Atmospheric Analysis & Consulting, Inc.

Client	: SWAPE
Client Project Name	: Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No.	: NA
AAC Project No.	: 130978
Reporting Date	: 07/30/2013

On July 26, 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 Sample ID	AAC Sample ID
U-1 K DNPH	130978-64927
D-1 W8 DNPH	130978-64928
D-2 W6E DNPH	130978-64929
D-3 W6 DNPH	130978-64930

TO-11A - HPLC/UV analysis - A 10µL 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 68 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **130978** **Received By: J. Zachman**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
7/26/2013 0950	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 K DNPH	Tube	7/24/2013	Client	64927	TO-11A
7/26/2013 0950	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W8 DNPH	Tube	7/24/2013	Client	64928	TO-11A
7/26/2013 0950	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 W6E DNPH	Tube	7/24/2013	Client	64929	TO-11A
7/26/2013 0950	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-3 W6 DNPH	Tube	7/24/2013	Client	64930	TO-11A

TURN AROUND TIME: Normal (10days)

Lab Due Date: 8/2/2013

Total Samples: 4

REMARKS:

Samples received at 7.1*C. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."

AAC#130978

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE	Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011
Project Manager: PAUL ROSENFELD, PH.D.	Date: **July 24th, 2013**
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401	Page 1 of 1
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT	
Sampled By: John Blank	Sampler Signature: John A Blank

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	Sample Volume		
64927	U-1 K	DNPH	Tube	July 24th	4 Hr			X											Tube #	4440601056	247.68
64928	D-1 W8	DNPH	Tube	July 24th	4 Hr			X											Tube #	4440601048	244.68
64929	D-2 W6E	DNPH	Tube	July 24th	4 Hr			X											Tube #	4440601368	250.44
64930	D-3 W6	DNPH	Tube	July 24th	4 Hr			X											Tube #	4440601049	245.76

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: John Blank / John A Blank	Date: July 24th, 2013	12 Noon	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 7/26/13	Time: 0950

7.1°C

AAC# 130978

AIR SAMPLING PUMP CALIBRATION LOG

Bridgeton Sanitary Landfill Air Quality Assessment

COMPLETED BY: John Blank

DATE: July 24th 27th, 2013

PAGE: 1 of 1

CALIBRATION INSTRUMENT : ***Biose Defender510***

INITIAL PUMP SETUP (PRE-SAMPLING FLOW CHECK)

Sample ID	Analyte	SKC Tube ID	Air Pump Serial No.	START		END		Total Volume
				Flow Rate	Start Time	Flow Rate	Stop Time	
e.g. acetaldehyde	e.g. acetaldehyde	e.g. 226-120	e.g. 123456	(L/min)	(24 Hour)	(L/min)	(24 Hour)	Liters
U-1 K	Aldehydes	44406011056	71526	1.029	11:15:00	1.035	14:35:00	247.68
D-1 W8	Aldehydes	4440601048	67385	1.018	11:35:00	1.021	14:25:00	244.68
D-2 W6E	Aldehydes	4440601368	67992	1.029	11:55:00	1.058	13:25:00	250.44
D-3 W6	Aldehydes	4440601049	67835	1.02	12:05:00	1.028	14:10:00	245.76

NOTES / LOCATION REFERENCES

TUBES:

ANALYTE	SKC TUBE ID
Aldehydes	226-120
Amines	226-10
Ammonia	226-29
Carboxylic Acids	226-55

SKC TUBE ID
226-10-03
226-28
226-17-1A
226-80

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. : 130978
Analyst : HP/EG
Units : ppbv

Sampling Date (s) : 07/24/2013
Receiving Date : 07/26/2013
Analysis Date : 07/29/2013
Reporting Date : 07/30/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 K DNPH	130978-64927	0.945	0.340	<SRL	1.40	<SRL	0.343	<SRL	0.224	<SRL	<SRL	<SRL	<SRL
SRL		0.247	0.168	0.132	0.127	0.127	0.106	0.106	0.103	0.070	0.086	0.062	0.074
D-1 W8 DNPH	130978-64928	1.12	0.474	<SRL	1.57	<SRL	0.354	<SRL	0.264	<SRL	<SRL	0.070	<SRL
SRL		0.250	0.170	0.134	0.129	0.129	0.107	0.107	0.104	0.071	0.087	0.062	0.075
D-2 W6E DNPH	130978-64929	0.369	0.376	<SRL	1.58	<SRL	<SRL	<SRL	0.252	<SRL	<SRL	<SRL	<SRL
SRL		0.244	0.166	0.131	0.126	0.126	0.104	0.104	0.102	0.069	0.085	0.061	0.073
D-3 W6 DNPH	130978-64930	<SRL	0.321	<SRL	1.89	<SRL	0.250	<SRL	0.278	<SRL	<SRL	<SRL	<SRL
SRL		0.248	0.169	0.133	0.128	0.128	0.106	0.106	0.103	0.070	0.087	0.062	0.074

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

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

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. : 130978
Analyst : HP/EG
Units : ug/m^3

Sampling Date (s) : 07/24/2013
Receiving Date : 07/26/2013
Analysis Date : 07/29/2013
Reporting Date : 07/30/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 K DNPH	130978-64927	1.16	0.613	<SRL	3.32	<SRL	0.984	<SRL	0.660	<SRL	<SRL	<SRL	<SRL
SRL		0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303
D-1 W8 DNPH	130978-64928	1.38	0.855	<SRL	3.74	<SRL	1.01	<SRL	0.777	<SRL	<SRL	0.343	<SRL
SRL		0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307
D-2 W6E DNPH	130978-64929	0.453	0.678	<SRL	3.75	<SRL	<SRL	<SRL	0.744	<SRL	<SRL	<SRL	<SRL
SRL		0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
D-3 W6 DNPH	130978-64930	<SRL	0.579	<SRL	4.48	<SRL	0.715	<SRL	0.820	<SRL	<SRL	<SRL	<SRL
SRL		0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305

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

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

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. : 130978
Analyst : HP/EG
Units : ug/sample

Sampling Date (s) : 07/24/2013
Receiving Date : 07/26/2013
Analysis Date : 07/29/2013
Reporting Date : 07/30/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 K DNPH	130978-64927	0.287	0.152	<SRL	0.822	<SRL	0.244	<SRL	0.164	<SRL	<SRL	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-1 W8 DNPH	130978-64928	0.337	0.209	<SRL	0.914	<SRL	0.248	<SRL	0.190	<SRL	<SRL	0.084	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-2 W6E DNPH	130978-64929	0.113	0.170	<SRL	0.939	<SRL	<SRL	<SRL	0.186	<SRL	<SRL	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-3 W6 DNPH	130978-64930	<SRL	0.142	<SRL	1.10	<SRL	0.176	<SRL	0.202	<SRL	<SRL	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075

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

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Amount

File Name	Formalde	Acetaldel	Acrolein	Acetone	Propional	Crotonalc	Methacro	MEK & E	Benzaldel	Valeralde	m-Tolual	Hexaldeh	Sample name
072913.0043.BND	0.0958	0.0506	NP	0.2740	0.0203	0.0812	0.0231	0.0545	0.0041	0.0169	0.0230	0.0109	130978-64927
072913.0044.BND	0.1123	0.0697	NP	0.3047	0.0237	0.0827	0.0232	0.0634	0.0039	0.0246	0.0280	0.0136	130978-64928
072913.0047.BND	0.0378	0.0566	NP	0.313	0.0157	0.0105	0.0105	0.0621	0.0045	0.0199	NP	0.0155	130978-64929
072913.0049.BND	0.0207	0.0474	NP	0.3673	0.0208	0.0586	0.0171	0.0672	NP	0.0159	0.0212	0.0084	130978-64930

QA/QC Summary

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

TO-11A

HPLC Calibration Verification of the 06/11/2013 Calibration

Analysis Date : 07/29/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Opening CCV

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	2.65	2.68	2.67	2.66	2.71	2.67	2.68	5.34	2.69	2.67	2.66	2.68
Accuracy (%)*	106	107	107	106	108	107	107	107	108	107	106	107

Continuing CCV

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	2.70	2.71	2.73	2.70	2.74	2.72	2.72	5.45	2.72	2.70	2.69	2.72
Accuracy (%)*	108	108	109	108	110	109	109	109	109	108	108	109

Continuing CCV

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	2.66	2.67	2.69	2.67	2.70	2.67	2.69	5.38	2.70	2.69	2.68	2.66
Accuracy (%)*	106	107	108	107	108	107	108	108	108	108	107	106

Continuing CCV

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	2.66	2.64	2.65	2.63	2.68	2.73	2.68	5.29	2.65	2.63	2.62	2.63
Accuracy (%)*	106	106	106	105	107	109	107	106	106	105	105	105

Continuing CCV

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	2.72	2.73	2.74	2.74	2.72	2.73	2.75	5.45	2.69	2.74	2.69	2.73
Accuracy (%)*	109	109	110	110	109	109	110	109	108	110	108	109

ClosingCCV

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	2.63	2.64	2.68	2.63	2.64	2.65	2.64	5.33	2.61	2.66	2.63	2.65
Accuracy (%)*	105	106	107	105	106	106	106	107	104	106	105	106

Second Source

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	2.73	2.73	2.70	2.73	2.67	2.71	2.74	5.49	2.69	2.74	2.70	2.74
Accuracy (%)*	109	109	108	109	107	108	110	110	108	110	108	110

*Must be 100 ± 10%

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

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

Analysis Date : 07/29/2013 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)	0.397	0.375	0.387	0.412	0.385	0.377	0.419	0.741	0.381	0.407	0.385	0.385
Spike Recovery (%)*	105	99.0	102	109	102	99.6	111	97.9	101	107	102	102
Laboratory Control Spike 2												
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)	0.384	0.370	0.388	0.384	0.381	0.374	0.420	0.695	0.367	0.379	0.388	0.379
Spike Recovery (%)*	101	97.5	102	101	101	98.6	111	91.8	96.8	100	102	100

*Must be 100 ± 15%

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report
TO-11A
Matrix Spike Analysis

Analysis Date : 07/29/2013 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)*
Sample ID	130935-64678											
Sample Concentration (ug/mL)	1.73	1.02	0.030	0.295	0.194	0.155	0.076	0.152	0.093	0.161	0.022	0.097
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)	3.03	2.32	1.35	1.52	1.48	1.45	1.52	2.51	1.38	1.46	1.32	1.41
Duplicate Spiked Sample Concentration (ug/mL)	3.02	2.32	1.35	1.52	1.49	1.46	1.52	2.51	1.38	1.46	1.35	1.43
Spike Recovery (%)*	104	104	106	98.0	103	104	116	94.3	103	104	104	105
Dulicate Spike Recovery (%)*	103	104	106	98.0	104	104	116	94.3	103	104	106	107
RPD**	0.3	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	2.2	1.4
Sample ID	130947-64741											
Sample Concentration (ug/mL)	0.048	0.031	0.000	0.155	0.008	0.009	0.011	0.032	0.002	0.017	0.007	0.006
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)	1.37	1.32	1.33	1.45	1.31	1.32	1.46	2.50	1.31	1.33	1.32	1.31
Duplicate Spiked Sample Concentration (ug/mL)	1.37	1.32	1.33	1.46	1.31	1.32	1.45	2.51	1.32	1.33	1.33	1.32
Spike Recovery (%)*	106	103	106	104	104	105	116	98.7	105	105	105	104
Dulicate Spike Recovery (%)*	106	103	106	104	104	105	115	99.1	105	105	106	105
RPD**	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.4	0.8	0.0	0.8	0.8

*Must be 100± 25%
** Must be ≤ 25%

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Quality Control/Quality Assurance Report
TO-11A
Duplicate Analysis

Analysis Date : 07/29/2013
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	130935-64678											
Sample Concentration (ug/mL)	3.46	2.03	0.060	0.591	0.388	0.310	0.152	0.304	0.186	0.321	0.044	0.194
Duplicate Sample Concentration (ug/mL)	3.39	1.98	0.057	0.577	0.379	0.306	0.150	0.301	0.182	0.328	0.045	0.193
RPD**	1.9	2.8	4.3	2.3	2.2	1.3	1.5	1.2	2.1	2.0	2.0	0.6
Sample ID	130975-64924											
Sample Concentration (ug/mL)	<RL	<RL	ND	0.145	ND	ND	ND	0.056	<RL	<RL	0.034	<RL
Duplicate Sample Concentration (ug/mL)	<RL	<RL	ND	0.145	ND	ND	ND	0.060	<RL	<RL	0.032	<RL
RPD**	NA	NA	NA	0.3	NA	NA	NA	6.7	NA	NA	5.8	NA
Sample ID	130975-64923											
Sample Concentration (ug/mL)	0.118	0.075	<RL	0.307	<RL	0.025	<RL	0.085	<RL	0.032	0.037	<RL
Duplicate Sample Concentration (ug/mL)	0.114	0.072	<RL	0.300	<RL	0.025	<RL	0.086	<RL	0.034	0.037	<RL
RPD**	3.1	3.4	NA	2.5	NA	1.2	NA	2.0	NA	5.2	1.4	NA
Sample ID	130947-64741											
Sample Concentration (ug/mL)	0.096	0.062	ND	0.309	<RL	<RL	<RL	0.065	<RL	0.035	<RL	<RL
Duplicate Sample Concentration (ug/mL)	0.094	0.061	ND	0.306	<RL	<RL	<RL	0.068	<RL	0.035	<RL	<RL
RPD**	2.2	2.1	NA	1.0	NA	NA	NA	4.1	NA	1.4	NA	NA
Sample ID	130978-64929											
Sample Concentration (ug/mL)	0.038	0.057	ND	0.313	<RL	<RL	<RL	0.062	<RL	<RL	ND	<RL
Duplicate Sample Concentration (ug/mL)	0.037	0.056	ND	0.314	<RL	<RL	<RL	0.065	<RL	<RL	ND	<RL
RPD**	3.0	0.5	NA	0.2	NA	NA	NA	4.6	NA	NA	NA	NA

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

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Quality Control/Quality Assurance Report

TO-11A

System and Method Blank Analysis

Analysis Date : 07/29/2013
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)*
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
Continuing 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
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

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Calibration Summary

File Name:	C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Version:	6
Creator:	EG/HP
Description:	EPA TO-11

External standard calibration
No injection volume correction
No sample weight correction

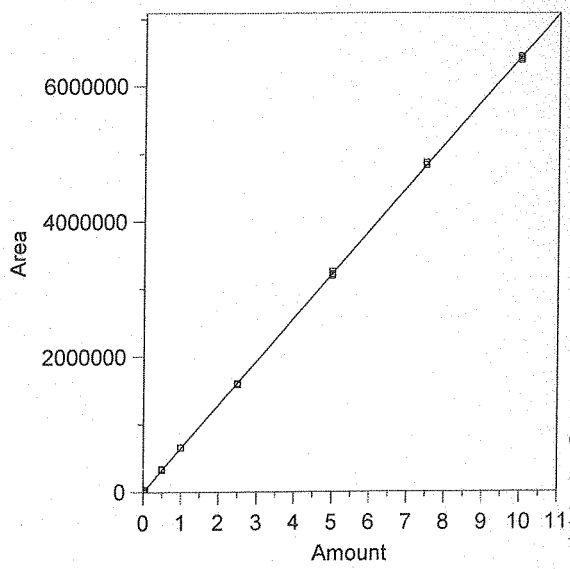
Area reject threshold:	1000
Reference peak area reject threshold:	1000
Amount units:	ug/ml

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:	2.691 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

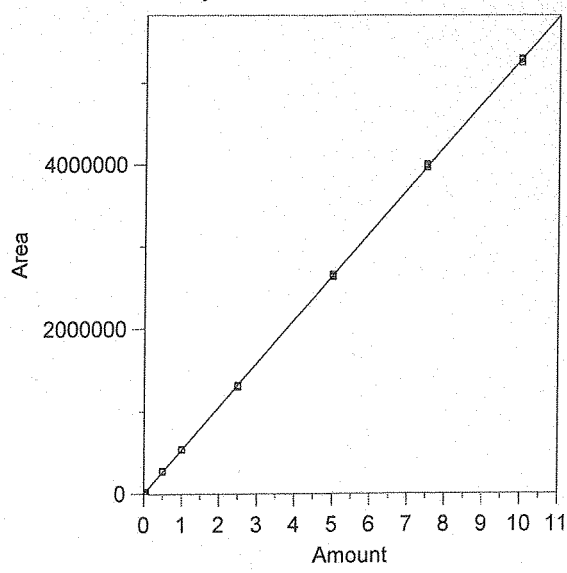
$Y = 643471.9 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999344
Average error:	1.932%
Average CF:	653816.2
RSD:	2.187%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	3408.358	681671.6	5.937	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	3325.732	665146.4	3.368	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	3366.37	673274.1	4.631	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	16194.19	647767.6	0.668	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	16179.21	647168.4	0.574	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	16232.13	649285.2	0.903	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	33956.52	679130.4	5.542	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	33691.46	673829.2	4.718	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	33082.47	661649.4	2.825	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	342894.1	685788.2	6.576	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	326442.5	652885	1.463	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	328901	657802	2.227	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	659323.3	659323.3	2.463	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	652994.7	652994.7	1.480	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	653589.6	653589.6	1.572	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1593441	637376.4	-0.947	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1584858	633943.2	-1.481	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1606654	642661.6	-0.126	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	3196329	639265.8	-0.654	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	3251038	650207.6	1.047	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	3213737	642747.4	-0.113	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	4829078	643877.1	0.063	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	4862793	648372.4	0.762	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	4865866	648782.1	0.825	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	6411879	641187.9	-0.355	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	6443770	644377	0.141	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	6389328	638932.8	-0.705	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

