1368509	10.800	TBB	0.12
3	3.89	Acrolein	2.6335	7.813	1257556	9.924	BV	0.16
4	4.07	Acetone	2.5974	7.706	1065557	8.409	VV	0.15
5	4.34	Propionaldehyde	2.6059	7.731	1067696	8.426	VV	0.15
6	5.10	Crotonaldehyde	2.5899	7.684	982100	7.751	VV	0.17
7	5.45	Methacrolein	2.6019	7.719	1043972	8.239	VV	0.16
8	5.81	MEK & Butyraldehyde	5.1910	15.400	1672701	13.201	VV	0.19
9	6.23	Benzaldehyde	2.5094	7.444	651259	5.140	VB	0.19
10	8.08	Valeraldehyde	2.6083	7.738	731657	5.774	BV	0.25
11	8.61	m-Tolualdehyde	2.5541	7.577	556651	4.393	VV	0.26
12	11.55	Hexaldehyde	2.6000	7.713	618897	4.884	VB	0.36

Total Area = 1.267124E+07

Total Height = 1226464

Total Amount = 33.70757



Sample Name = TO-11 Method Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0004.RAW

Date Taken (end) = 4/26/2013 8:56:34 AM

Method File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

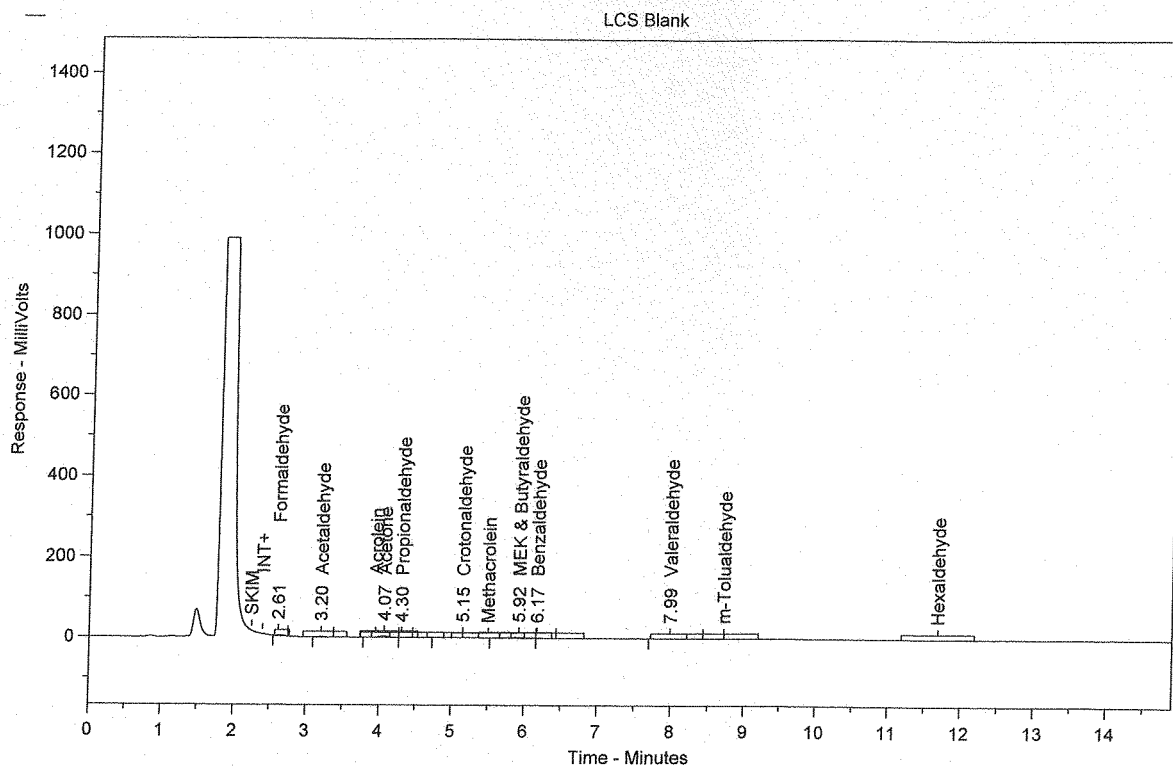
Run Time = 14.89889

Vial Number = 4

Injection Volume = 10

Dilution Factor = 1

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Sample Name = LCS Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0005.RAW

Date Taken (end) = 4/26/2013 9:13:09 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 5

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.61	Formaldehyde	0.0159	8.012	10081	13.163	BB	0.13
2	3.20	Acetaldehyde	0.0136	6.888	7144	9.328	BB	0.14
3	4.07	Acetone	0.0671	33.915	27547	35.971	BV	0.14
4	4.30	Propionaldehyde	0.0034	1.708	1385	1.809	VB	0.12
5	5.15	Crotonaldehyde	0.0029	1.486	1116	1.457	BB N	0.13
6	5.92	MEK & Butyraldehyde	0.0679	34.312	21891	28.585	BV	0.24
7	6.17	Benzaldehyde	0.0085	3.308	2214	2.890	VB	0.14
8	7.99	Valeraldehyde	0.0186	9.372	5205	6.797	BB	0.31

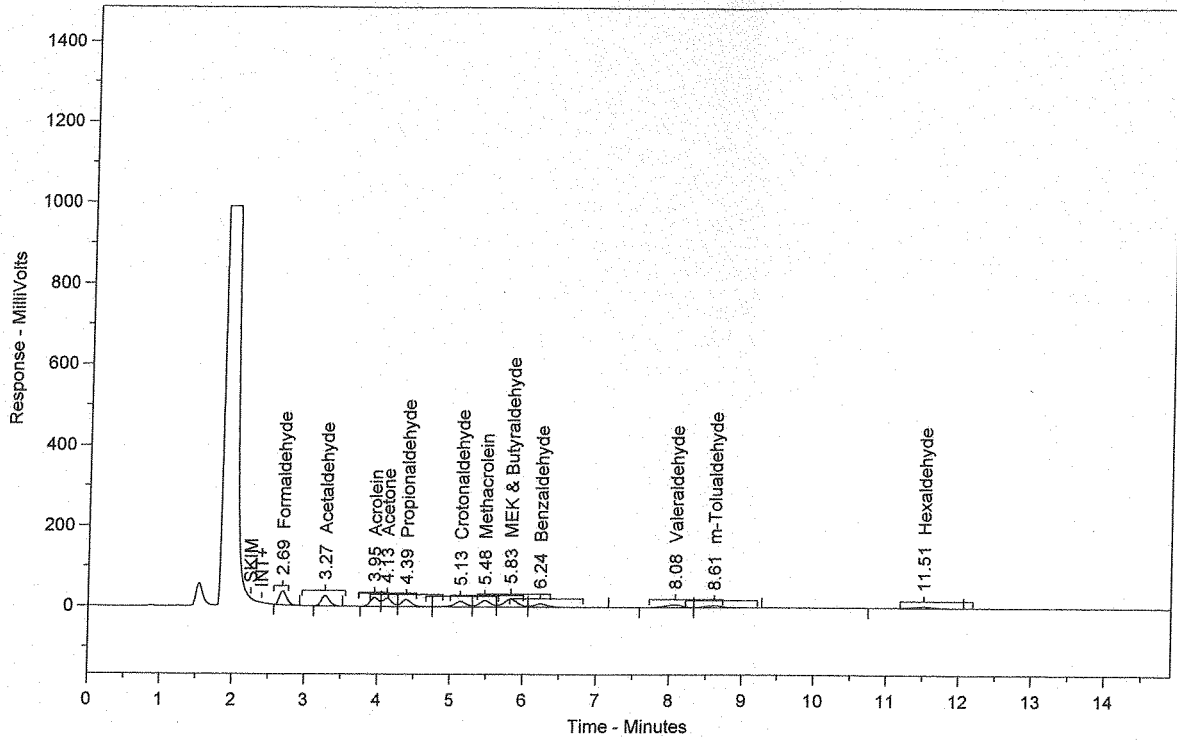
Total Area = 76583.05

Total Height = 7718.168

Total Amount = 0.1979942

Chrom Perfect Chromatogram Report

LCS 1.25ug/mL (PS011013-01)