2 Acetaldehyde



Expected retention time: 3.293 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

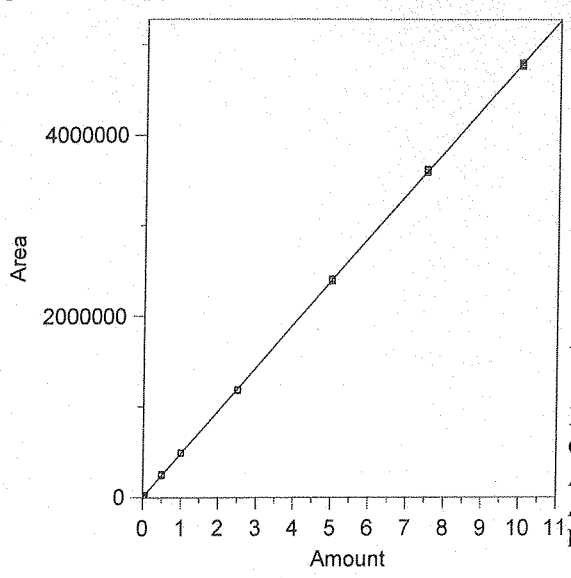
Single peak quantification by area

Y = 528411.2 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999362
Average error: 1.513%
Average CF: 534461.4
RSD: 1.856%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2781.029	556205.8	5.260	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2639.74	527948	-0.088	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2713.861	542772.3	2.718	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	13324.46	532978.4	0.864	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	13196.94	527877.6	-0.101	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	13319.8	532792	0.829	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	27360.74	547214.8	3.559	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	27153.9	543078	2.776	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	26813.58	536271.6	1.488	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	281357.4	562714.8	6.492	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	269068.5	538137	1.841	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	269886.8	539773.6	2.150	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	541849.3	541849.3	2.543	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	535548.3	535548.3	1.351	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	536037.3	536037.3	1.443	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1304421	521768.4	-1.257	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1298271	519308.4	-1.723	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1316882	526752.8	-0.314	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2629002	525800.4	-0.494	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2663350	532670	0.806	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2644688	528937.6	0.100	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3962025	528270	-0.027	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3985977	531463.6	0.578	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	4000077	533343.6	0.933	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	5275343	527534.3	-0.166	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	5292054	529205.4	0.150	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	5242042	524204.2	-0.796	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

3 Acrolein



Expected retention time: 3.986 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

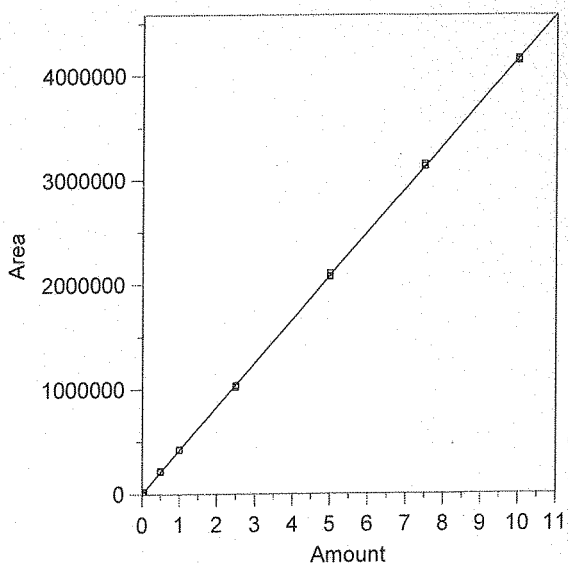
Single peak quantification by area

$Y = 479129.3\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999534
Average error: 1.520%
Average CF: 483677.6
RSD: 1.887%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2333.751	466750.2	-2.584	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2468.499	493699.8	3.041	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2507.324	501464.8	4.662	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	11981.09	479243.6	0.024	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	12224.04	488961.6	2.052	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	11986.11	479444.4	0.066	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	24721.62	494432.4	3.194	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	24405.32	488106.4	1.874	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	24448.33	488966.6	2.053	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	254413	508826	6.198	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	242138.8	484277.6	1.075	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	244413.3	488826.6	2.024	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	490244.2	490244.2	2.320	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	484969.3	484969.3	1.219	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	484927.5	484927.5	1.210	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1183948	473579.2	-1.158	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1176976	470790.4	-1.740	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1188060	475224	-0.815	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2384550	476910	-0.463	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2408812	481762.4	0.550	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2403943	480788.6	0.346	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3586781	478237.5	-0.186	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3607897	481052.9	0.401	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3621213	482828.4	0.772	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4781989	478198.9	-0.194	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4803733	480373.3	0.260	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4764090	476409	-0.568	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

4 Acetone



Expected retention time: 4.179 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

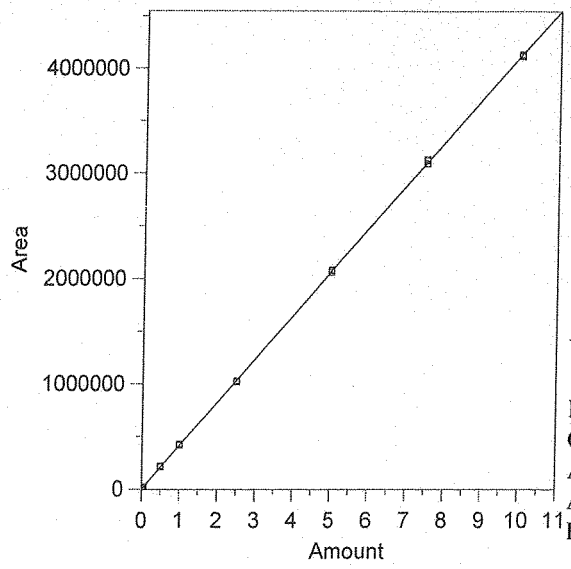
Single peak quantification by area

Y = 416415.2 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999405
Average error: 1.960%
Average CF: 422955.5
RSD: 2.274%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2238.368	447673.6	7.507	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2171.32	434264	4.286	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2130.784	426156.8	2.339	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10615.52	424620.8	1.971	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10418.99	416759.6	0.083	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10743.64	429745.6	3.201	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	21509.85	430197	3.310	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	21494.17	429883.4	3.234	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	21202.1	424042	1.832	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	223642.5	447285	7.413	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	212278.1	424556.2	1.955	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	214246.7	428493.4	2.901	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	426914.8	426914.8	2.521	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	422587.8	422587.8	1.482	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	420868.8	420868.8	1.070	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1025289	410115.6	-1.513	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1019650	407860	-2.054	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1038209	415283.6	-0.272	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2070625	414125	-0.550	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2103557	420711.4	1.032	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2080934	416186.8	-0.055	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3130817	417442.3	0.247	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3151942	420258.9	0.923	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3133901	417853.5	0.345	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4164627	416462.7	0.011	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4152960	415296	-0.269	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4141528	414152.8	-0.543	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

5 Propionaldehyde



Expected retention time:	4.45 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

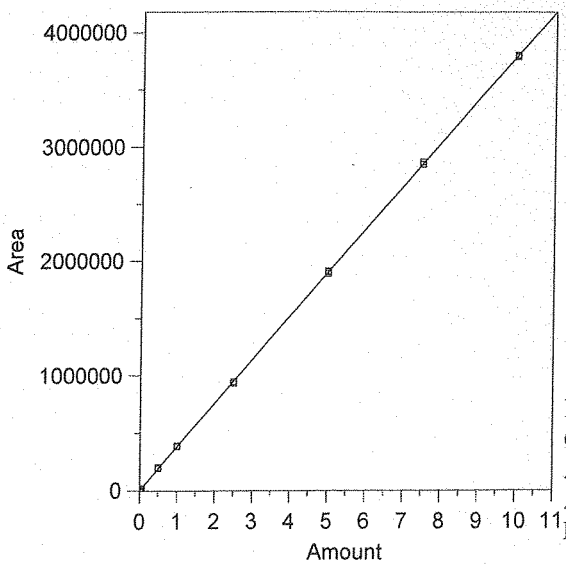
$Y = 413491.1 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999471
Average error:	1.596%
Average CF:	416900.7
RSD:	1.885%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2017.78	403556	-2.403	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2120.531	424106.2	2.567	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2110.294	422058.8	2.072	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10270.25	410810	-0.648	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10463.54	418541.6	1.221	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10129.01	405160.4	-2.015	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	21474.82	429496.4	3.871	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	21155.03	423100.6	2.324	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	21206.9	424138	2.575	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	218583.6	437167.2	5.726	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	211193.6	422387.2	2.151	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	211752.1	423504.2	2.422	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	425236.3	425236.3	2.841	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	416753.3	416753.3	0.789	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	420042.3	420042.3	1.584	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1017464	406985.6	-1.573	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1016426	406570.4	-1.674	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1025583	410233.2	-0.788	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2060419	412083.8	-0.340	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2076059	415211.8	0.416	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2079987	415997.4	0.606	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3092180	412290.7	-0.290	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3130391	417385.5	0.942	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3118990	415865.3	0.574	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4134994	413499.4	0.002	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4125538	412553.8	-0.227	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4115842	411584.2	-0.461	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

6 Crotonaldehyde



Expected retention time: 5.222 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

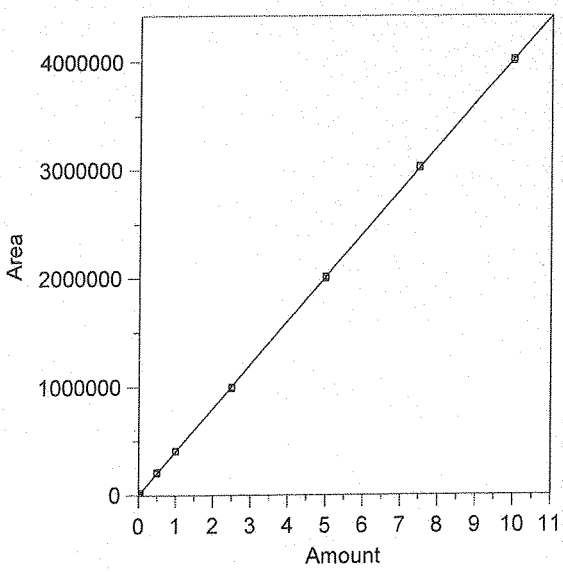
Single peak quantification by area

$Y = 380159.3\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999585
Average error: 1.483%
Average CF: 383492.5
RSD: 2.008%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1954.227	390845.4	2.811	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1853.591	370718.2	-2.483	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2006.267	401253.4	5.549	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	9500.876	380035	-0.033	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	9677.464	387098.6	1.825	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	9491.502	379660.1	-0.131	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	19612.18	392243.6	3.179	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	19377.38	387547.6	1.943	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	19062.43	381248.6	0.287	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	202454.9	404909.8	6.511	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	192705	385410	1.381	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	193772.2	387544.4	1.943	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	389857.3	389857.3	2.551	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	384117.9	384117.9	1.041	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	383544.6	383544.6	0.890	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	931914.6	372765.8	-1.945	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	933845.9	373538.3	-1.742	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	943212	377284.8	-0.756	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1892096	378419.2	-0.458	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1909513	381902.6	0.459	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1905140	381028	0.229	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	2846489	379531.9	-0.165	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2869201	382560.1	0.632	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	2868674	382489.9	0.613	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	3796762	379676.2	-0.127	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	3802364	380236.4	0.020	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	3788300	378830	-0.350	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

7 Methacrolein



Expected retention time: 5.582 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

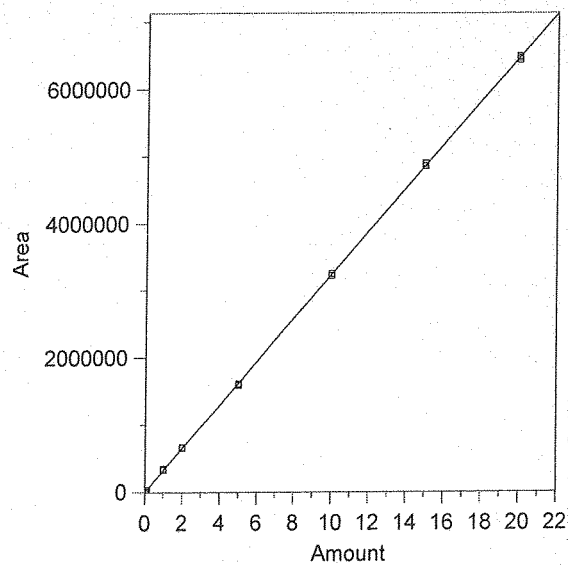
Single peak quantification by area

Y = 402103.5 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999555
Average error: 1.593%
Average CF: 405803.3
RSD: 2.245%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2046.606	409321.2	1.795	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1941.76	388352	-3.420	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2152.434	430486.8	7.059	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10133.4	405336	0.804	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10129.37	405174.8	0.764	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10215.62	408624.8	1.622	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	20786.57	415731.4	3.389	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	20543.71	410874.2	2.181	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	20057.09	401141.8	-0.239	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	215228.8	430457.6	7.051	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	202696.3	405392.6	0.818	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	205546.4	411092.8	2.236	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	411542.4	411542.4	2.347	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	406241.6	406241.6	1.029	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	405954.8	405954.8	0.958	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	988074.2	395229.7	-1.709	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	985936.9	394374.8	-1.922	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1000575	400230	-0.466	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1996175	399235	-0.713	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2017778	403555.6	0.361	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2011258	402251.6	0.037	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3018119	402415.9	0.078	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3035201	404693.5	0.644	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3035088	404678.4	0.640	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4025485	402548.5	0.111	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4010411	401041.1	-0.264	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4007106	400710.6	-0.346	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

8 MEK & Butyraldehyde



Expected retention time: 5.966 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

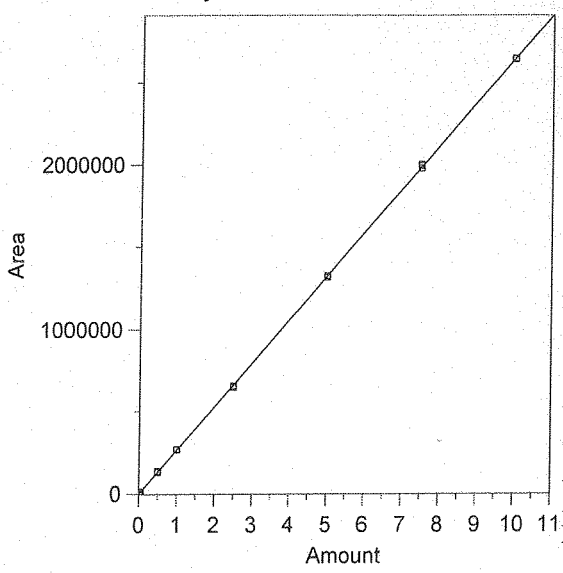
Single peak quantification by area

$Y = 323725.3\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999455
Average error: 1.583%
Average CF: 327616.8
RSD: 1.902%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.01	3295.589	329558.9	1.802	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.01	3245.783	324578.3	0.264	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.01	3411.926	341192.6	5.396	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.05	16421.55	328431	1.454	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.05	16468.17	329363.4	1.742	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.05	16425.41	328508.2	1.477	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.1	33572.15	335721.5	3.706	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.1	33048.58	330485.8	2.088	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.1	32802.24	328022.4	1.327	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	1	346679.9	346679.9	7.091	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	1	328309.7	328309.7	1.416	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	1	331244	331244	2.323	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	2	664752.6	332376.3	2.672	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	2	656210.7	328105.3	1.353	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	2	654874.3	327437.2	1.147	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	5	1594650	318930	-1.481	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	5	1588729	317745.8	-1.847	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	5	1611625	322325	-0.433	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	10	3222726	322272.6	-0.449	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	10	3250978	325097.8	0.424	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	10	3247845	324784.5	0.327	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	15	4851557	323437.1	-0.089	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	15	4886541	325769.4	0.631	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	15	4893723	326248.2	0.779	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	20	6462091	323104.6	-0.192	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	20	6486439	324321.9	0.184	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	20	6432050	321602.5	-0.656	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

9 Benzaldehyde



Expected retention time: 6.375 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