Sample Name = LCS 1.25ug/mL (PS011013-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\0426\3\042613.0006.RAW

Date Taken (end) = 4/26/2013 9:29:45 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 6

Injection Volume = 10

Dilution Factor = 1

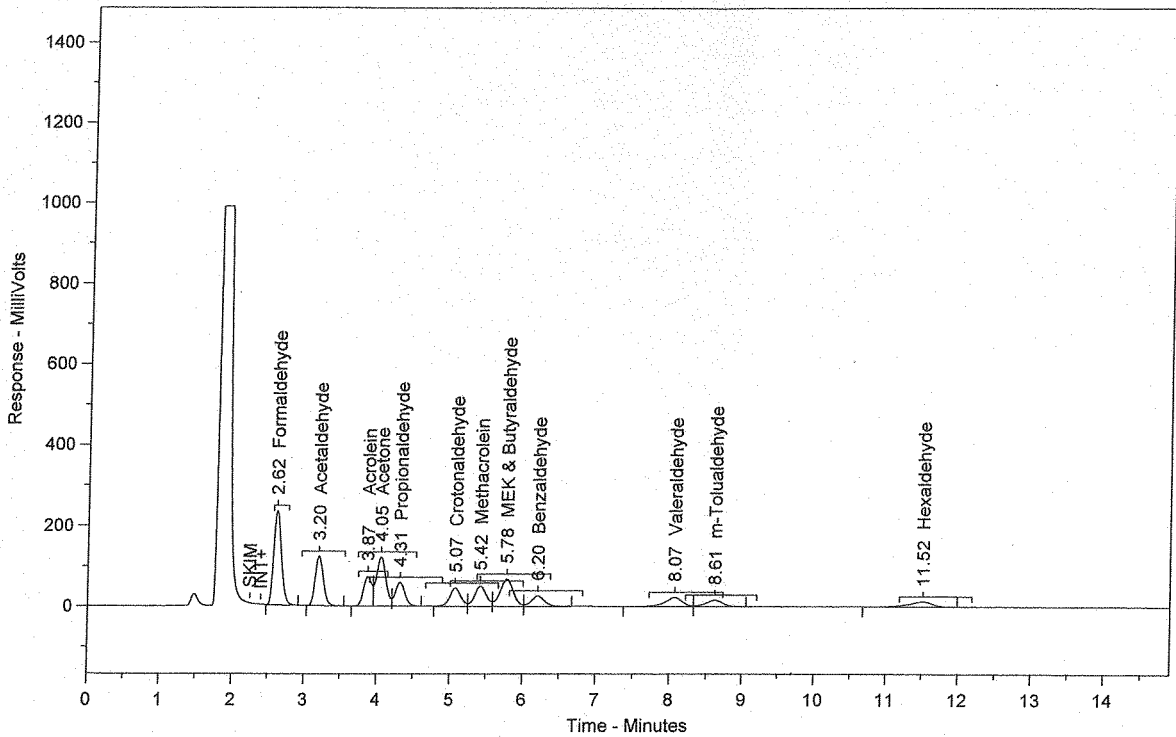
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.3825	7.584	243083	12.807	BB	0.12
2	3.27	Acetaldehyde	0.3799	7.532	199001	10.485	BB	0.12
3	3.95	Acrolein	0.3785	7.504	180734	9.522	BV	0.16
4	4.13	Acetone	0.4413	8.750	181049	9.539	VV	0.15
5	4.39	Propionaldehyde	0.3881	7.695	159018	8.378	VV	0.15
6	5.13	Crotonaldehyde	0.3804	7.542	144251	7.600	VV	0.16
7	5.48	Methacrolein	0.4165	8.257	167092	8.803	VV	0.15
8	5.83	MEK & Butyraldehyde	0.7632	15.132	245922	12.957	VV	0.18
9	6.24	Benzaldehyde	0.3772	7.480	97908	5.158	VB	0.19
10	8.08	Valeraldehyde	0.3939	7.810	110494	5.822	BV	0.24
11	8.61	m-Tolualdehyde	0.3565	7.068	77691	4.093	VB	0.25
12	11.51	Hexaldehyde	0.3856	7.646	91790	4.836	BB	0.34

Total Area = 1898033

Total Height = 188781.1

Total Amount = 5.043585

MS 130503-62628 1.25 ppm [(PS011613-01x2)]



Sample Name = MS 130503-62628 1.25 ppm [(PS011613-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0007.RAW

Date Taken (end) = 4/26/2013 9:46:20 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 7

Injection Volume = 10

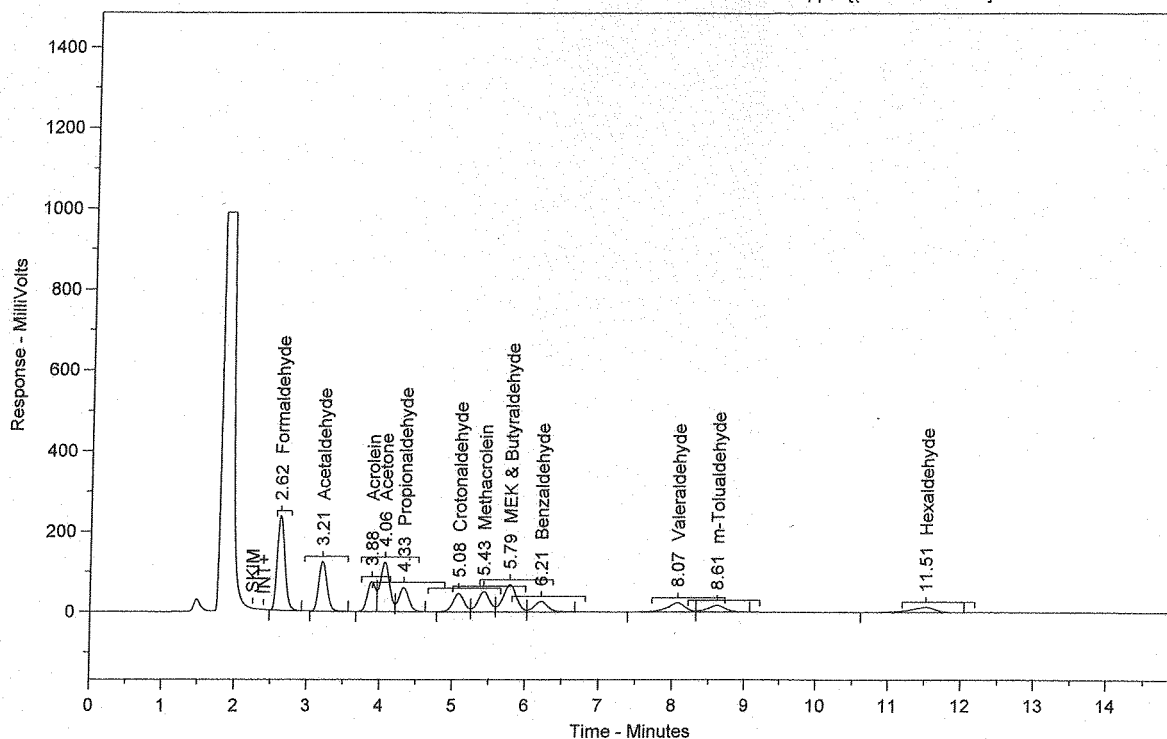
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	2.6816	13.207	1704161	21.009	BB	0.11
2	3.20	Acetaldehyde	1.8343	9.034	960901	11.846	BB	0.12
3	3.87	Acrolein	1.2159	5.988	580602	7.158	BV	0.14
4	4.05	Acetone	2.7323	13.457	1120901	13.819	VV	0.13
5	4.31	Propionaldehyde	1.3643	6.719	558980	6.891	VB	0.15
6	5.07	Crotonaldehyde	1.2686	6.248	481069	5.931	BV	0.16
7	5.42	Methacrolein	1.3983	6.886	561025	6.916	VV	0.16
8	5.78	MEK & Butyraldehyde	2.6691	13.145	860086	10.603	VV	0.19
9	6.20	Benzaldehyde	1.2758	6.283	331114	4.082	VB	0.19
10	8.07	Valeraldehyde	1.3512	6.655	379025	4.673	BV	0.24
11	8.61	m-Tolualdehyde	1.2202	6.009	265925	3.278	VB	0.24
12	11.52	Hexaldehyde	1.2931	6.368	307806	3.795	BB	0.34

Total Area = 8111595

Total Height = 850343.2

Total Amount = 20.3047



Sample Name = MSD 130503-62628 1.25 ppm [(PS011613-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0008.RAW

Date Taken (end) = 4/26/2013 10:02:55 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 8

Injection Volume = 10

Dilution Factor = 1

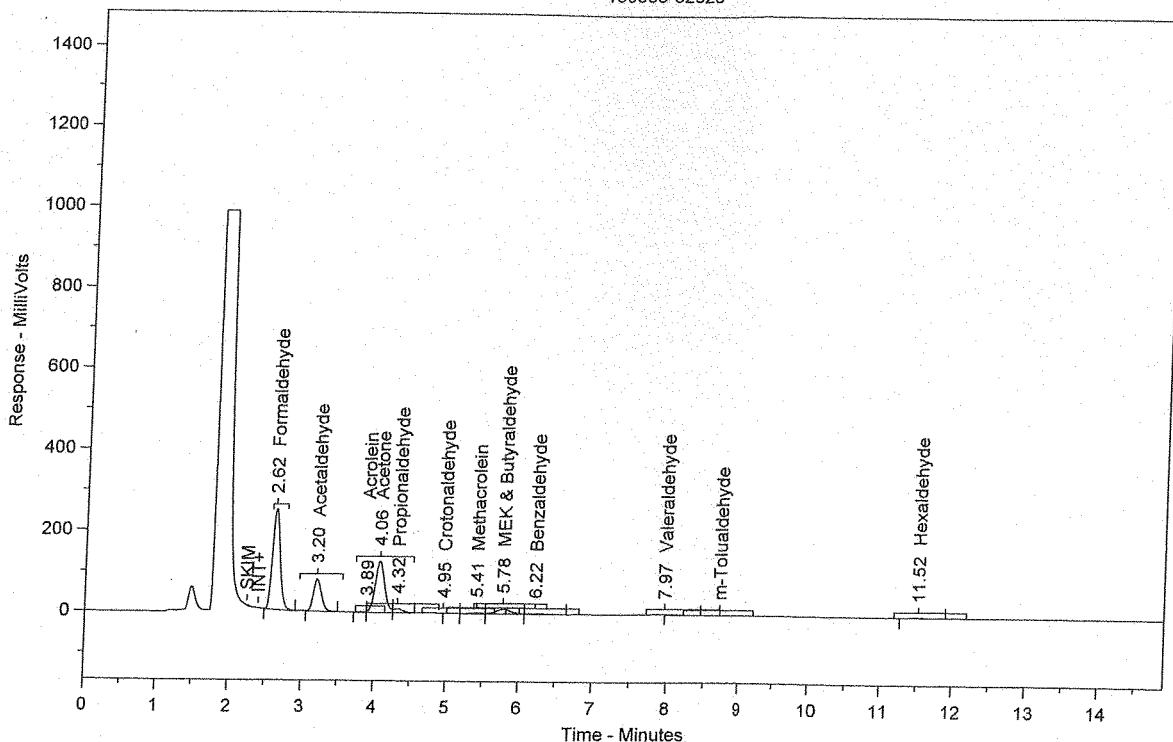
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	2.7020	13.152	1717115	20.932	BB	0.11
2	3.21	Acetaldehyde	1.8579	9.043	973254	11.864	BB	0.12
3	3.88	Acrolein	1.2298	5.986	587240	7.158	BV	0.14
4	4.06	Acetone	2.7624	13.446	1133252	13.814	VV	0.13
5	4.33	Propionaldehyde	1.3826	6.730	566490	6.906	VB	0.15
6	5.08	Crotonaldehyde	1.2797	6.229	485253	5.915	BV	0.16
7	5.43	Methacrolein	1.4225	6.924	570745	6.957	VV	0.16
8	5.79	MEK & Butyraldehyde	2.6920	13.103	867456	10.574	VV	0.19
9	6.21	Benzaldehyde	1.2897	6.278	334721	4.080	VB	0.19
10	8.07	Valeraldehyde	1.3729	6.682	385109	4.694	BV	0.25
11	8.61	m-Tolualdehyde	1.2395	6.033	270139	3.293	VB	0.25
12	11.51	Hexaldehyde	1.3135	6.393	312665	3.811	BB	0.36

Total Area = 8203439

Total Height = 853654.8

Total Amount = 20.54446

130503-62628



Sample Name = 130503-62628

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0009.RAW

Date Taken (end) = 4/26/2013 10:19:34 AM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0009.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0009.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 9

Injection Volume = 10

Dilution Factor = 1

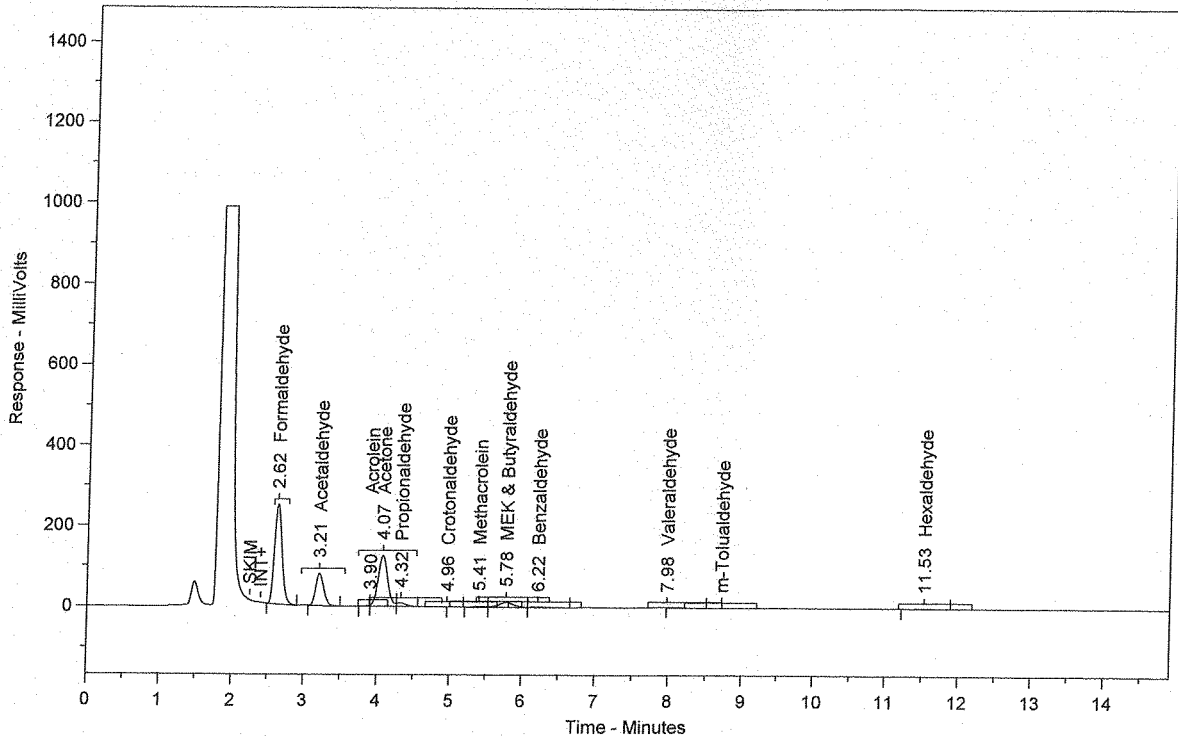
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	2.8194	36.061	1791747	45.965	BB	0.11
2	3.20	Acetaldehyde	1.1888	15.205	622756	15.976	BB	0.12
3	3.89	Acrolein	0.0172	0.220	8201	0.210	BV	0.04
4	4.06	Acetone	2.7927	35.719	1145669	29.391	VV	0.14
5	4.32	Propionaldehyde	0.1989	2.544	81499	2.091	VB	0.14
6	4.95	Crotonaldehyde	0.0051	0.065	1941	0.050	BB	0.16
7	5.41	Methacrolein	0.0543	0.694	21781	0.559	BV	0.18
8	5.78	MEK & Butyraldehyde	0.5038	6.443	162325	4.164	VV	0.20
9	6.22	Benzaldehyde	0.0838	1.072	21759	0.558	VB	0.25
10	7.97	Valeraldehyde	0.0849	1.086	23826	0.611	BB	0.21
11	11.52	Hexaldehyde	0.0695	0.889	16541	0.424	BB	0.41