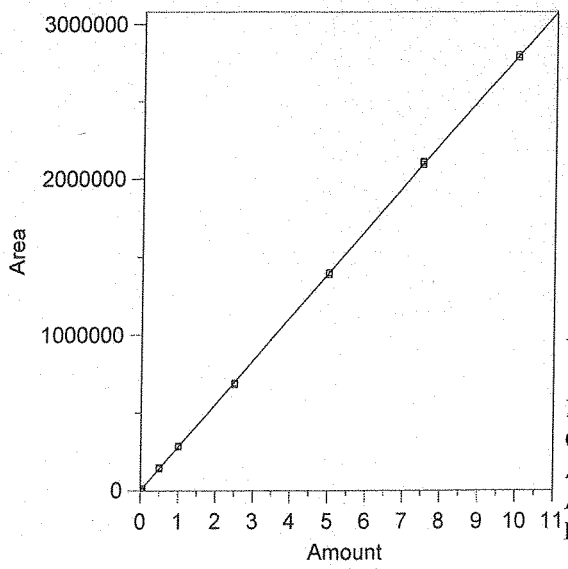
Single peak quantification by area

$Y = 264532.8 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999563
Average error: 1.328%
Average CF: 264682.8
RSD: 1.937%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1271.628	254325.6	-3.859	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1273.601	254720.2	-3.709	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1382.946	276589.2	4.558	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	6506.057	260242.3	-1.622	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6640.884	265635.3	0.417	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	6582.594	263303.8	-0.465	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	13464.09	269281.8	1.795	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	13243.82	264876.4	0.130	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	13138.29	262765.8	-0.668	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	138265.6	276531.2	4.536	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	131281	262562	-0.745	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	134626.8	269253.6	1.785	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	270957.1	270957.1	2.429	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	266032	266032	0.567	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	266541.5	266541.5	0.759	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	647530.3	259012.1	-2.087	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	648400.6	259360.3	-1.955	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	655172.9	262069.2	-0.931	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1315721	263144.2	-0.525	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1324105	264821	0.109	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1325810	265162	0.238	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1978244	263765.9	-0.290	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2001675	266890	0.891	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1993485	265798	0.478	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2645002	264500.2	-0.012	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2641466	264146.6	-0.146	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2641496	264149.6	-0.145	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

10 Valeraldehyde



Expected retention time: 8.329 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

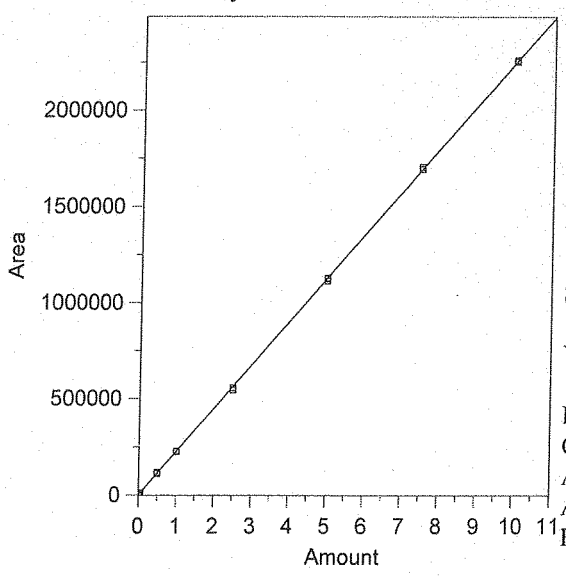
Single peak quantification by area

$Y = 279178.6\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999412
Average error: 1.679%
Average CF: 282346.4
RSD: 2.394%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1484.718	296943.6	6.363	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1440.975	288195	3.230	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1478.778	295755.6	5.938	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	6975.488	279019.5	-0.057	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6979.106	279164.2	-0.005	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	7027.2	281088	0.684	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	14633.92	292678.4	4.836	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	13928.58	278571.6	-0.217	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	14125.8	282516	1.195	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	149315.6	298631.2	6.968	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	140804	281608	0.870	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	142885.6	285771.2	2.361	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	286175.2	286175.2	2.506	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	280760.4	280760.4	0.567	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	280828.8	280828.8	0.591	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	681125.6	272450.3	-2.410	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	681786.7	272714.7	-2.315	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	691632.1	276652.8	-0.905	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1386088	277217.6	-0.702	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1398275	279655	0.171	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1395245	279049	-0.046	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	2091460	278861.3	-0.114	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2112053	281607.1	0.870	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	2105825	280776.7	0.572	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2799263	279926.3	0.268	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2783838	278383.8	-0.285	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2783513	278351.3	-0.296	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

11 m-Tolualdehyde



Expected retention time:	8.864 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

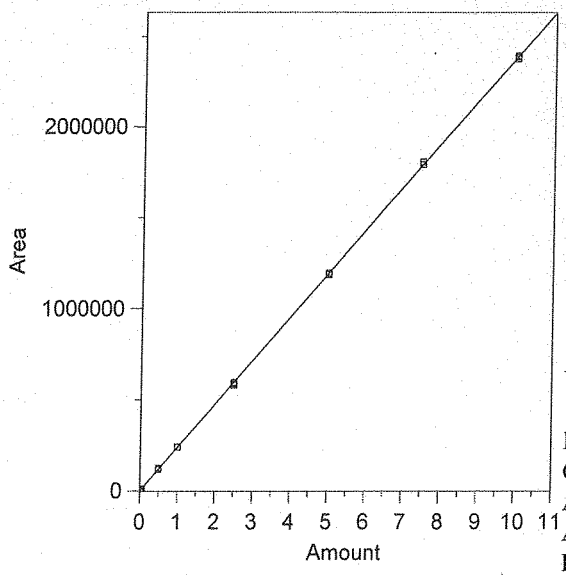
$Y = 225671.2\ X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999189
Average error:	1.845%
Average CF:	225055.9
RSD:	2.753%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1205.651	241130.2	6.850	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1133.419	226683.8	0.449	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1115.328	223065.6	-1.155	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	5301.758	212070.3	-6.027	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	5574.778	222991.1	-1.188	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	5291.765	211670.6	-6.204	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	11500.01	230000.2	1.918	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	10974.64	219492.8	-2.738	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	11585.74	231714.8	2.678	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	118273.4	236546.8	4.819	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	112401.6	224803.2	-0.385	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	114850.5	229701	1.786	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	228083.9	228083.9	1.069	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	224659.6	224659.6	-0.448	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	224437.7	224437.7	-0.547	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	545930.8	218372.3	-3.234	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	545333.1	218133.3	-3.340	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	555975.6	222390.3	-1.454	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1112742	222548.4	-1.384	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1127437	225487.4	-0.081	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1124909	224981.8	-0.305	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1693020	225736	0.029	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	1703770	227169.3	0.664	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1705210	227361.3	0.749	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2261498	226149.8	0.212	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2256941	225694.1	0.010	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2254343	225434.3	-0.105	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

12 Hexaldehyde



Expected retention time: 11.919 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

$Y = 238926 X + 0$

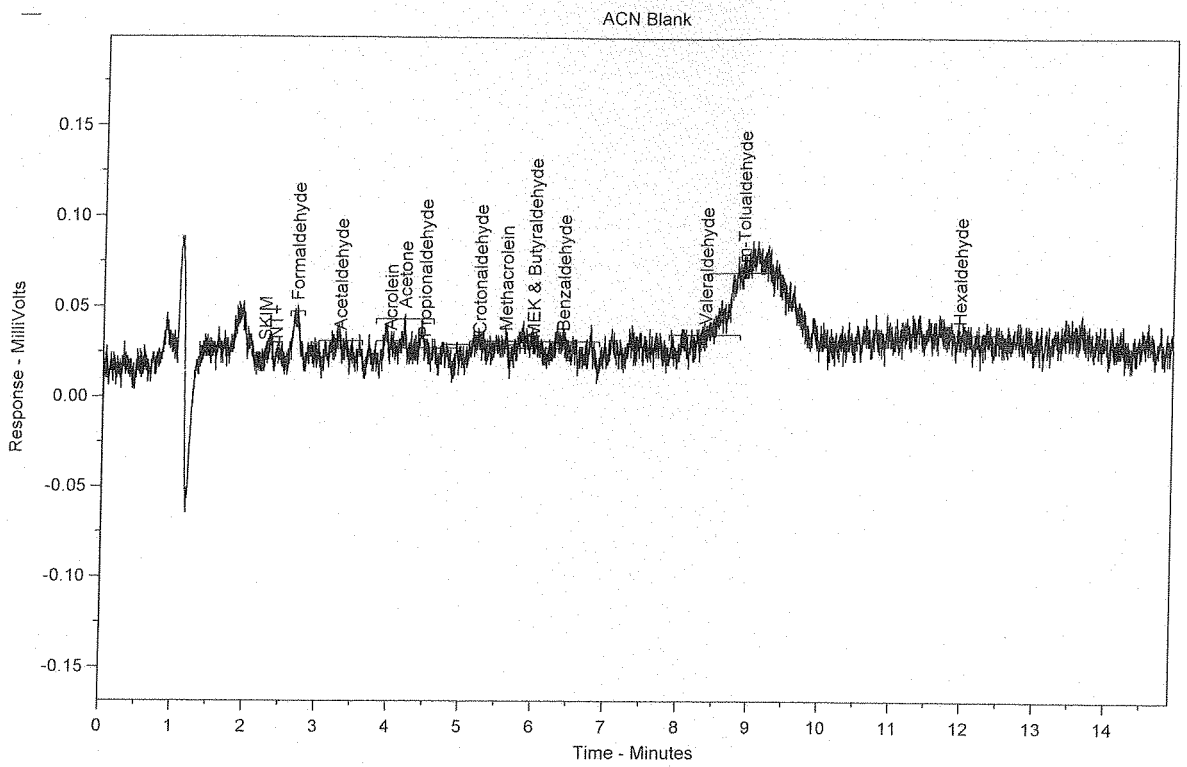
Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.999934
Average error: 1.592%
Average CF: 241305.9
RSD: 2.114%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1202.478	240495.6	0.657	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1239.538	247907.6	3.759	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1271.401	254280.2	6.426	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	5947.313	237892.5	-0.433	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6068.35	242734	1.594	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	5933.474	237339	-0.664	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	12531.54	250630.8	4.899	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	12251.32	245026.4	2.553	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	12152.7	243054	1.728	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	126196	252392	5.636	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	120634.2	241268.4	0.980	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	121148.8	242297.6	1.411	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	242571.7	242571.7	1.526	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	240813.4	240813.4	0.790	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	241116.1	241116.1	0.917	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	587005.4	234802.2	-1.726	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	579802.9	231921.2	-2.932	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	594270.9	237708.3	-0.510	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1188236	237647.2	-0.535	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1187571	237514.2	-0.591	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1196602	239320.4	0.165	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1792229	238963.9	0.016	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	1807473	240996.4	0.867	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1806138	240818.4	0.792	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2394549	239454.9	0.221	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2387175	238717.5	-0.087	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2375749	237574.9	-0.565	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113(cal).SEQ
File Date = 6/12/2013 11:26:01 AM
Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	061113.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	061113.0002.raw	061113 TO-11A.MET	STD 1-1 (.005ug/ml [PS061113-01)x2000]	2	1
3	061113.0003.raw	061113 TO-11A.MET	STD 1-2 (.005ug/ml [PS061113-01)x2000]	2	1
4	061113.0004.raw	061113 TO-11A.MET	STD 1-3 (.005ug/ml [PS061113-01)x2000]	2	1
5	061113.0005.raw	061113 TO-11A.MET	STD 2-1 (.025ug/ml [PS061113-01)x400]	3	1
6	061113.0006.raw	061113 TO-11A.MET	STD 2-2 (.025ug/ml [PS061113-01)x400]	3	1
7	061113.0007.raw	061113 TO-11A.MET	STD 2-3 (.025ug/ml [PS061113-01)x400]	3	1
8	061113.0008.raw	061113 TO-11A.MET	STD 3-1 (.050ug/ml [PS061113-01)x200]	4	1
9	061113.0009.raw	061113 TO-11A.MET	STD 3-2 (.050ug/ml [PS061113-01)x200]	4	1
10	061113.0010.raw	061113 TO-11A.MET	STD 3-3 (.050ug/ml [PS061113-01)x200]	4	1
11	061113.0011.raw	061113 TO-11A.MET	STD 4-1 (.5ug/ml [PS061113-01)x20]	5	1
12	061113.0012.raw	061113 TO-11A.MET	STD 4-2 (.5ug/ml [PS061113-01)x20]	5	1
13	061113.0013.raw	061113 TO-11A.MET	STD 4-3 (.5ug/ml [PS061113-01)x20]	5	1
14	061113.0014.raw	061113 TO-11A.MET	STD 5-1 (1.0ug/ml [PS061113-01)x10]	6	1
15	061113.0015.raw	061113 TO-11A.MET	STD 5-2 (1.0ug/ml [PS061113-01)x10]	6	1
16	061113.0016.raw	061113 TO-11A.MET	STD 5-3 (1.0ug/ml [PS061113-01)x10]	6	1
17	061113.0017.raw	061113 TO-11A.MET	STD 6-1 (2.5ug/ml [PS061113-01)x4]	7	1
18	061113.0018.raw	061113 TO-11A.MET	STD 6-2 (2.5ug/ml [PS061113-01)x4]	7	1
19	061113.0019.raw	061113 TO-11A.MET	STD 6-3 (2.5ug/ml [PS061113-01)x4]	7	1
20	061113.0020.raw	061113 TO-11A.MET	STD 7-1 (5.0ug/ml [PS061113-01)x2]	8	1
21	061113.0021.raw	061113 TO-11A.MET	STD 7-2 (5.0ug/ml [PS061113-01)x2]	8	1
22	061113.0022.raw	061113 TO-11A.MET	STD 7-3 (5.0ug/ml [PS061113-01)x2]	8	1
23	061113.0023.raw	061113 TO-11A.MET	STD 8-1 (7.5ug/ml [PS061113-01)x1.3]	9	1
24	061113.0024.raw	061113 TO-11A.MET	STD 8-2 (7.5ug/ml [PS061113-01)x1.3]	9	1
25	061113.0025.raw	061113 TO-11A.MET	STD 8-3 (7.5ug/ml [PS061113-01)x1.3]	9	1
26	061113.0026.raw	061113 TO-11A.MET	STD 9-1 (10.0ug/ml [PS061113-01)x1]	10	1
27	061113.0027.raw	061113 TO-11A.MET	STD 9-2 (10.0ug/ml [PS061113-01)x1]	10	1
28	061113.0028.raw	061113 TO-11A.MET	STD 9-3 (10.0ug/ml [PS061113-01)x1]	10	1
29	061113.0029.raw	061113 TO-11A.MET	ACN Blank	11	1
30	061113.0030.raw	061113 TO-11A.MET	CCV (2.5ug/ml [PS061113-01]x4]	12	1
31	061113.0031.raw	061113 TO-11A.MET	CCV (2.5ug/ml [PS061113-01]x4]	13	1
32	061113.0032.raw	061113 TO-11A.MET	ACN Blank	14	1
33	061113.0033.raw	061113 TO-11A.MET	STD 2-1 (.025ug/ml [PS061113-01)x400]	15	1

Raw Data



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0001.RAW**
Date Taken (end) = 7/29/2013 10:30:40 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

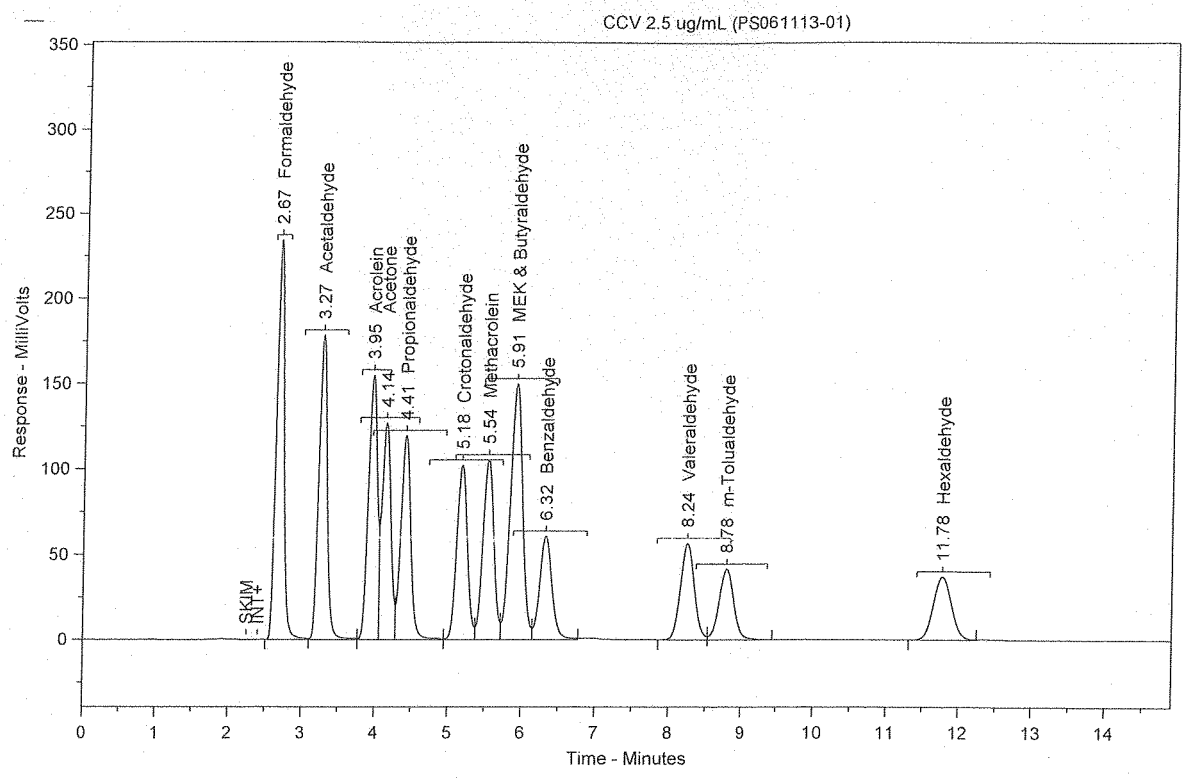
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