Total Area = 3898046

Total Height = 481241.6

Total Amount = 7.818429

130503-62628 Dup



Sample Name = 130503-62628 Dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0010.RAW

Date Taken (end) = 4/26/2013 10:36:10 AM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0010.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0010.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 10

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	2.8205	36.051	1792416	45.979	BB	0.11
2	3.21	Acetaldehyde	1.1901	15.211	623417	15.992	BB	0.12
3	3.90	Acrolein	0.0175	0.224	8368	0.215	BV	0.04
4	4.07	Acetone	2.7901	35.662	1144592	29.361	VV	0.14
5	4.32	Propionaldehyde	0.1864	2.382	76355	1.959	VB	0.14
6	4.96	Crotonaldehyde	0.0050	0.064	1910	0.049	BB	0.16
7	5.41	Methacrolein	0.0528	0.675	21186	0.543	BV	0.18
8	5.78	MEK & Butyraldehyde	0.5152	6.585	166011	4.259	VV	0.20
9	6.22	Benzaldehyde	0.0846	1.082	21965	0.563	VB	0.25
10	7.98	Valeraldehyde	0.0871	1.113	24428	0.627	BB	0.21
11	11.53	Hexaldehyde	0.0743	0.950	17686	0.454	BB	0.45

Total Area = 3898334

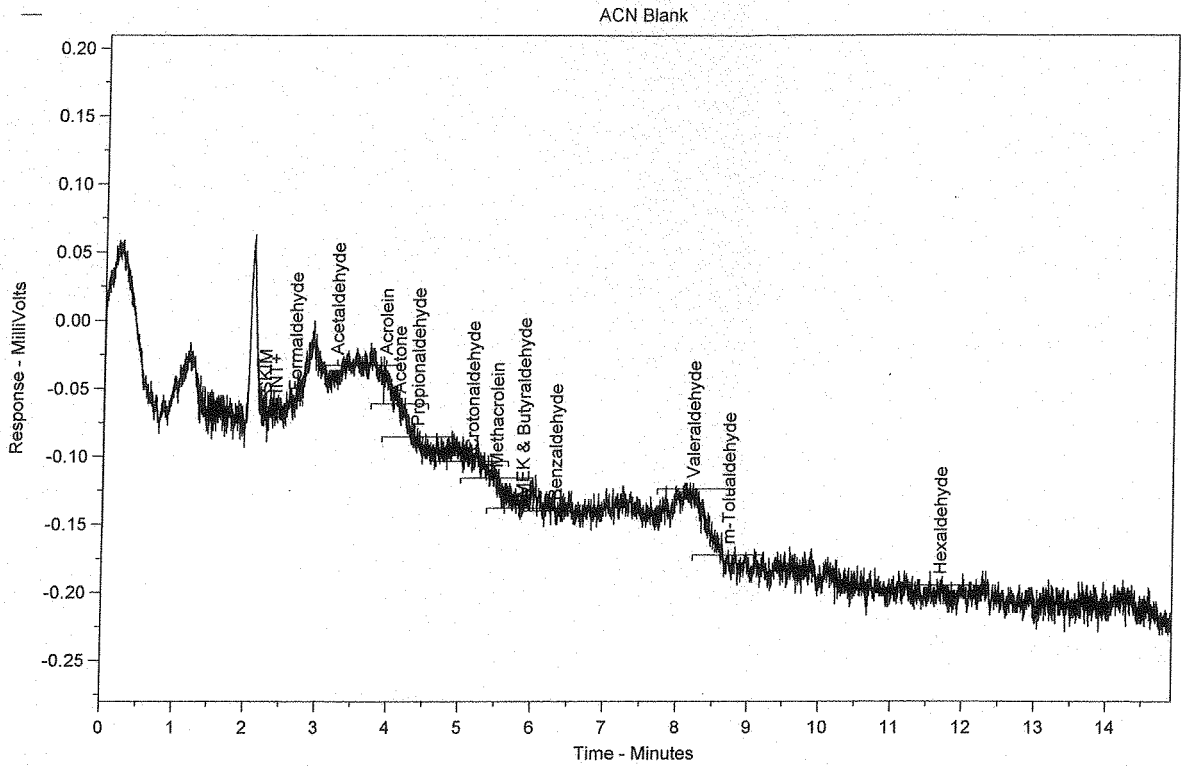
Total Height = 482521.6

Total Amount = 7.823534

MP  
04/26/13



Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0012.RAW

Date Taken (end) = 4/26/2013 11:09:21 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 12

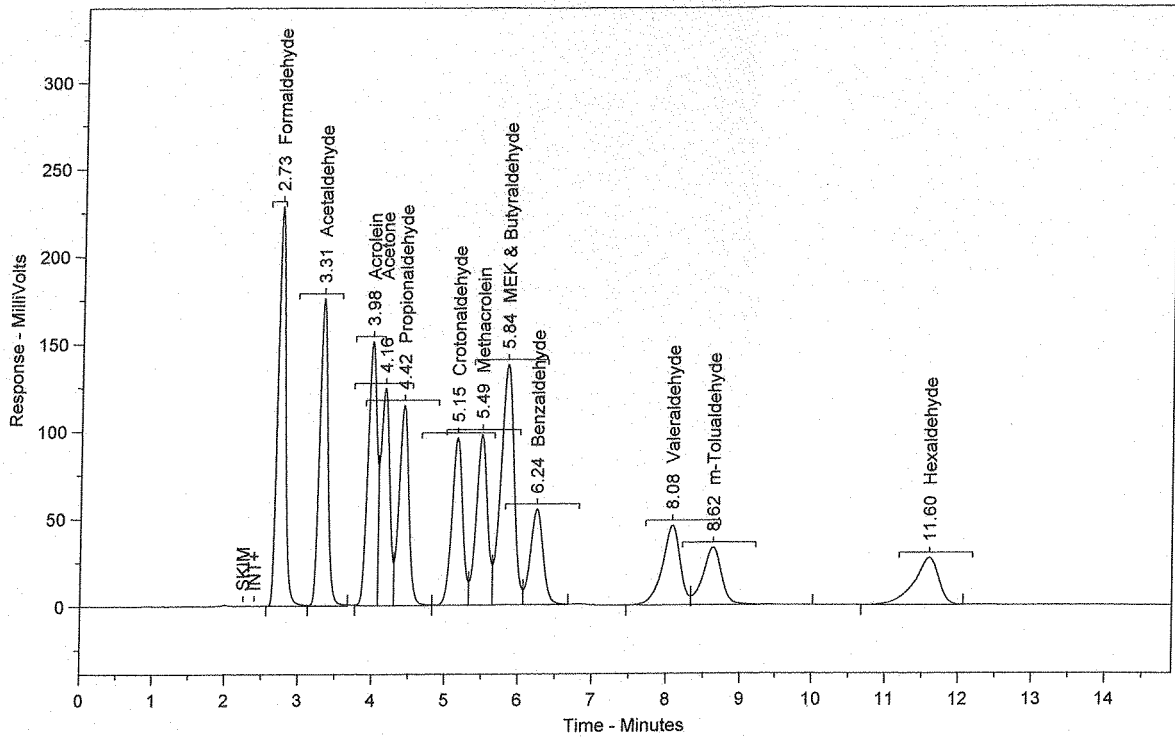
Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0013.RAW