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

HP 07/29/13



Sample Name = **CCV 2.5 ug/mL (PS061113-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0002.RAW**
Date Taken (end) = 7/29/2013 10:47:19 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

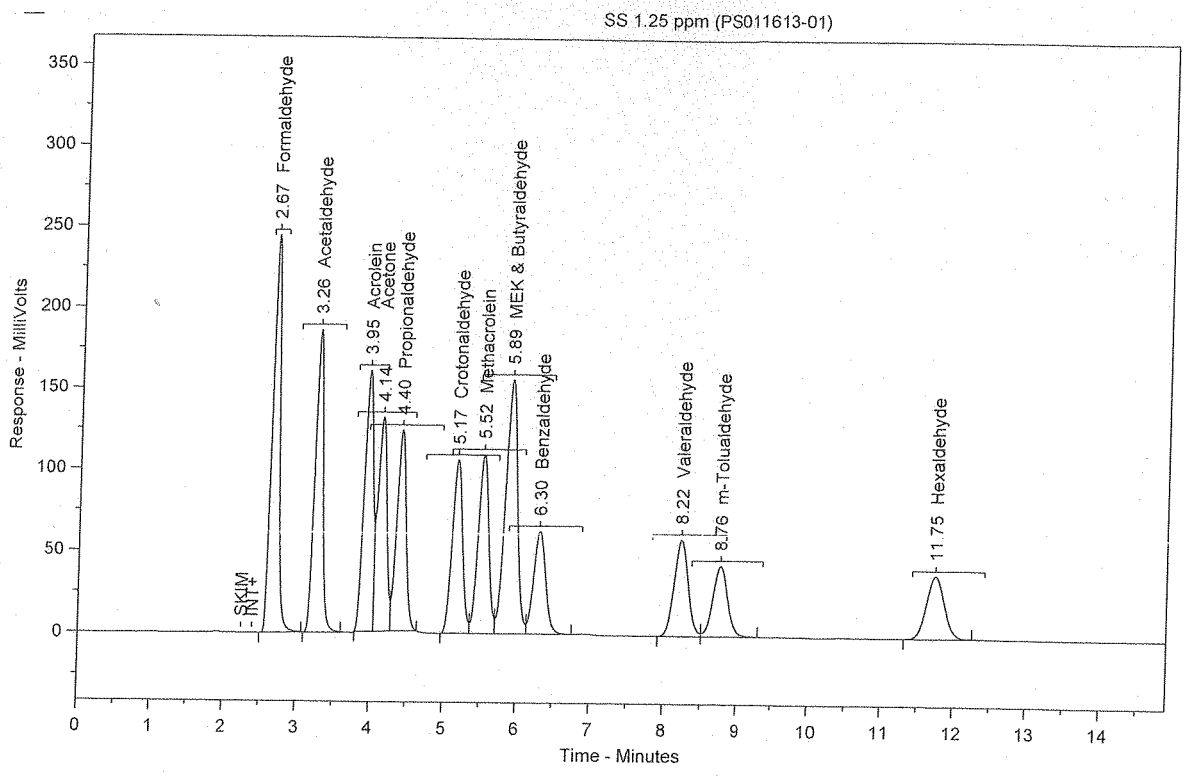
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 2
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	2.6484	7.620	1704147	12.965	SBB	0.11
2	3.27	Acetaldehyde	2.6807	7.713	1416531	10.777	TBV	0.12
3	3.95	Acrolein	2.6655	7.669	1277114	9.716	TVV	0.14
4	4.14	Acetone	2.6575	7.646	1106613	8.419	TVV	0.13
5	4.41	Propionaldehyde	2.7091	7.795	1120196	8.522	TVV	0.14
6	5.18	Crotonaldehyde	2.6653	7.669	1013235	7.708	TVV	0.15
7	5.54	Methacrolein	2.6835	7.721	1079037	8.209	TVV	0.15
8	5.91	MEK & Butyraldehyde	5.3425	15.372	1729516	13.158	TVV	0.17
9	6.32	Benzaldehyde	2.6931	7.749	712400	5.420	TVB	0.18
10	8.24	Valeraldehyde	2.6685	7.678	744976	5.668	BV	0.20
11	8.78	m-Tolualdehyde	2.6573	7.646	599683	4.562	VB	0.22
12	11.78	Hexaldehyde	2.6835	7.721	641157	4.878	BB	0.27

Total Area = 1.31446E+07 Total Height = 1366921 Total Amount = 34.75483

07/29/13



Sample Name = **SS 1.25 ppm (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0003.RAW**
Date Taken (end) = 7/29/2013 11:03:58 AM

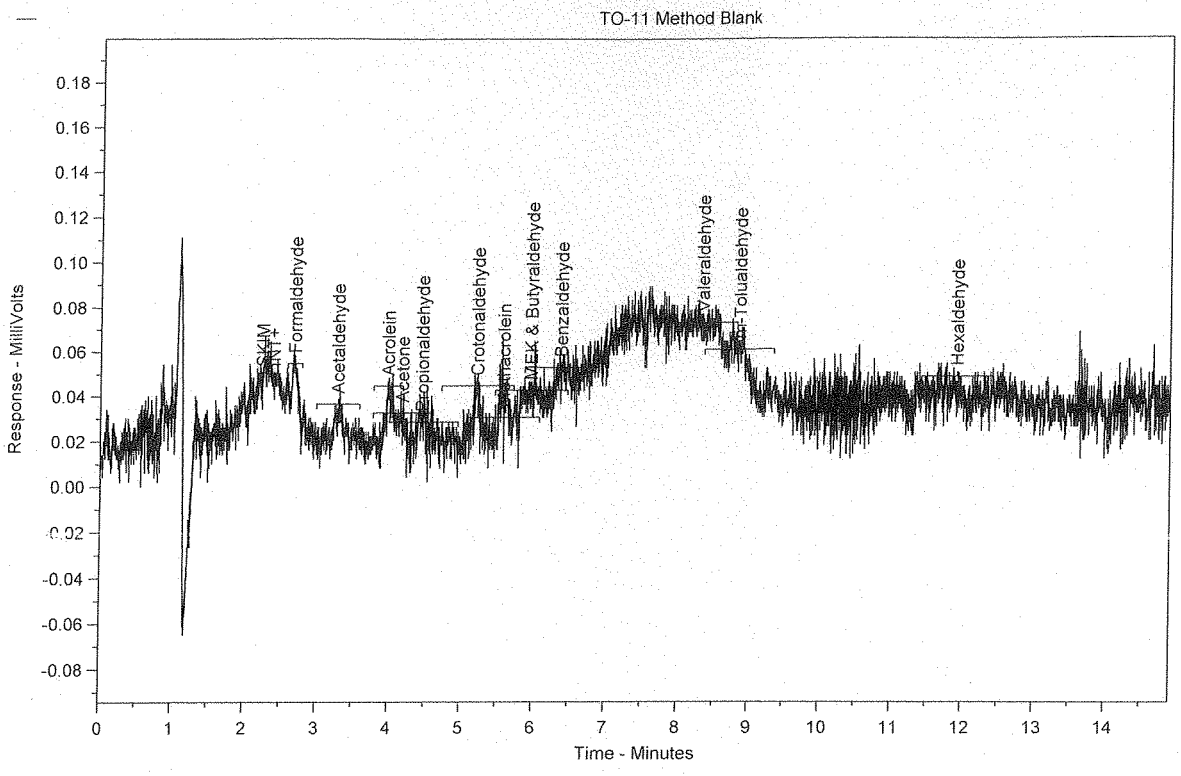
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 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	2.67	Formaldehyde	2.7347	7.730	1759704	13.145	BB	0.11
2	3.26	Acetaldehyde	2.7309	7.720	1443044	10.780	BB	0.12
3	3.95	Acrolein	2.7010	7.635	1294144	9.667	BV	0.14
4	4.14	Acetone	2.7327	7.725	1137956	8.501	VV	0.13
5	4.40	Propionaldehyde	2.6659	7.536	1102332	8.234	VB	0.14
6	5.17	Crotonaldehyde	2.7148	7.674	1032038	7.709	BV	0.15
7	5.52	Methacrolein	2.7363	7.735	1100261	8.219	VV	0.15
8	5.89	MEK & Butyraldehyde	5.4856	15.507	1775833	13.266	VV	0.17
9	6.30	Benzaldehyde	2.6880	7.598	711070	5.312	VB	0.17
10	8.22	Valeraldehyde	2.7430	7.754	765786	5.720	BV	0.20
11	8.76	m-Tolualdehyde	2.7009	7.635	609521	4.553	VB	0.22
12	11.75	Hexaldehyde	2.7419	7.751	655117	4.894	BB	0.27

Total Area = 1.33868E+07 Total Height = 1420963 Total Amount = 35.3758



Sample Name = **TO-11 Method Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0004.RAW**
Date Taken (end) = 7/29/2013 11:20:37 AM

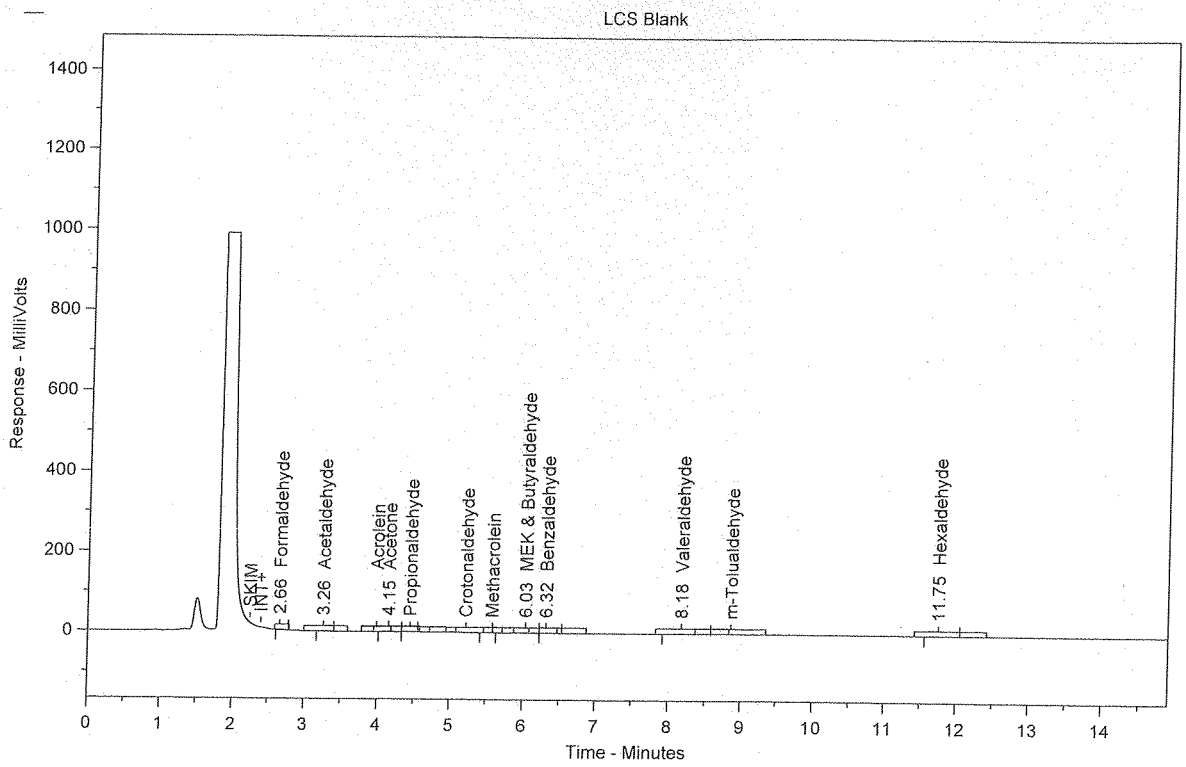
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 4
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



Sample Name = **LCS Blank**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0005.RAW**
Date Taken (end) = 7/29/2013 11:37:15 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

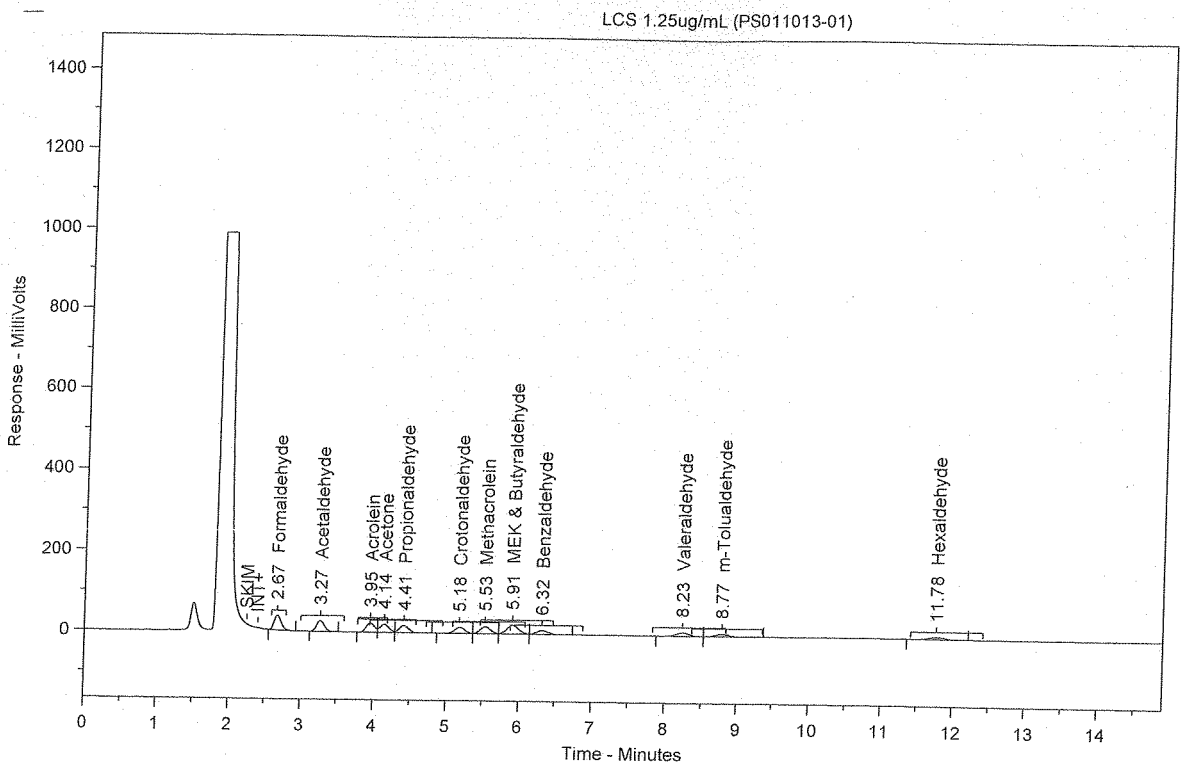
Vial Number = 5
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	0.0081	6.746	5196	12.201	BB	0.12
2	3.26	Acetaldehyde	0.0069	5.805	3671	8.622	BB	0.16
3	4.15	Acetone	0.0240	20.010	9973	23.421	BV	0.13
6	6.03	MEK & Butyraldehyde	0.0370	30.919	11980	28.134	BV	0.24
7	6.32	Benzaldehyde	0.0109	9.079	2875	6.751	VB	0.20
8	8.18	Valeraldehyde	0.0259	21.600	7218	16.950	BB	0.25
9	11.75	Hexaldehyde	0.0070	5.840	1670	3.922	BB	0.29

Total Area = 42583.5

Total Height = 4086.386

Total Amount = 0.119692



Sample Name = **LCS 1.25ug/mL (PS011013-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0006.RAW**
Date Taken (end) = 7/29/2013 11:53:55 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