Date Taken (end) = 4/26/2013 11:25:57 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 13

Injection Volume = 10

Dilution Factor = 1

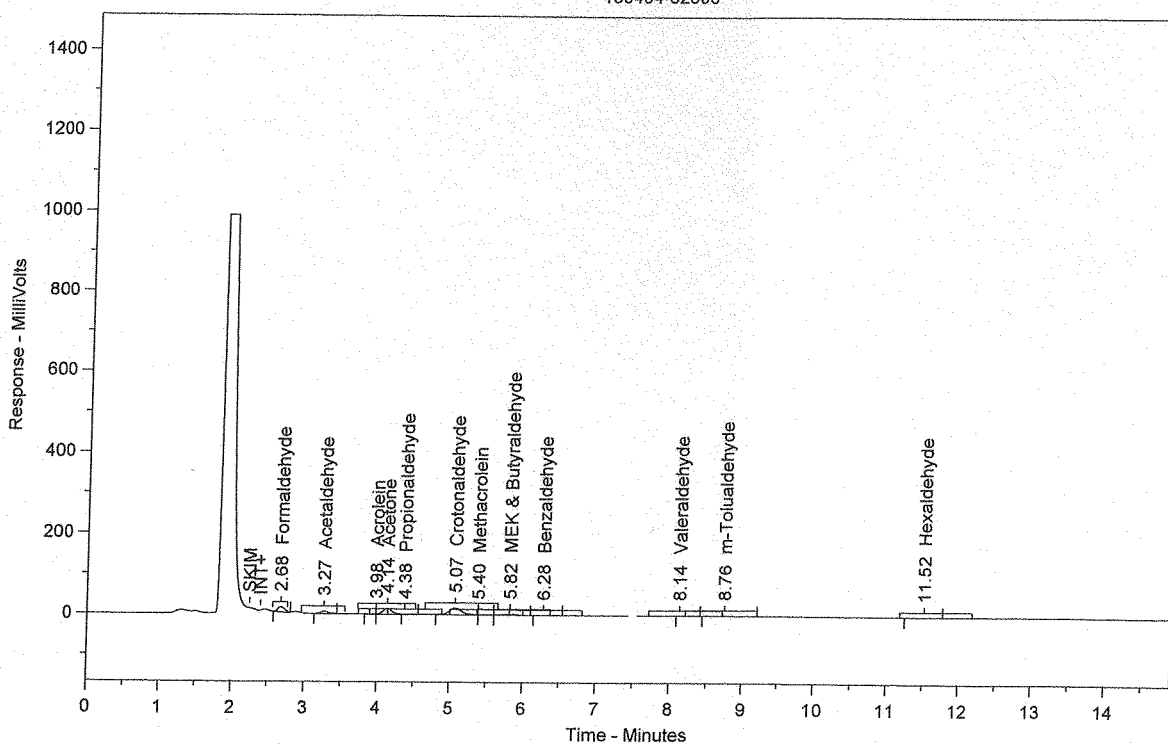
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.73	Formaldehyde	2.6168	7.699	1663004	13.035	SBB	0.11
2	3.31	Acetaldehyde	2.6362	7.756	1380945	10.824	TBB	0.12
3	3.98	Acrolein	2.6368	7.758	1259100	9.869	BV	0.16
4	4.16	Acetone	2.6359	7.755	1081337	8.476	VV	0.14
5	4.42	Propionaldehyde	2.6002	7.650	1065394	8.351	VV	0.14
6	5.15	Crotonaldehyde	2.5616	7.536	971356	7.614	VV	0.16
7	5.49	Methacrolein	2.6060	7.667	1045588	8.195	VV	0.15
8	5.84	MEK & Butyraldehyde	5.2247	15.371	1683578	13.196	VV	0.18
9	6.24	Benzaldehyde	2.5055	7.371	650249	5.097	VB	0.18
10	8.08	Valeraldehyde	2.6876	7.907	753892	5.909	BV	0.24
11	8.62	m-Tolualdehyde	2.6310	7.740	573407	4.494	VB	0.26
12	11.60	Hexaldehyde	2.6478	7.790	630282	4.940	BB	0.34

Total Area = 1.275813E+07

Total Height = 1283237

Total Amount = 33.99002

130494-62608



Sample Name = 130494-62608

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\0426\13\042613.0014.RAW

Date Taken (end) = 4/26/2013 11:42:32 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 14

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.1234	10.146	78414	15.570	BB	0.10
2	3.27	Acetaldehyde	0.0922	7.583	48309	9.593	BB	0.12
3	3.98	Acrolein	0.0030	0.246	1430	0.284	BV	0.04
4	4.14	Acetone	0.3070	25.244	125946	25.009	SBB	0.13
5	4.38	Propionaldehyde	0.0151	.245	6205	1.232	TBB	0.12
6	5.07	Crotonaldehyde	0.5298	43.561	200882	39.888	BV	0.18
7	5.40	Methacrolein	0.0151	1.239	6044	1.200	VV	0.13
8	5.82	MEK & Butyraldehyde	0.0688	5.654	22156	4.399	VB	0.19
9	6.28	Benzaldehyde	0.0063	0.521	1644	0.327	BB	0.26
10	8.14	Valeraldehyde	0.0053	0.440	1499	0.298	BB	0.22
11	8.76	m-Tolualdehyde	0.0423	3.476	9214	1.830	BB	0.27
12	11.52	Hexaldehyde	0.0078	0.645	1868	0.371	BB	0.35

Total Area = 503611.2

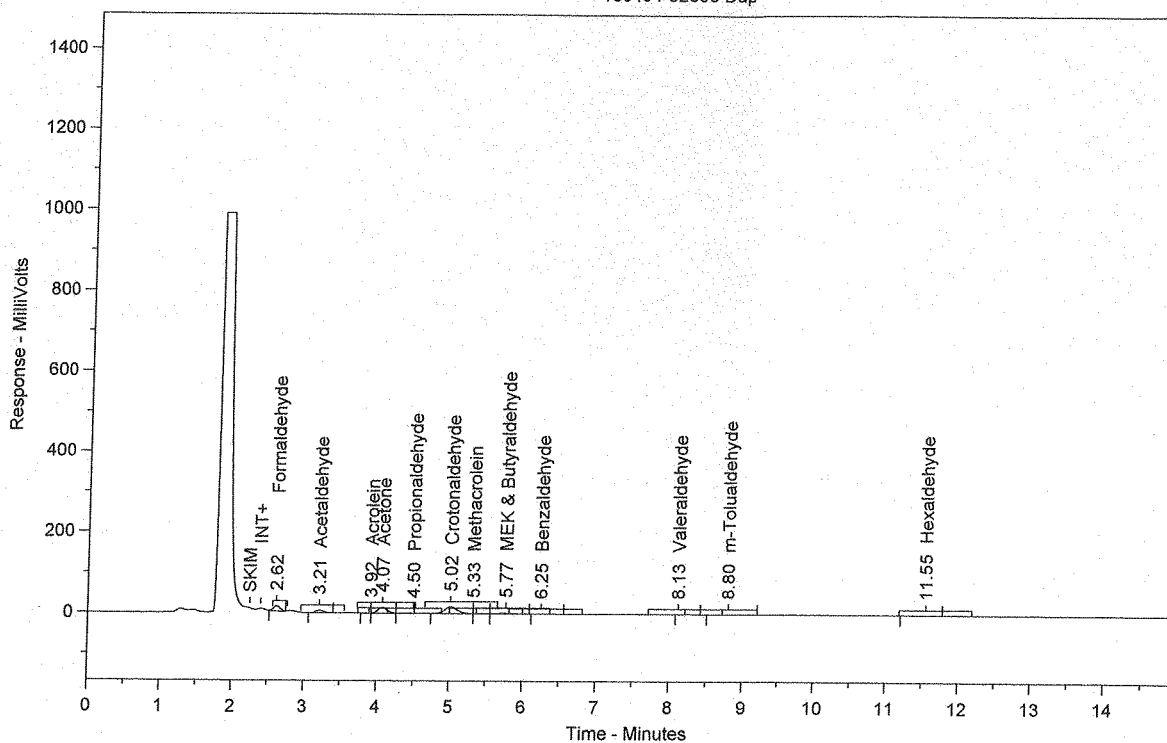
Total Height = 53376.66

Total Amount = 1.216134

HP  
04/26/13

Chrom Perfect Chromatogram Report

130494-62608 Dup



Sample Name = 130494-62608 Dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0015.RAW