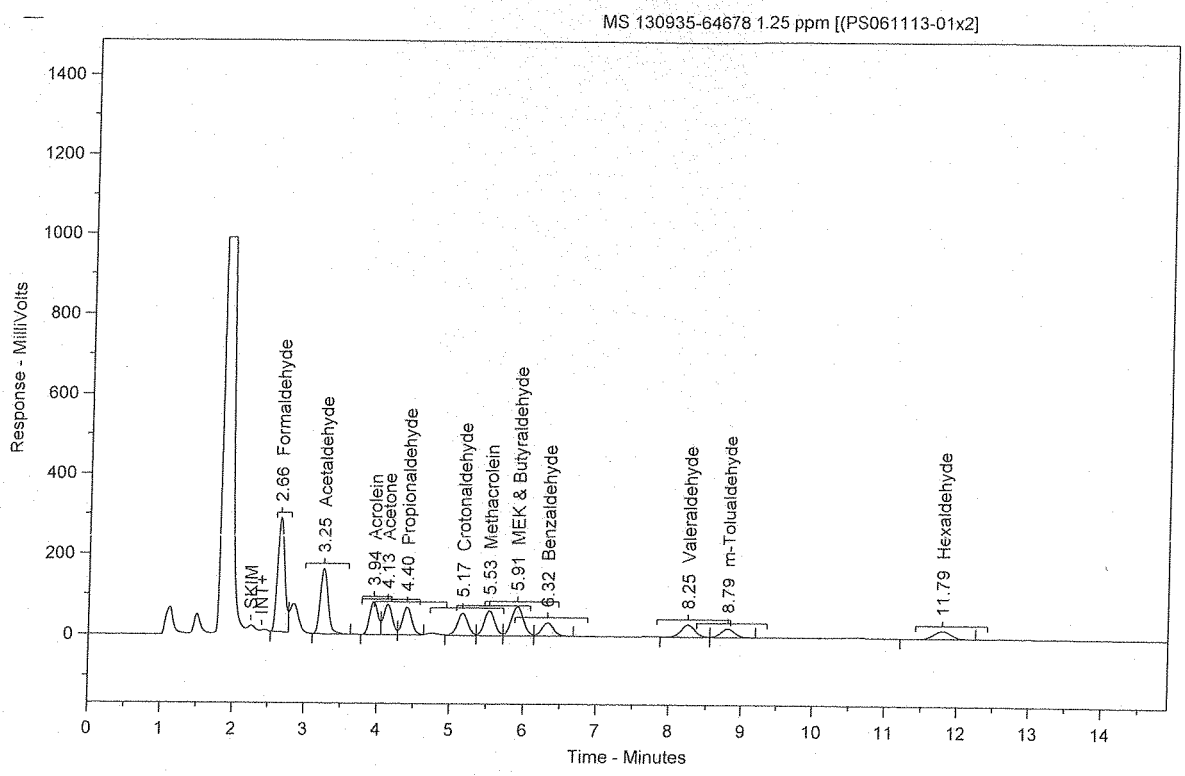
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 6
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.3969	7.856	255390	13.335	BB	0.11
2	3.27	Acetaldehyde	0.3751	7.425	198207	10.350	BB	0.12
3	3.95	Acrolein	0.3873	7.667	185572	9.690	BV	0.14
4	4.14	Acetone	0.4121	8.157	171596	8.960	VV	0.13
5	4.41	Propionaldehyde	0.3852	7.625	159280	8.317	VB	0.14
6	5.18	Crotonaldehyde	0.3774	7.471	143483	7.492	BV	0.15
7	5.53	Methacrolein	0.4190	8.294	168479	8.797	VV	0.15
8	5.91	MEK & Butyraldehyde	0.7413	14.674	239979	12.531	VV	0.17
9	6.32	Benzaldehyde	0.3807	7.536	100714	5.259	VB	0.17
10	8.23	Valeraldehyde	0.4065	8.047	113498	5.926	BV	0.20
11	8.77	m-Tolualdehyde	0.3853	7.627	86956	4.541	VB	0.22
12	11.78	Hexaldehyde	0.3849	7.619	91961	4.802	BB	0.27

Total Area = 1915114 Total Height = 204940.9 Total Amount = 5.051798



Sample Name = **MS 130935-64678 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0007.RAW**
Date Taken (end) = 7/29/2013 12:10:34 PM

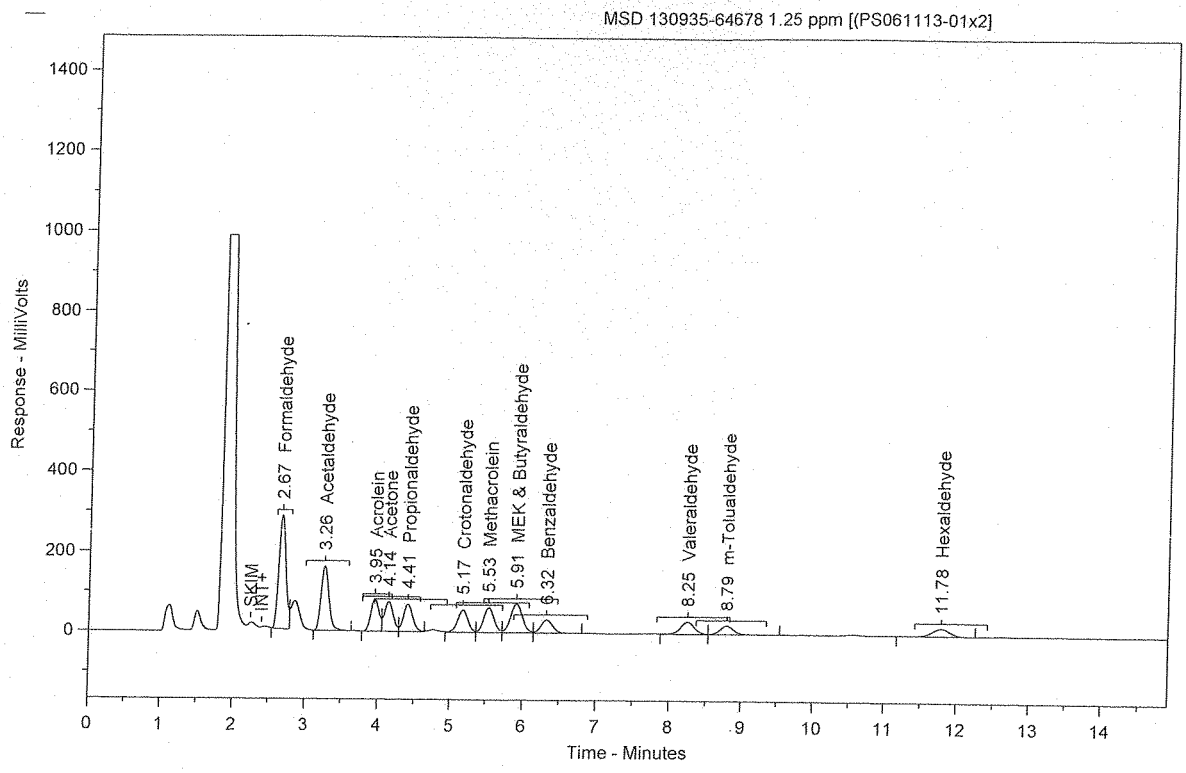
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 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	2.66	Formaldehyde	3.0263	14.588	1947309	23.052	BB	0.11
2	3.25	Acetaldehyde	2.3219	11.193	1226908	14.524	BB	0.12
3	3.94	Acrolein	1.3474	6.495	645570	7.642	BV	0.13
4	4.13	Acetone	1.5218	7.336	633694	7.502	VV	0.13
5	4.40	Propionaldehyde	1.4824	7.146	612966	7.256	VB	0.13
6	5.17	Crotonaldehyde	1.4520	6.999	551987	6.534	BV	0.15
7	5.53	Methacrolein	1.5169	7.312	609951	7.221	VV	0.15
8	5.91	MEK & Butyraldehyde	2.5100	12.100	812551	9.619	VV	0.17
9	6.32	Benzaldehyde	1.3796	6.650	364937	4.320	VB	0.17
10	8.25	Valeraldehyde	1.4591	7.034	407353	4.822	BV	0.20
11	8.79	m-Tolualdehyde	1.3154	6.341	296851	3.514	VB	0.21
12	11.79	Hexaldehyde	1.4119	6.806	337351	3.994	BB	0.27

Total Area = 8447426 Total Height = 959184.3 Total Amount = 20.74463



Sample Name = **MSD 130935-64678 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0008.RAW**
Date Taken (end) = 7/29/2013 12:27:13 PM

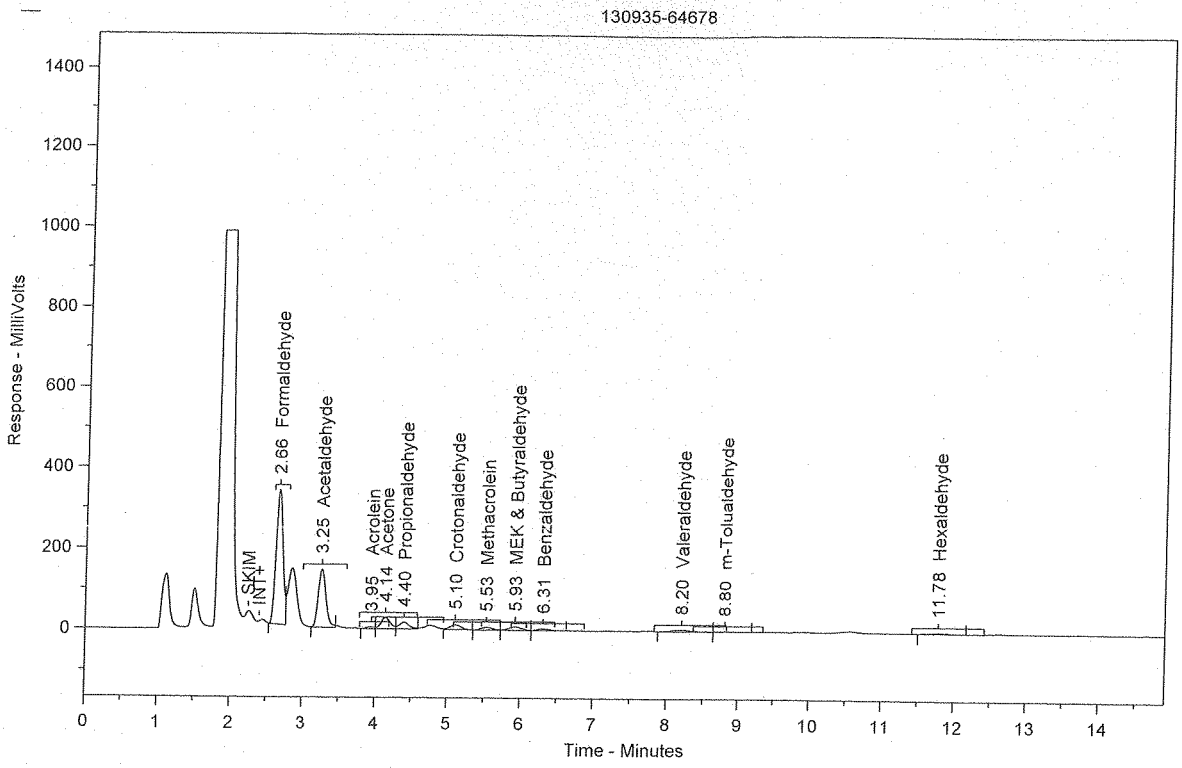
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 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	2.67	Formaldehyde	3.0183	14.500	1942183	22.943	BB	0.11
2	3.26	Acetaldehyde	2.3219	11.154	1226905	14.493	BB	0.12
3	3.95	Acrolein	1.3523	6.496	647915	7.654	BV	0.13
4	4.14	Acetone	1.5207	7.306	633256	7.481	VV	0.13
5	4.41	Propionaldehyde	1.4877	7.147	615136	7.266	VB	0.13
6	5.17	Crotonaldehyde	1.4591	7.010	554701	6.553	BV	0.15
7	5.53	Methacrolein	1.5243	7.323	612937	7.241	VV	0.15
8	5.91	MEK & Butyraldehyde	2.5115	12.065	813043	9.604	VV	0.17
9	6.32	Benzaldehyde	1.3840	6.649	366106	4.325	VB	0.17
10	8.25	Valeraldehyde	1.4632	7.029	408498	4.826	BV	0.20
11	8.79	m-Tolualdehyde	1.3455	6.464	303639	3.587	VB	0.21
12	11.78	Hexaldehyde	1.4275	6.858	341060	4.029	BB	0.27

Total Area = 8465378 Total Height = 963646.3 Total Amount = 20.81596



Sample Name = **130935-64678**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0009.RAW**
Date Taken (end) = 7/29/2013 12:43:55 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

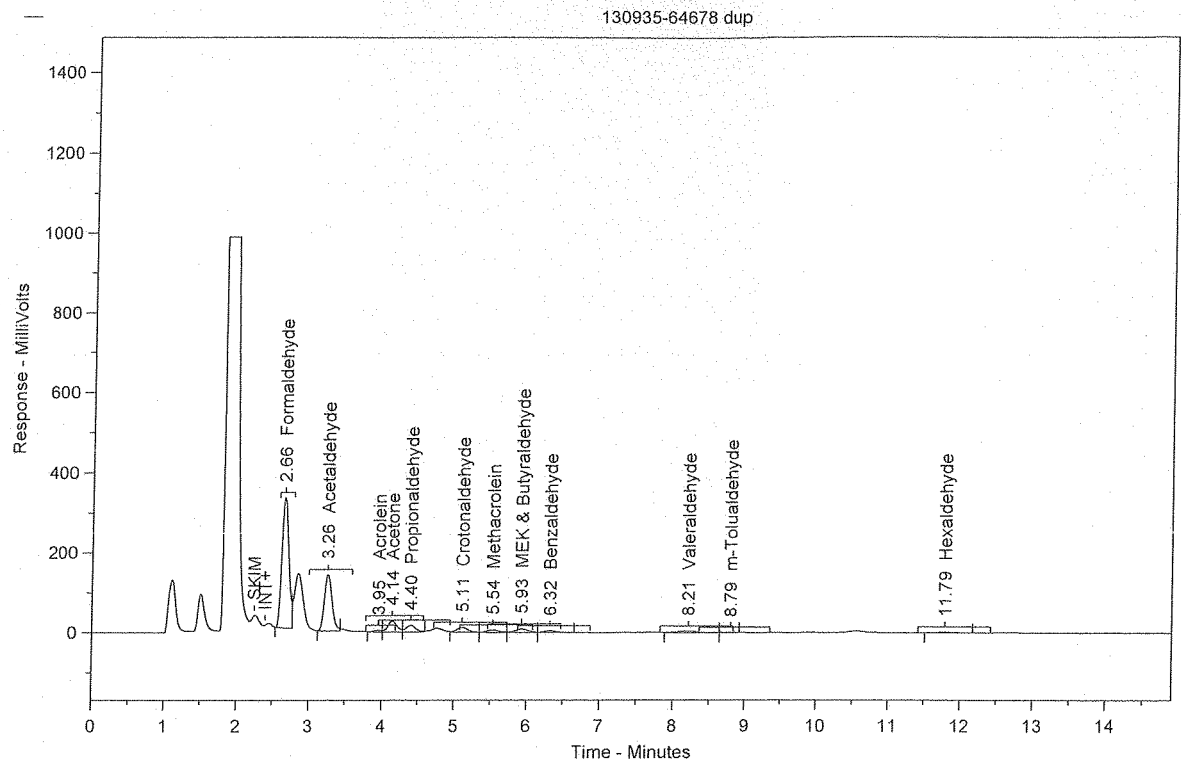
Vial Number = 9
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	3.4555	42.994	2223513	52.882	BB	0.11
2	3.25	Acetaldehyde	2.0316	25.278	1073535	25.532	BB	0.11
3	3.95	Acrolein	0.0595	0.740	28487	0.677	BV	0.12
4	4.14	Acetone	0.5908	7.351	246024	5.851	VV	0.12
5	4.40	Propionaldehyde	0.3880	4.827	160415	3.815	VB	0.13
6	5.10	Crotonaldehyde	0.3101	3.858	117881	2.804	BB	0.17
7	5.53	Methacrolein	0.1521	1.893	61171	1.455	BV	0.15
8	5.93	MEK & Butyraldehyde	0.3043	3.786	98500	2.343	VV	0.18
9	6.31	Benzaldehyde	0.1860	2.314	49204	1.170	VB	0.18
10	8.20	Valeraldehyde	0.3213	3.997	89690	2.133	BV	0.31
11	8.80	m-Tolualdehyde	0.0437	0.544	9869	0.235	VB	0.36
12	11.78	Hexaldehyde	0.1943	2.417	46419	1.104	BB	0.27

Total Area = 4204708

Total Height = 560957.7

Total Amount = 8.037104



Sample Name = **130935-64678 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0010.RAW**
Date Taken (end) = 7/29/2013 1:00:34 PM

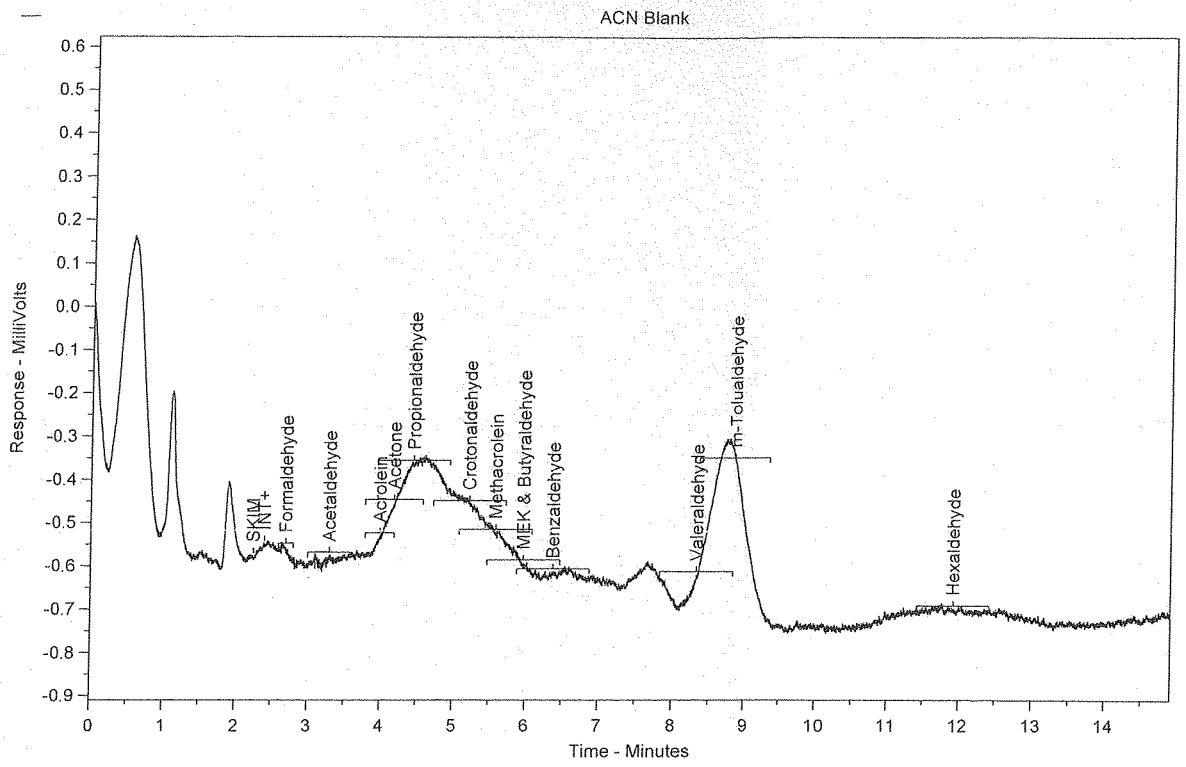
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
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	2.66	Formaldehyde	3.3919	43.017	2182577	52.967	BB	0.11
2	3.26	Acetaldehyde	1.9751	25.049	1043674	25.328	BB	0.11
3	3.95	Acrolein	0.0570	0.722	27288	0.662	BV	0.12
4	4.14	Acetone	0.5772	7.320	240350	5.833	VV	0.12
5	4.40	Propionaldehyde	0.3794	4.811	156871	3.807	VB	0.13
6	5.11	Crotonaldehyde	0.3061	3.882	116353	2.824	BB	0.16
7	5.54	Methacrolein	0.1498	1.900	60250	1.462	BV	0.15
8	5.93	MEK & Butyraldehyde	0.3007	3.814	97357	2.363	VV	0.18
9	6.32	Benzaldehyde	0.1821	2.309	48164	1.169	VB	0.18
10	8.21	Valeraldehyde	0.3279	4.159	91554	2.222	BV	0.31
11	8.79	m-Tolualdehyde	0.0446	0.566	10067	0.244	VB	0.17
12	11.79	Hexaldehyde	0.1932	2.450	46153	1.120	BB	0.27

Total Area = 4120657 Total Height = 552205 Total Amount = 7.884947



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0012.RAW**
Date Taken (end) = 7/29/2013 1:33:52 PM

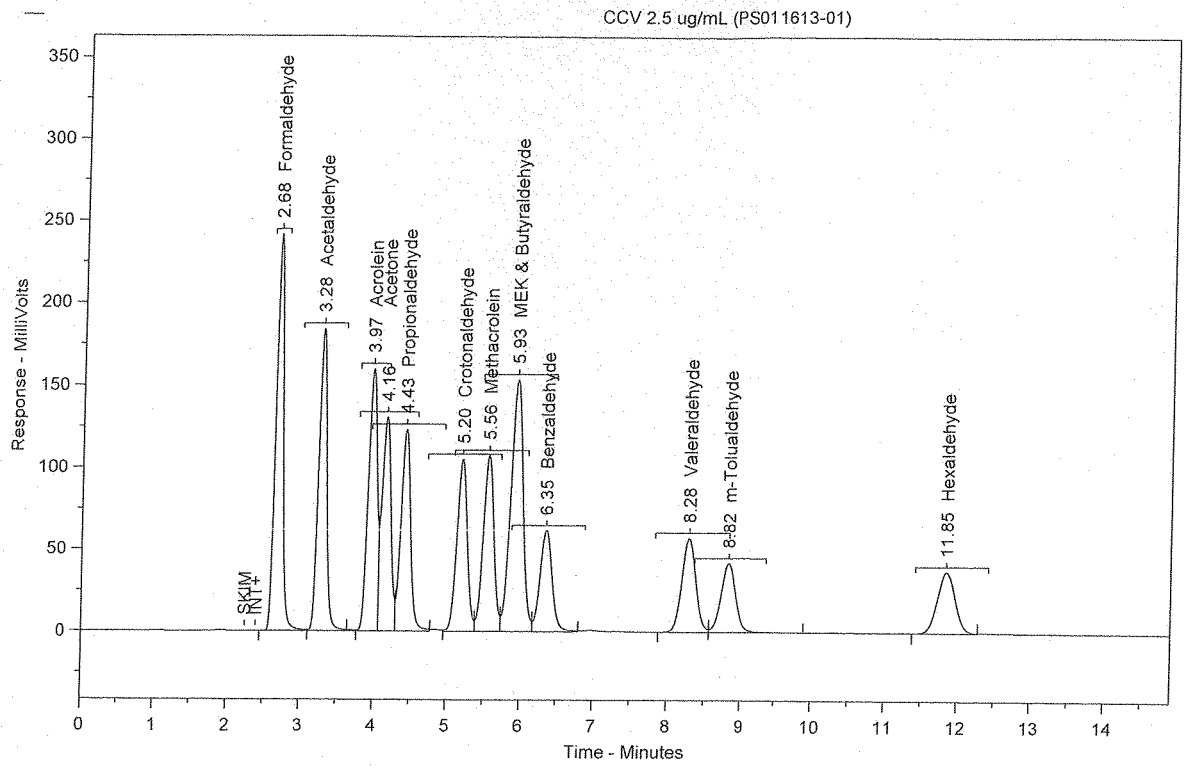
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 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



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0013.RAW**
Date Taken (end) = 7/29/2013 1:50:31 PM

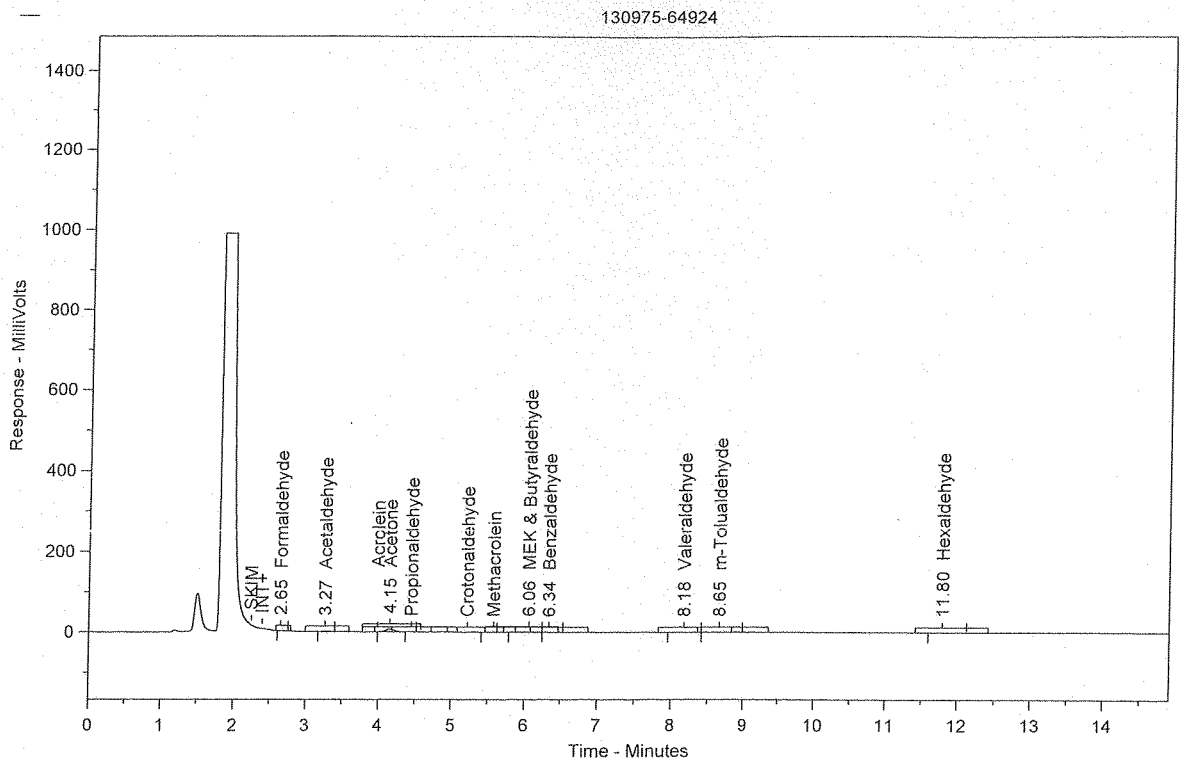
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 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	2.68	Formaldehyde	2.7001	7.650	1737433	13.011	SBB	0.11
2	3.28	Acetaldehyde	2.7106	7.680	1432319	10.726	TBV	0.12
3	3.97	Acrolein	2.7276	7.728	1306891	9.787	TVV	0.14
4	4.16	Acetone	2.6987	7.646	1123762	8.416	TVV	0.13
5	4.43	Propionaldehyde	2.7353	7.750	1131031	8.470	TVB	0.14
6	5.20	Crotonaldehyde	2.7172	7.699	1032975	7.736	BV	0.15
7	5.56	Methacrolein	2.7155	7.694	1091904	8.177	VV	0.15
8	5.93	MEK & Butyraldehyde	5.4511	15.445	1764664	13.215	VV	0.17
9	6.35	Benzaldehyde	2.7234	7.716	720439	5.395	VB	0.17
10	8.28	Valeraldehyde	2.7034	7.660	754734	5.652	BV	0.20
11	8.82	m-Tolualdehyde	2.6945	7.634	608061	4.554	VB	0.22
12	11.85	Hexaldehyde	2.7172	7.699	649205	4.862	BB	0.27

Total Area = 1.335342E+07 Total Height = 1408049 Total Amount = 35.29462



Sample Name = **130975-64924** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0014.RAW**
Date Taken (end) = 7/29/2013 2:07:10 PM

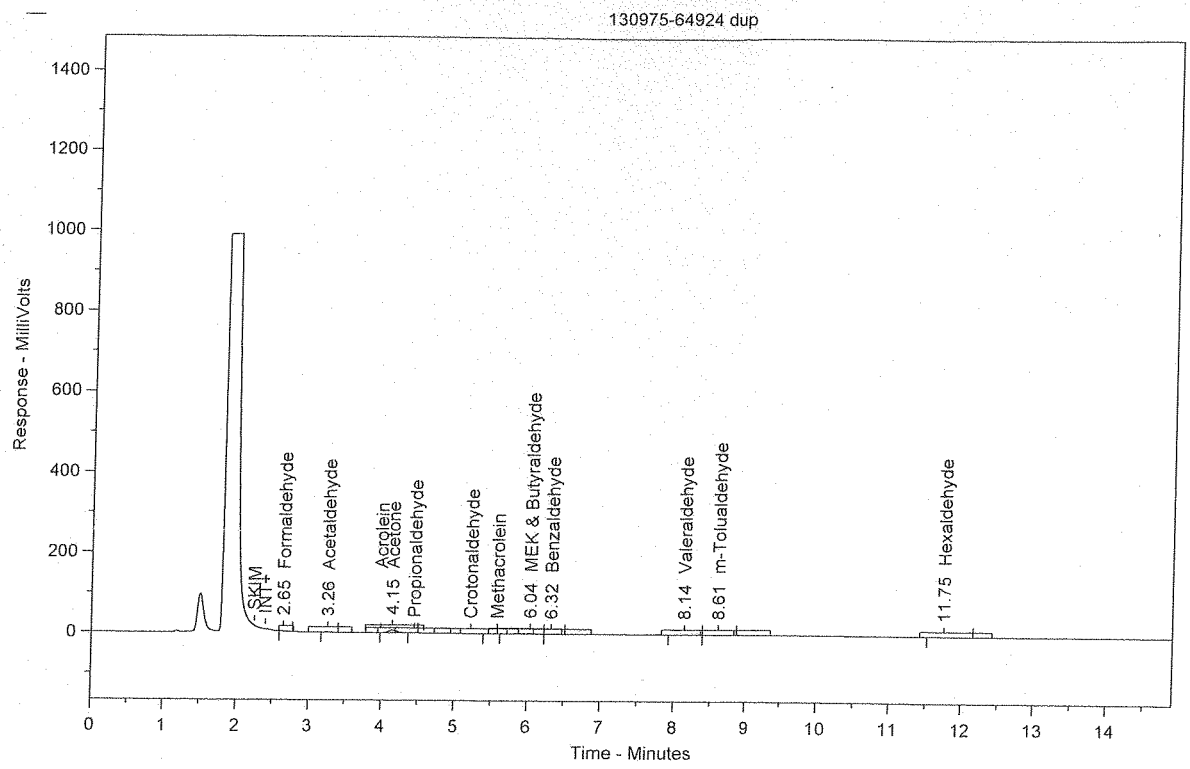
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 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	2.65	Formaldehyde	0.0042	1.418	2673	2.513	BB	0.11
2	3.27	Acetaldehyde	0.0126	4.301	6657	6.260	BB	0.13
3	4.15	Acetone	0.1454	49.631	60540	56.931	SBB	0.13
6	6.06	MEK & Butyraldehyde	0.0559	19.076	18089	17.011	BV	0.20
7	6.34	Benzaldehyde	0.0125	4.252	3295	3.098	VB	0.19
8	8.18	Valeraldehyde	0.0152	5.172	4230	3.978	BV	0.24
9	8.65	m-Tolualdehyde	0.0337	11.519	7615	7.161	VB	0.25
10	11.80	Hexaldehyde	0.0136	4.631	3241	3.048	BB	0.32

Total Area = 106339.3 Total Height = 11248.48 Total Amount = 0.2929279



Sample Name = **130975-64924 dup**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0015.RAW**
Date Taken (end) = 7/29/2013 2:23:49 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

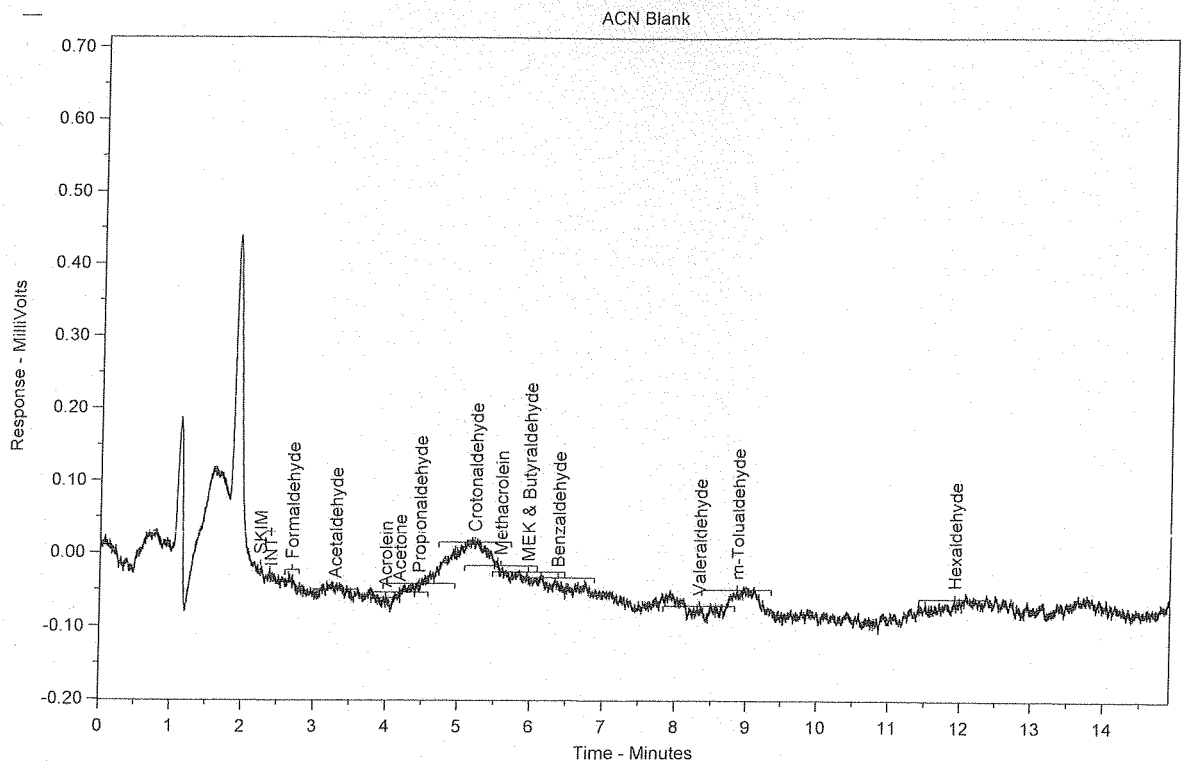
Vial Number = 15
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.65	Formaldehyde	0.0053	1.803	3409	3.181	BB	0.13
2	3.26	Acetaldehyde	0.0122	4.165	6465	6.034	BB	0.14
3	4.15	Acetone	0.1450	49.351	60370	56.340	SBB	0.13
6	6.04	MEK & Butyraldehyde	0.0598	20.347	19350	18.058	BV	0.22
7	6.32	Benzaldehyde	0.0116	3.944	3065	2.860	VB	0.18
8	8.14	Valeraldehyde	0.0150	5.108	4189	3.910	BV	0.31
9	8.61	m-Tolualdehyde	0.0318	10.812	7168	6.689	VB	0.24
10	11.75	Hexaldehyde	0.0131	4.470	3137	2.928	BB	0.30

Total Area = 107153

Total Height = 11183.29

Total Amount = 0.2937649



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0023.RAW**
Date Taken (end) = 7/29/2013 4:37:04 PM