Date Taken (end) = 4/26/2013 11:59:07 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 15

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	0.1213	10.088	77088	15.489	BB	0.10
2	3.21	Acetaldehyde	0.0920	7.655	48220	9.689	BB	0.12
3	3.92	Acrolein	0.0028	0.231	1329	0.267	BV	0.04
4	4.07	Acetone	0.3016	25.085	123742	24.863	VV	0.13
5	4.50	Propionaldehyde	0.0129	1.076	5303	1.066	VB N	0.12
6	5.02	Crotonaldehyde	0.5244	43.614	198868	39.958	BV	0.18
7	5.33	Methacrolein	0.0150	1.252	6038	1.213	VV	0.14
8	5.77	MEK & Butyraldehyde	0.0722	6.001	23252	4.672	VB	0.20
9	6.25	Benzaldehyde	0.0063	0.522	1628	0.327	BB	0.27
10	8.13	Valeraldehyde	0.0055	0.459	1548	0.311	BB	0.26
11	8.80	m-Tolualdehyde	0.0410	3.413	8945	1.797	BB	0.28
12	11.55	Hexaldehyde	0.0073	0.604	1729	0.347	BB	0.31

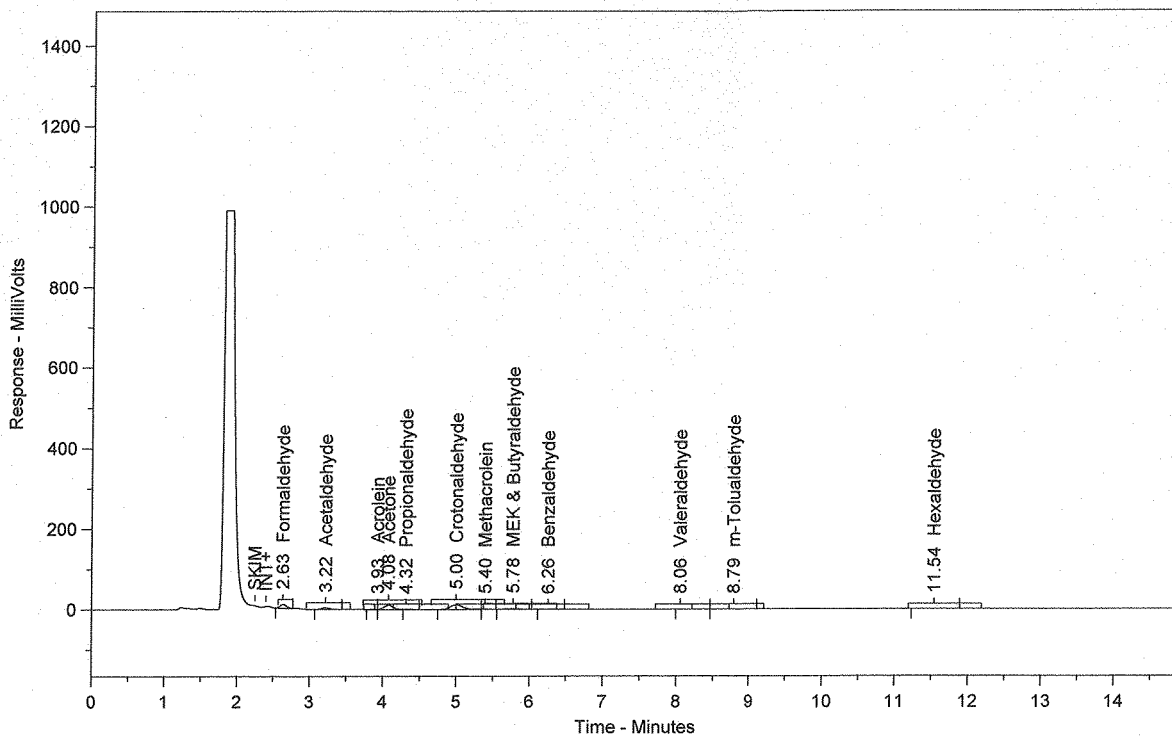
Total Area = 497689.3

Total Height = 52096.48

Total Amount = 1.202459

Chrom Perfect Chromatogram Report

130494-62609



Sample Name = 130494-62609

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0016.RAW

Date Taken (end) = 4/26/2013 12:15:43 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 16

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	0.0900	10.479	57196	16.072	BB	0.11
2	3.22	Acetaldehyde	0.0631	7.347	33055	9.288	BB	0.12
3	3.93	Acrolein	0.0023	0.264	1084	0.305	BV	0.03
4	4.08	Acetone	0.2327	27.091	95452	26.822	SBB	0.13
5	4.32	Propionaldehyde	0.0085	0.993	3493	0.982	TBB	0.13
6	5.00	Crotonaldehyde	0.3637	42.345	137910	38.753	BV	0.18
7	5.40	Methacrolein	0.0047	0.544	1875	0.527	VB	0.12
8	5.78	MEK & Butyraldehyde	0.0415	4.834	13378	3.759	BB	0.19
9	6.26	Benzaldehyde	0.0039	0.452	1007	0.283	BB	0.24
10	8.06	Valeraldehyde	0.0113	1.319	3178	0.893	BV	0.33
11	8.79	m-Tolualdehyde	0.0307	3.573	6687	1.879	VB	0.28
12	11.54	Hexaldehyde	0.0065	0.760	1553	0.436	BB	0.40