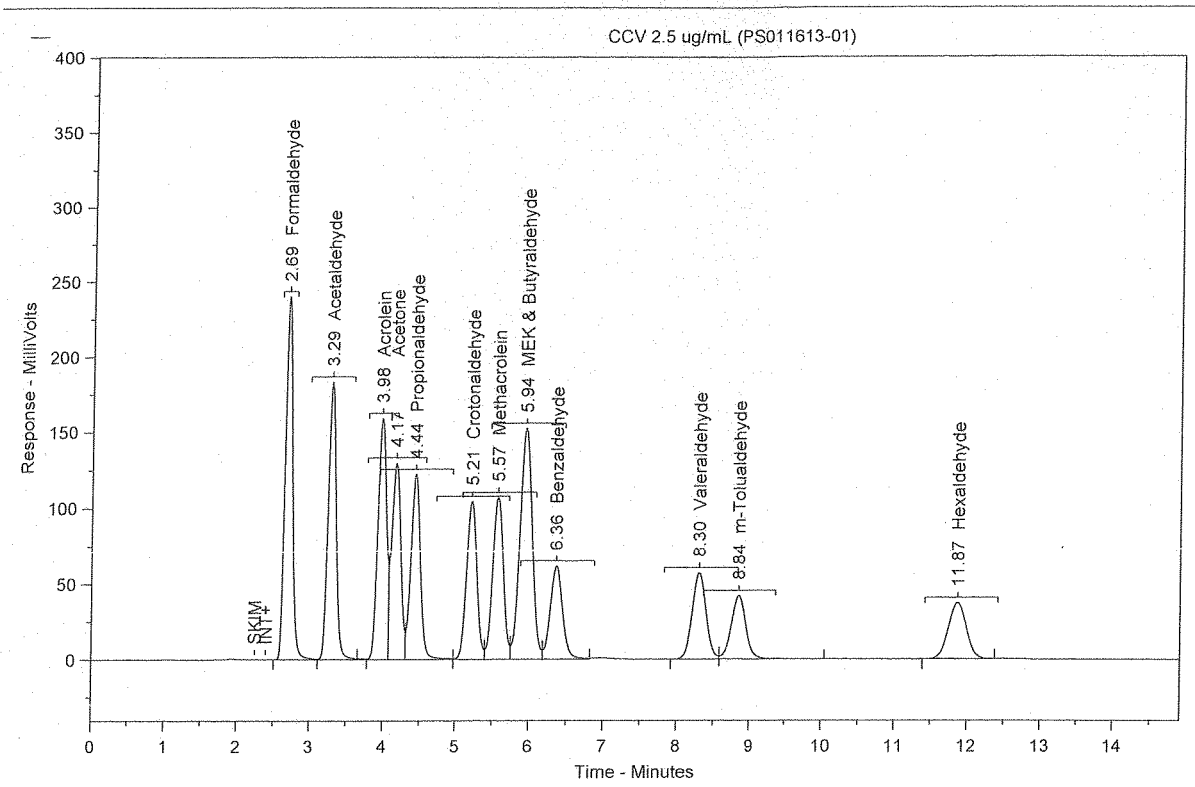
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 23
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



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0024.RAW**
Date Taken (end) = 7/29/2013 4:53:42 PM

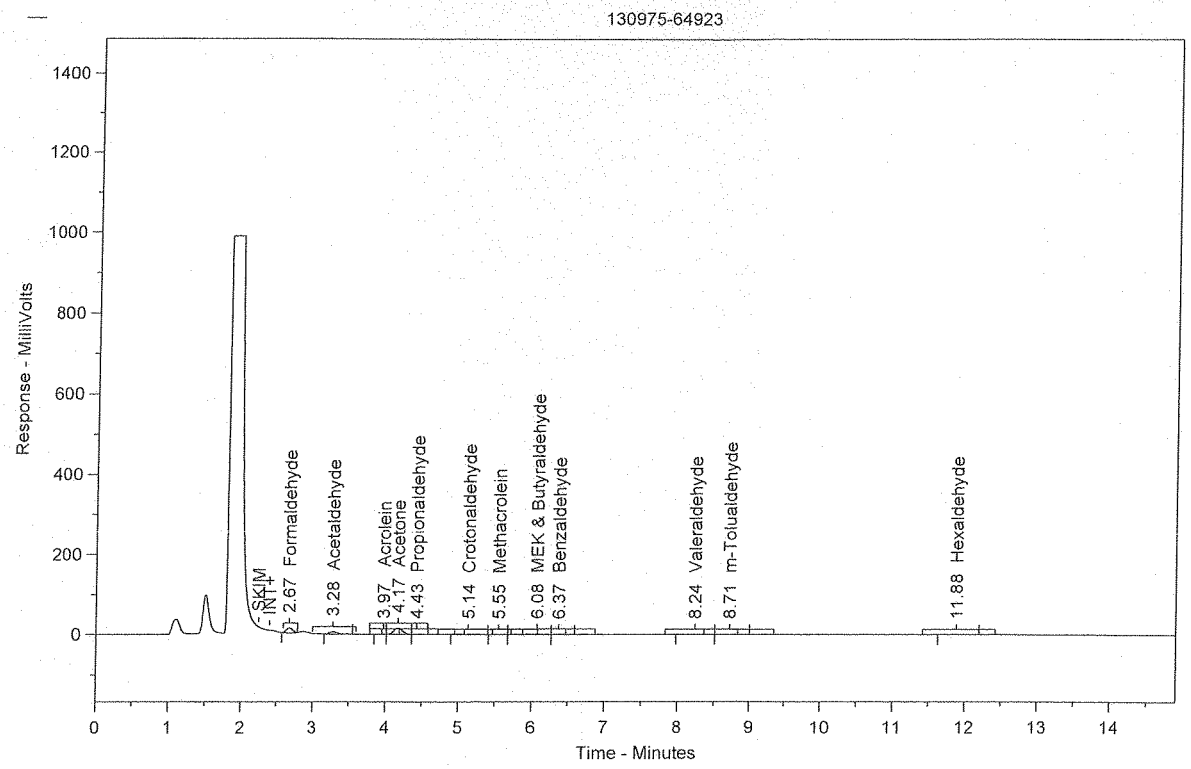
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 24
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.6562	7.620	1709166	12.965	SBB	0.11
2	3.29	Acetaldehyde	2.6749	7.674	1413462	10.722	TBV	0.12
3	3.98	Acrolein	2.6947	7.731	1291099	9.793	TVV	0.14
4	4.17	Acetone	2.6650	7.646	1109763	8.418	TVV	0.13
5	4.44	Propionaldehyde	2.7018	7.751	1117169	8.474	TVV	0.14
6	5.21	Crotonaldehyde	2.6748	7.674	1016847	7.713	TVV	0.15
7	5.57	Methacrolein	2.6859	7.705	1080019	8.192	TVV	0.15
8	5.94	MEK & Butyraldehyde	5.3822	15.441	1742363	13.216	TVV	0.17
9	6.36	Benzaldehyde	2.7037	7.756	715209	5.425	TVB	0.17
10	8.30	Valeraldehyde	2.6850	7.703	749585	5.686	BV	0.20
11	8.84	m-Tolualdehyde	2.6762	7.678	603944	4.581	VB	0.22
12	11.87	Hexaldehyde	2.6569	7.622	634796	4.815	BB	0.27

Total Area = 1.318342E+07 Total Height = 1397166 Total Amount = 34.85726



Sample Name = **130975-64923** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0025.RAW**
Date Taken (end) = 7/29/2013 5:10:21 PM

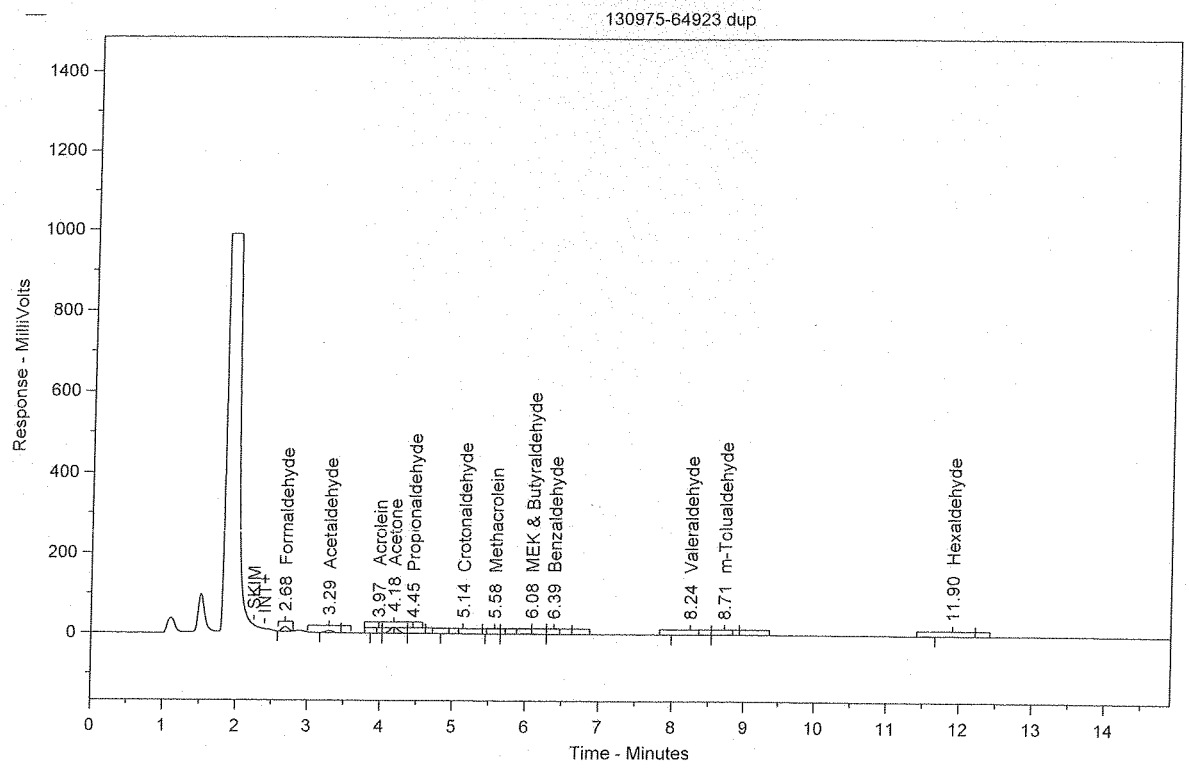
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 25
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.1180	15.726	75917	23.709	BB	0.10
2	3.28	Acetaldehyde	0.0747	9.958	39477	12.329	BB	0.12
3	3.97	Acrolein	0.0043	0.571	2053	0.641	BV	0.10
4	4.17	Acetone	0.3070	40.923	127845	39.926	VV	0.13
5	4.43	Propionaldehyde	0.0192	2.564	7952	2.484	VB	0.14
6	5.14	Crotonaldehyde	0.0254	3.379	9637	3.010	BB	0.34
7	5.55	Methacrolein	0.0039	0.525	1585	0.495	BV	0.18
8	6.08	MEK & Butyraldehyde	0.0847	11.289	27417	8.562	VV	0.30
9	6.37	Benzaldehyde	0.0203	2.699	5357	1.673	VB	0.19
10	8.24	Valeraldehyde	0.0320	4.265	8933	2.790	BV	0.28
11	8.71	m-Tolualdehyde	0.0371	4.951	8382	2.618	VB	0.24
12	11.88	Hexaldehyde	0.0236	3.151	5648	1.764	BB	0.30

Total Area = 320202.5 Total Height = 37668.04 Total Amount = 0.7502316



Sample Name = **130975-64923 dup**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0026.RAW**
Date Taken (end) = 7/29/2013 5:26:59 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

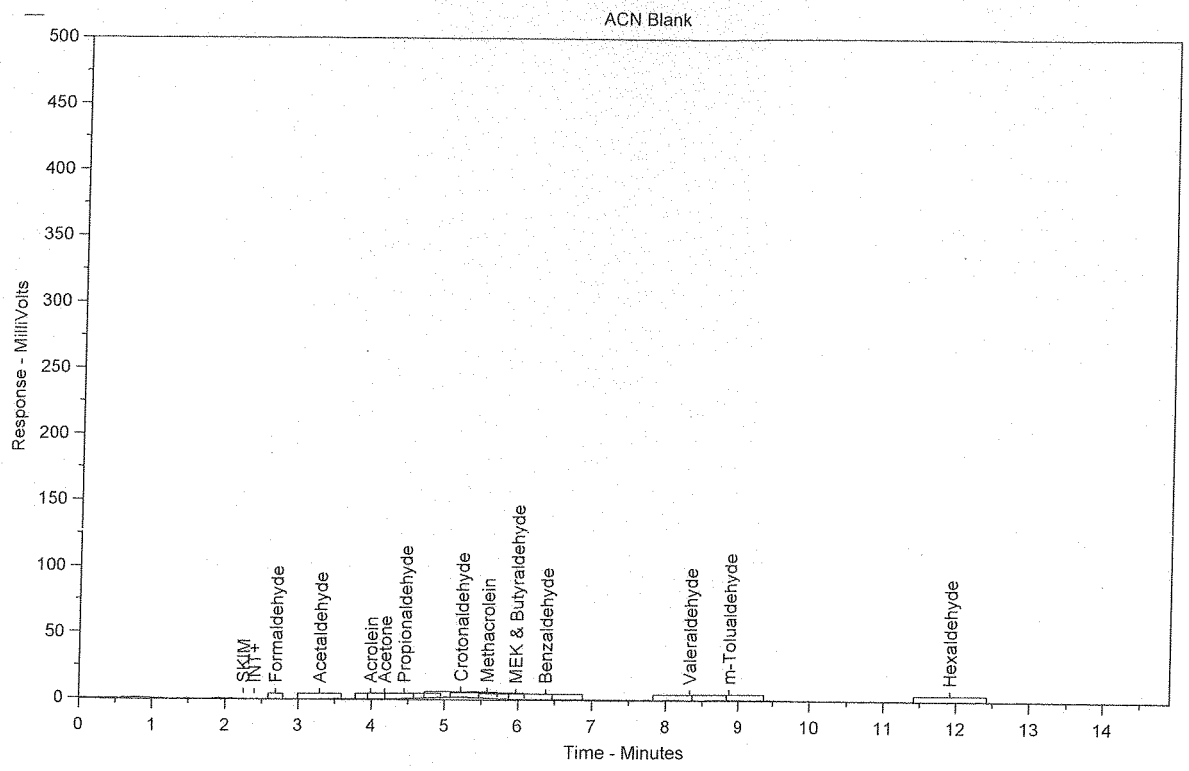
Vial Number = 26
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.1144	15.588	73594	23.552	BB	0.10
2	3.29	Acetaldehyde	0.0722	9.846	38174	12.217	BB	0.11
3	3.97	Acrolein	0.0037	0.498	1751	0.560	BV	0.10
4	4.18	Acetone	0.2995	40.818	124711	39.911	VV	0.13
5	4.45	Propionaldehyde	0.0185	2.520	7646	2.447	VB	0.14
6	5.14	Crotonaldehyde	0.0251	3.416	9528	3.049	BB	0.41
7	5.58	Methacrolein	0.0031	0.417	1230	0.394	BV	0.15
8	6.08	MEK & Butyraldehyde	0.0864	11.777	27974	8.952	VV	0.31
9	6.39	Benzaldehyde	0.0190	2.590	5027	1.609	VB	0.19
10	8.24	Valeraldehyde	0.0337	4.596	9414	3.013	BV	0.29
11	8.71	m-Tolualdehyde	0.0366	4.994	8269	2.646	VB	0.22
12	11.90	Hexaldehyde	0.0216	2.940	5155	1.650	BB	0.29

Total Area = 312472

Total Height = 36703.65

Total Amount = 0.7337198



Sample Name = **ACN Blank**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0034.RAW**
Date Taken (end) = 7/29/2013 7:40:12 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 34
Dilution Factor = 1