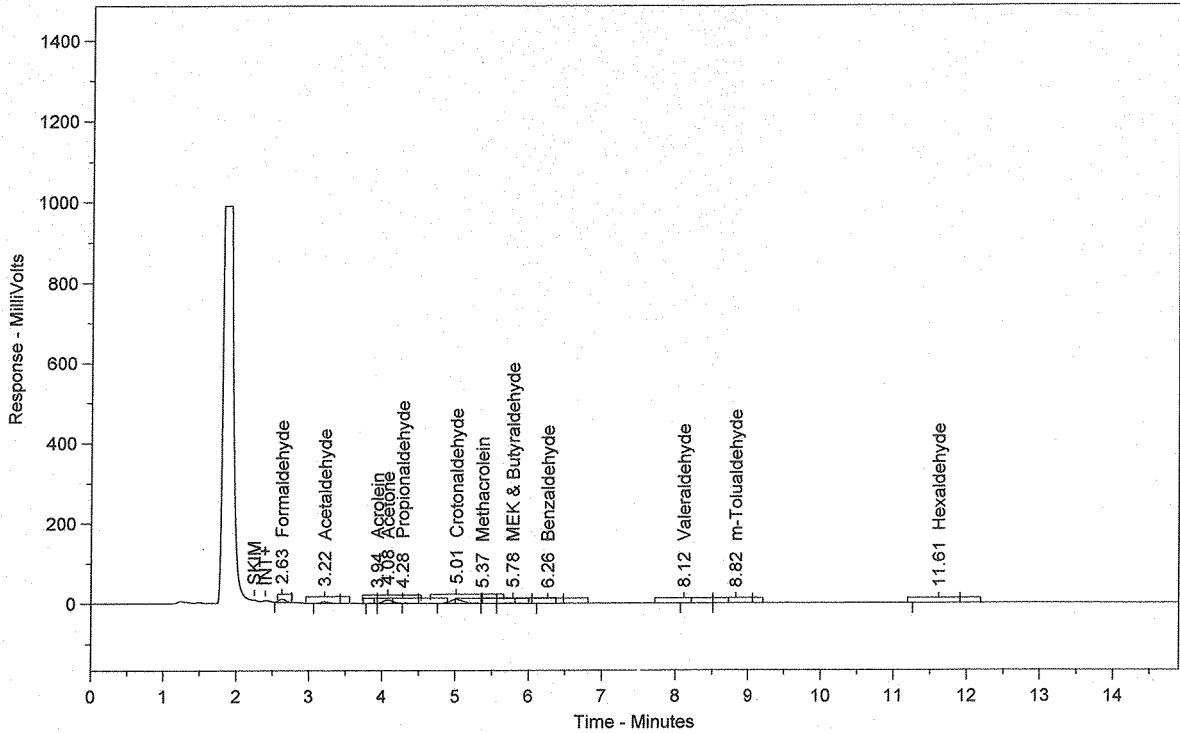
Total Area = 355869.5

Total Height = 38773

Total Amount = 0.8588708

Chrom Perfect Chromatogram Report

1304 I4-62610



Sample Name = 130494-62610

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0017.RAW

Date Taken (end) = 4/26/2013 12:32:18 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 17

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	0.0776	10.446	49342	15.986	BB	0.11
2	3.22	Acetaldehyde	0.0584	7.855	30585	9.909	BB	0.12
3	3.94	Acrolein	0.0022	0.301	1067	0.346	BV	0.02
4	4.08	Acetone	0.1904	25.614	78105	25.305	SBB	0.13
5	4.28	Propionaldehyde	0.0056	0.758	2308	0.748	TBB	0.12
6	5.01	Crotonaldehyde	0.3217	43.279	121986	39.522	BV	0.18
7	5.37	Methacrolein	0.0068	0.909	2712	0.879	VV	0.12
8	5.78	MEK & Butyraldehyde	0.0401	5.394	12919	4.186	VB	0.20
9	6.26	Benzaldehyde	0.0041	0.551	1063	0.344	BB	0.27
10	8.12	Valeraldehyde	0.0075	1.008	2101	0.681	BV	0.28
11	8.82	m-Tolualdehyde	0.0205	2.752	4458	1.444	VB	0.27
12	11.61	Hexaldehyde	0.0084	1.135	2009	0.651	BB	0.54

Total Area = 308654.2

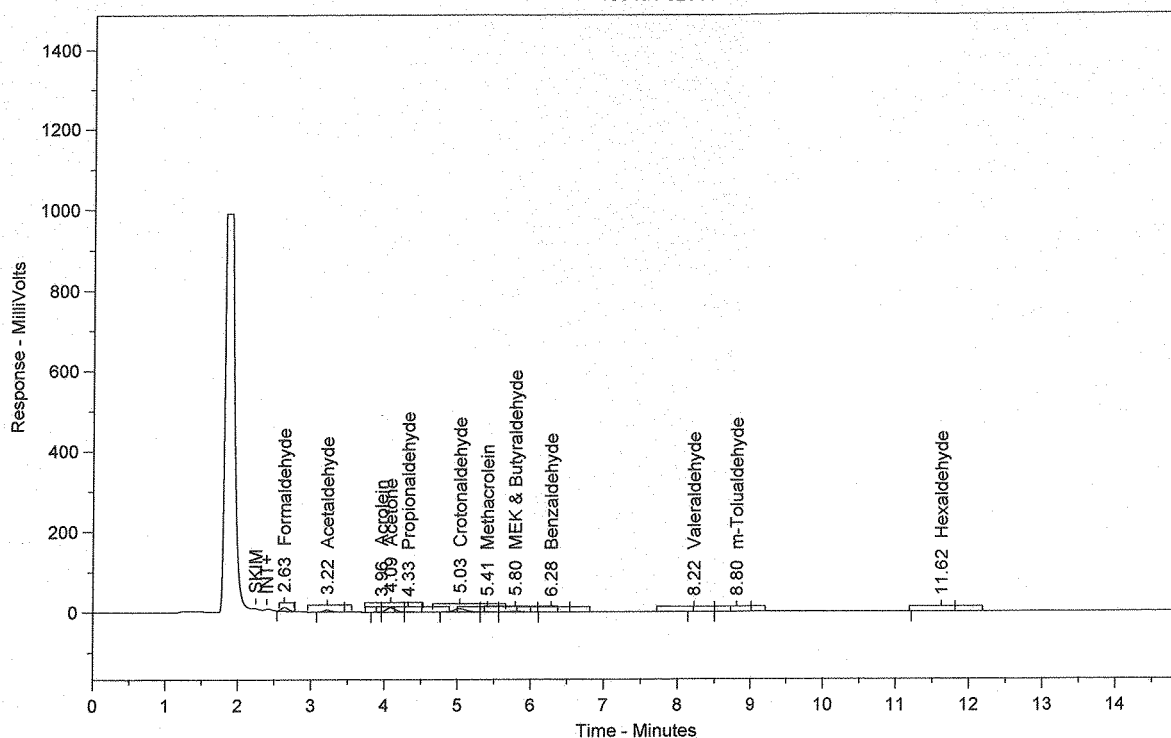
Total Height = 33126.9

Total Amount = 0.7433093

HP  
04/26/13

Chrom Perfect Chromatogram Report

130494-62611



Sample Name = 130494-62611

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0018.RAW

Date Taken (end) = 4/26/2013 12:48:54 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 18

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	0.0907	11.784	57654	17.773	BB	0.11
2	3.22	Acetaldehyde	0.0681	8.844	35668	10.996	BB	0.12
3	3.96	Acrolein	0.0034	0.448	1647	0.508	BV	0.02
4	4.09	Acetone	0.2335	30.325	95772	29.524	VV	0.13
5	4.33	Propionaldehyde	0.0095	1.237	3902	1.203	VB	0.14
6	5.03	Crotonaldehyde	0.2484	32.267	94194	29.038	BV	0.18
7	5.41	Methacrolein	0.0127	1.653	5105	1.574	VV	0.17
8	5.80	MEK & Butyraldehyde	0.0695	9.024	22386	6.901	VB	0.19
9	6.28	Benzaldehyde	0.0040	0.522	1043	0.321	BB	0.27
10	8.22	Valeraldehyde	0.0057	0.737	1592	0.491	BV	0.21
11	8.80	m-Tolualdehyde	0.0182	2.364	3967	1.223	VB	0.25
12	11.62	Hexaldehyde	0.0061	0.795	1457	0.449	BB	0.42

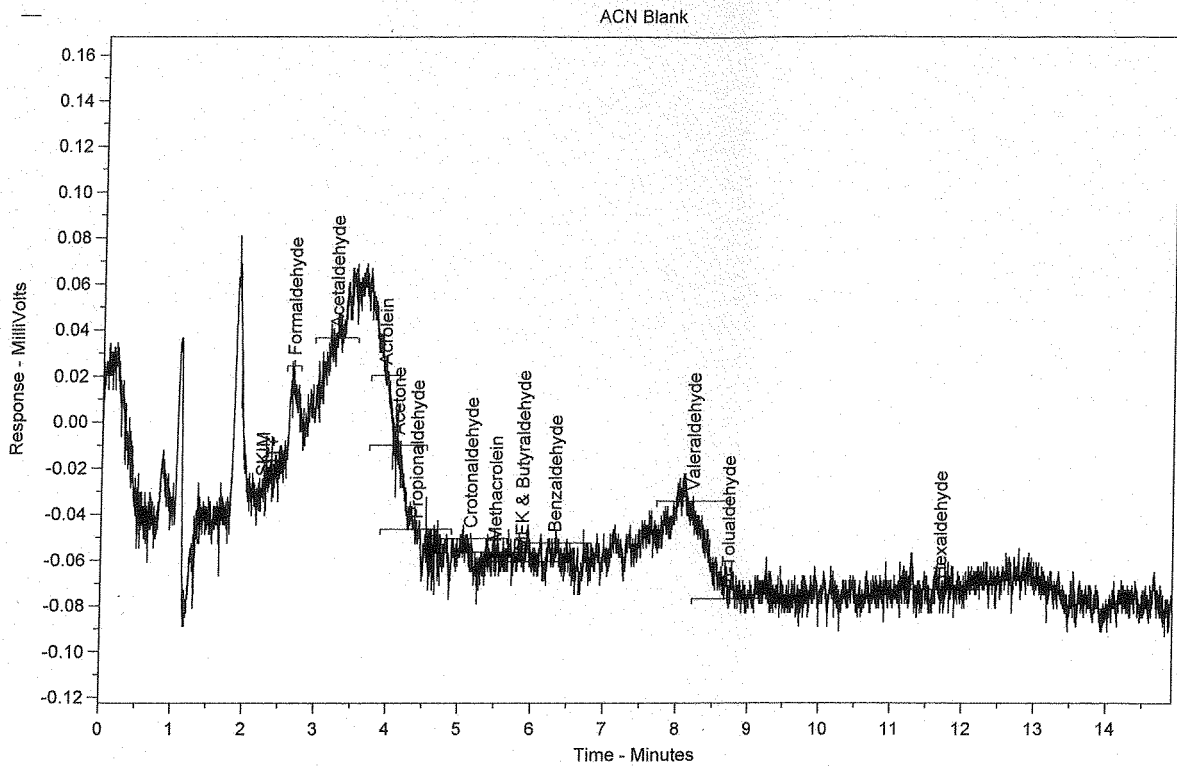
Total Area = 324385.5

Total Height = 36190.42

Total Amount = 0.7698472

HP  
04/26/13

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0019.RAW

Date Taken (end) = 4/26/2013 1:05:33 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 19

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
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Total Area = 0

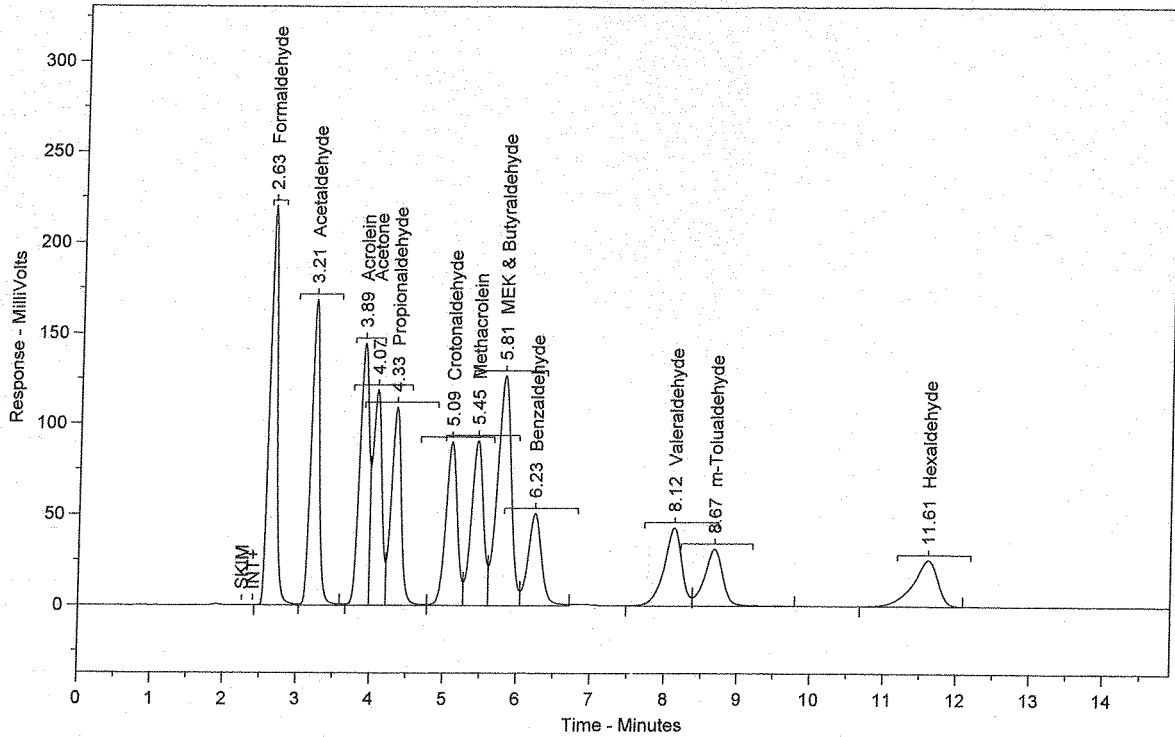
Total Height = 0

Total Amount = 0



Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\042613\042613.0020.RAW

Date Taken (end) = 4/26/2013 1:22:08 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 20

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	2.5297	7.649	1607642	12.949	SBB	0.11
2	3.21	Acetaldehyde	2.5522	7.717	1336953	10.769	TBV	0.12
3	3.89	Acrolein	2.5590	7.738	1221962	9.842	TVV	0.16
4	4.07	Acetone	2.5699	7.771	1054282	8.492	TVV	0.15
5	4.33	Propionaldehyde	2.5440	7.692	1042342	8.396	TVV	0.15
6	5.09	Crotonaldehyde	2.5386	7.676	962615	7.754	TVV	0.16
7	5.45	Methacrolein	2.5498	7.710	1023043	8.240	TVV	0.16
8	5.81	MEK & Butyraldehyde	5.0957	15.408	1642004	13.226	TVV	0.19
9	6.23	Benzaldehyde	2.5075	7.582	650786	5.242	TVB	0.19
10	8.12	Valeraldehyde	2.5635	7.751	719089	5.792	BV	0.24
11	8.67	m-Tolualdehyde	2.5096	7.588	546945	4.405	VV	0.26
12	11.61	Hexaldehyde	2.5523	7.717	607543	4.894	VB	0.34

Total Area = 1.241521E+07

Total Height = 1219009

Total Amount = 33.07174

File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\042613 (TO-11).SEQ

File Date = 4/26/2013 7:16:09 AM

Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	042613.0001.raw	011613 TO-11A.MET	ACN Blank	1	1
2	042613.0002.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	2	1
3	042613.0003.raw	011613 TO-11A.MET	SS 1.25 ppm (PS080412-01)	3	1
4	042613.0004.raw	011613 TO-11A.MET	TO-11 Method Blank	4	1
5	042613.0005.raw	011613 TO-11A.MET	LCS Blank	5	1
6	042613.0006.raw	011613 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	6	1
7	042613.0007.raw	011613 TO-11A.MET	MS 130503-62628 1.25 ppm [(PS011613-01x2]	7	1
8	042613.0008.raw	011613 TO-11A.MET	MSD 130503-62628 1.25 ppm [(PS011613-01x2]	8	1
9	042613.0009.raw	011613 TO-11A.MET	130503-62628	9	1
10	042613.0010.raw	011613 TO-11A.MET	130503-62628 Dup	10	1
11	042613.0011.raw	011613 TO-11A.MET	130504-62629	11	1
12	042613.0012.raw	011613 TO-11A.MET	ACN Blank	12	1
13	042613.0013.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	042613.0014.raw	011613 TO-11A.MET	130494-62608	14	1
15	042613.0015.raw	011613 TO-11A.MET	130494-62608 Dup	15	1
16	042613.0016.raw	011613 TO-11A.MET	130494-62609	16	1
17	042613.0017.raw	011613 TO-11A.MET	130494-62610	17	1
18	042613.0018.raw	011613 TO-11A.MET	130494-62611	18	1
19	042613.0019.raw	011613 TO-11A.MET	ACN Blank	19	1
20	042613.0020.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	20	1