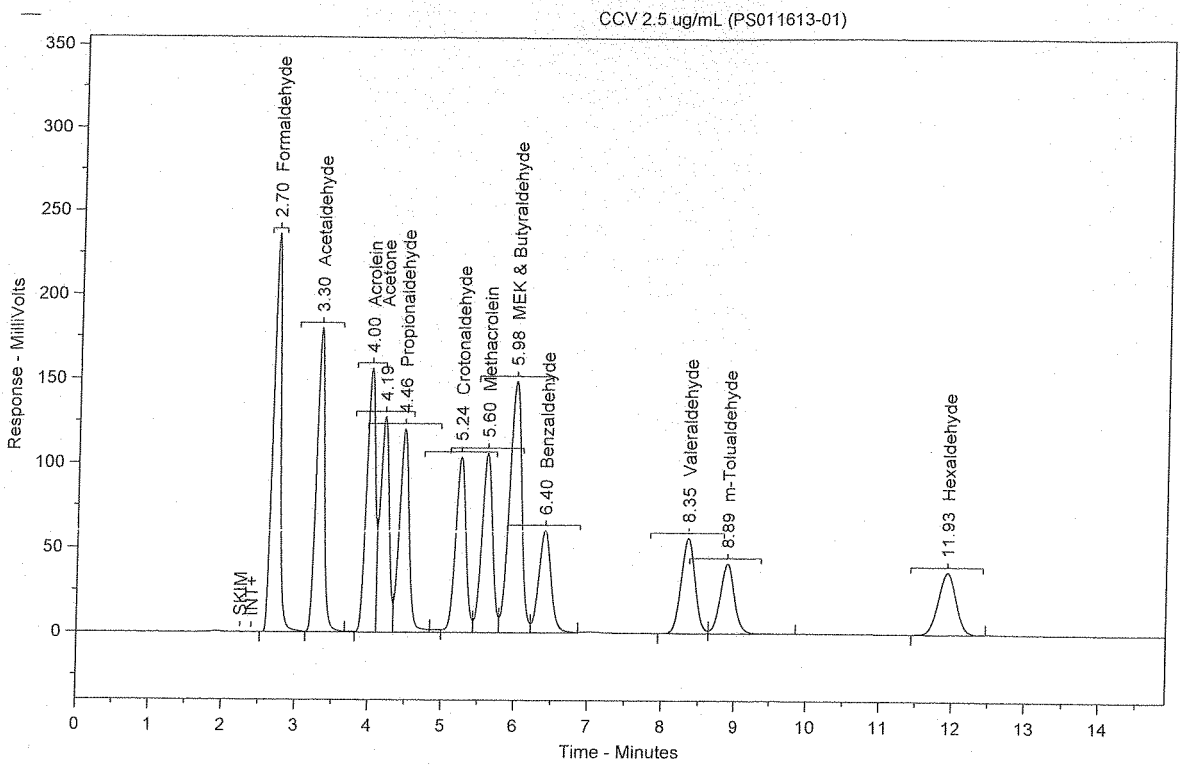
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0

Total Height = 0

Total Amount = 0

07/31/13



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0035.RAW**
Date Taken (end) = 7/29/2013 7:56:50 PM

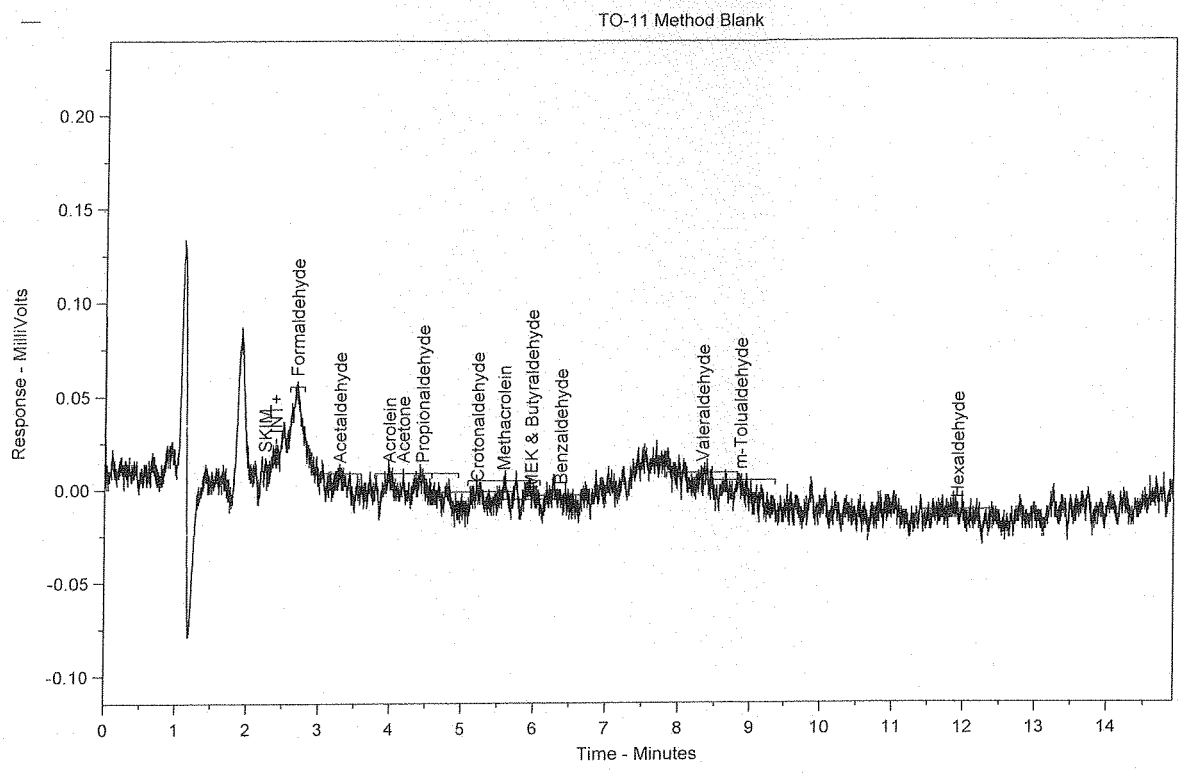
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 35
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	2.6583	7.707	1710555	13.093	SBB	0.11
2	3.30	Acetaldehyde	2.6419	7.660	1396033	10.686	TBV	0.12
3	4.00	Acrolein	2.6522	7.690	1270755	9.727	TVV	0.14
4	4.19	Acetone	2.6324	7.632	1096185	8.391	TVV	0.13
5	4.46	Propionaldehyde	2.6845	7.783	1110024	8.497	TVV	0.14
6	5.24	Crotonaldehyde	2.7296	7.914	1037665	7.943	TVV	0.15
7	5.60	Methacrolein	2.6824	7.777	1078598	8.256	TVV	0.15
8	5.98	MEK & Butyraldehyde	5.2876	15.331	1711714	13.102	TVV	0.17
9	6.40	Benzaldehyde	2.6450	7.669	699698	5.356	TVB	0.17
10	8.35	Valeraldehyde	2.6336	7.636	735254	5.628	BV	0.20
11	8.89	m-Tolualdehyde	2.6171	7.588	590605	4.521	VB	0.22
12	11.93	Hexaldehyde	2.6255	7.612	627305	4.802	BB	0.27

Total Area = 1.306439E+07 Total Height = 1375358 Total Amount = 34.49022



Sample Name = **TO-11 Method Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0036.RAW**
Date Taken (end) = 7/29/2013 8:13:28 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

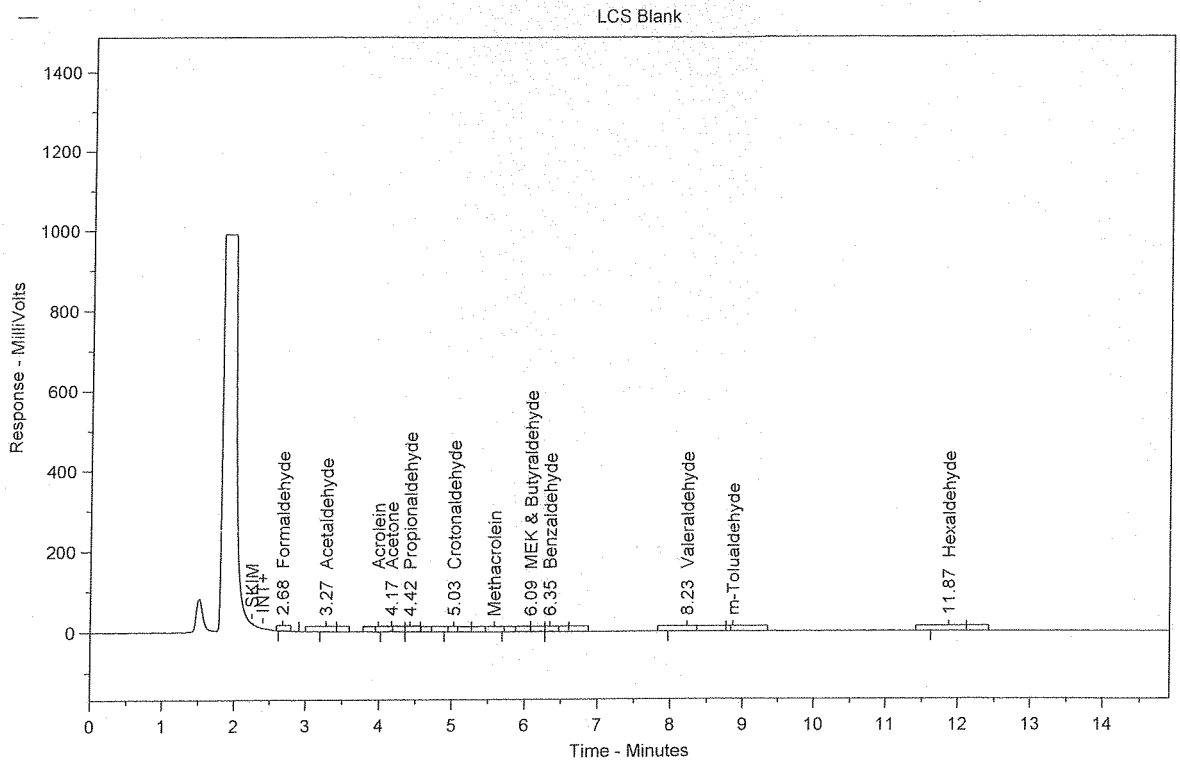
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 36
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

HP
07/30/13



Sample Name = **LCS Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0037.RAW**
Date Taken (end) = 7/29/2013 8:30:07 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

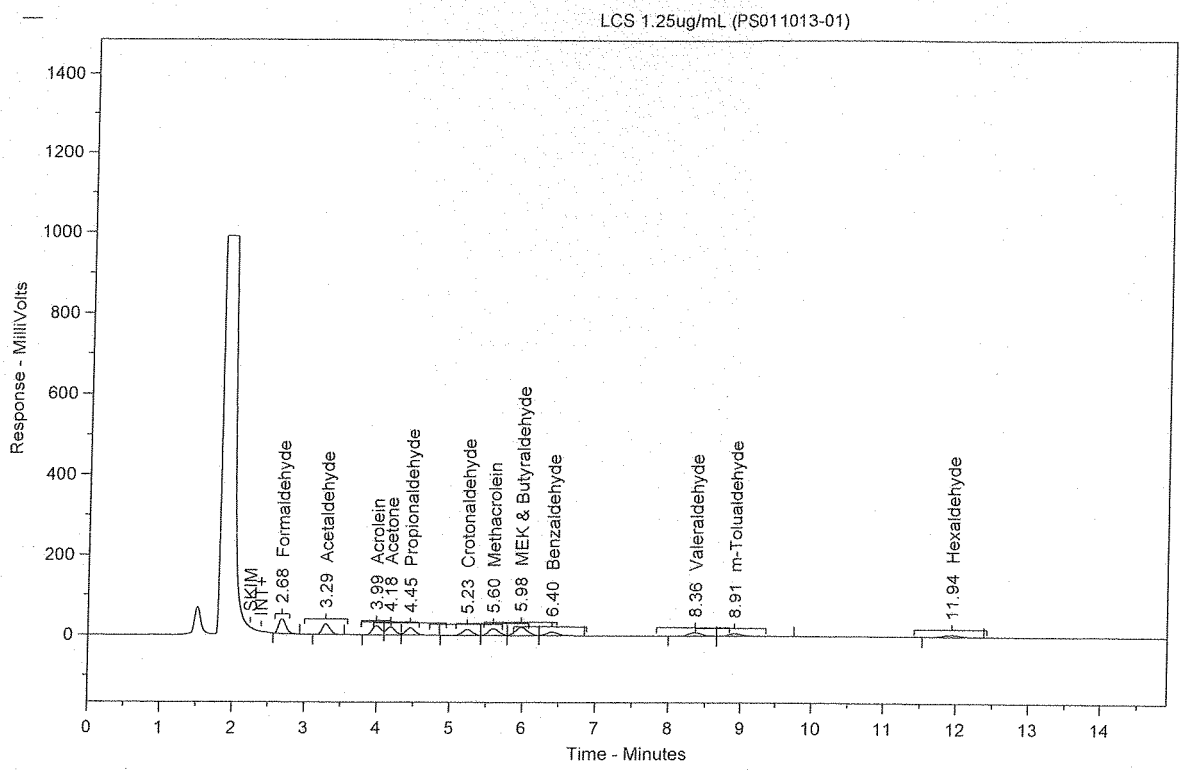
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 37
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0090	7.008	5767	12.534	BB	0.16
2	3.27	Acetaldehyde	0.0065	5.050	3413	7.417	BB	0.15
3	4.17	Acetone	0.0247	19.315	10285	22.356	BV	0.13
4	4.42	Propionaldehyde	0.0025	1.947	1030	2.238	VB	0.14
5	5.03	Crotonaldehyde	0.0038	2.992	1455	3.162	BB	0.27
6	6.09	MEK & Butyraldehyde	0.0382	29.857	12360	26.865	BV	0.23
7	6.35	Benzaldehyde	0.0113	8.862	2998	6.516	VB	0.19
8	8.23	Valeraldehyde	0.0266	20.835	7438	16.168	BB	0.25
9	11.87	Hexaldehyde	0.0053	4.133	1263	2.745	BB	0.33

Total Area = 46008.46 Total Height = 4400.375 Total Amount = 0.1278801

MP
07/30/13



Sample Name = **LCS 1.25ug/mL (PS011013-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0038.RAW**
Date Taken (end) = 7/29/2013 8:46:45 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

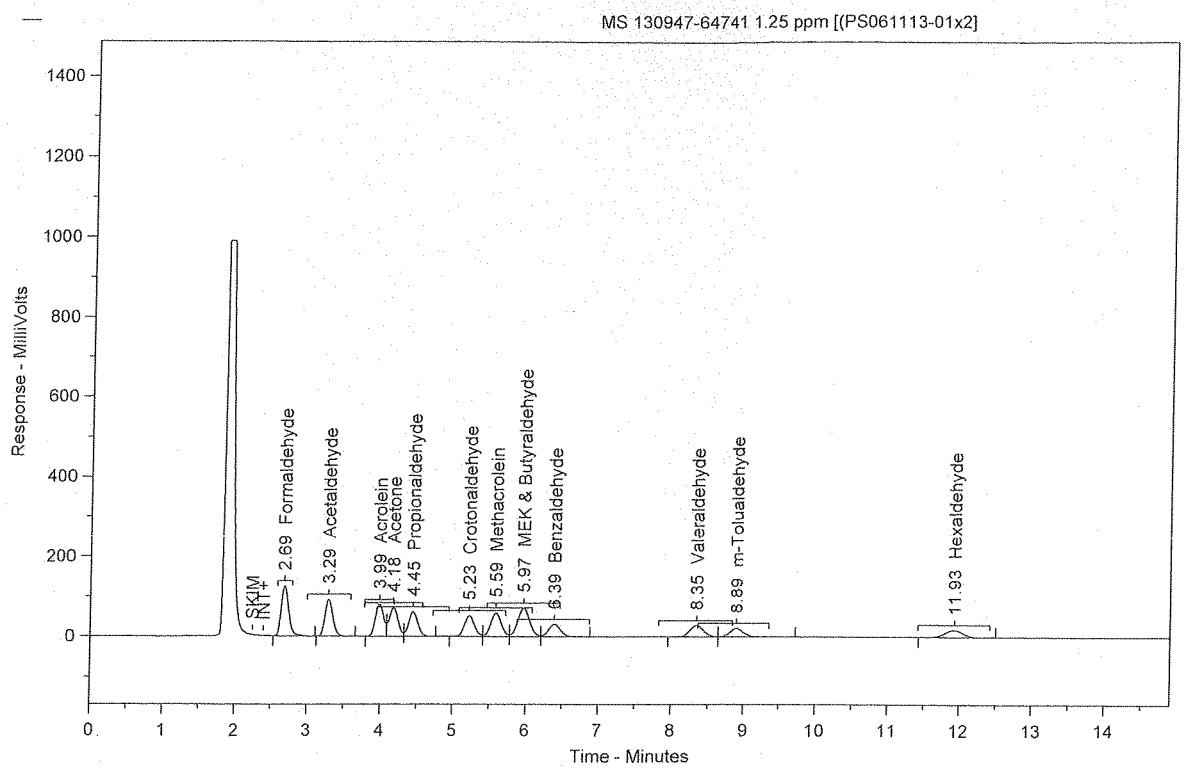
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 38
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.3930	7.806	252894	13.253	BB	0.11
2	3.29	Acetaldehyde	0.3760	7.468	198676	10.412	BB	0.12
3	3.99	Acrolein	0.3877	7.699	185735	9.734	BV	0.14
4	4.18	Acetone	0.4082	8.108	169994	8.909	VV	0.13
5	4.45	Propionaldehyde	0.3837	7.620	158637	8.313	VB	0.14
6	5.23	Crotonaldehyde	0.3774	7.496	143481	7.519	BV	0.15
7	5.60	Methacrolein	0.4196	8.334	168720	8.842	VV	0.15
8	5.98	MEK & Butyraldehyde	0.7335	14.567	237437	12.443	VV	0.17
9	6.40	Benzaldehyde	0.3780	7.507	99988	5.240	VB	0.17
10	8.36	Valeraldehyde	0.4055	8.054	113209	5.933	BV	0.20
11	8.91	m-Tolualdehyde	0.3880	7.706	87553	4.588	VB	0.22
12	11.94	Hexaldehyde	0.3845	7.636	91858	4.814	BB	0.27

Total Area = 1908181 Total Height = 203132.8 Total Amount = 5.034921

07/30/13



Sample Name = **MS 130947-64741 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0039.RAW**
Date Taken (end) = 7/29/2013 9:03:26 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

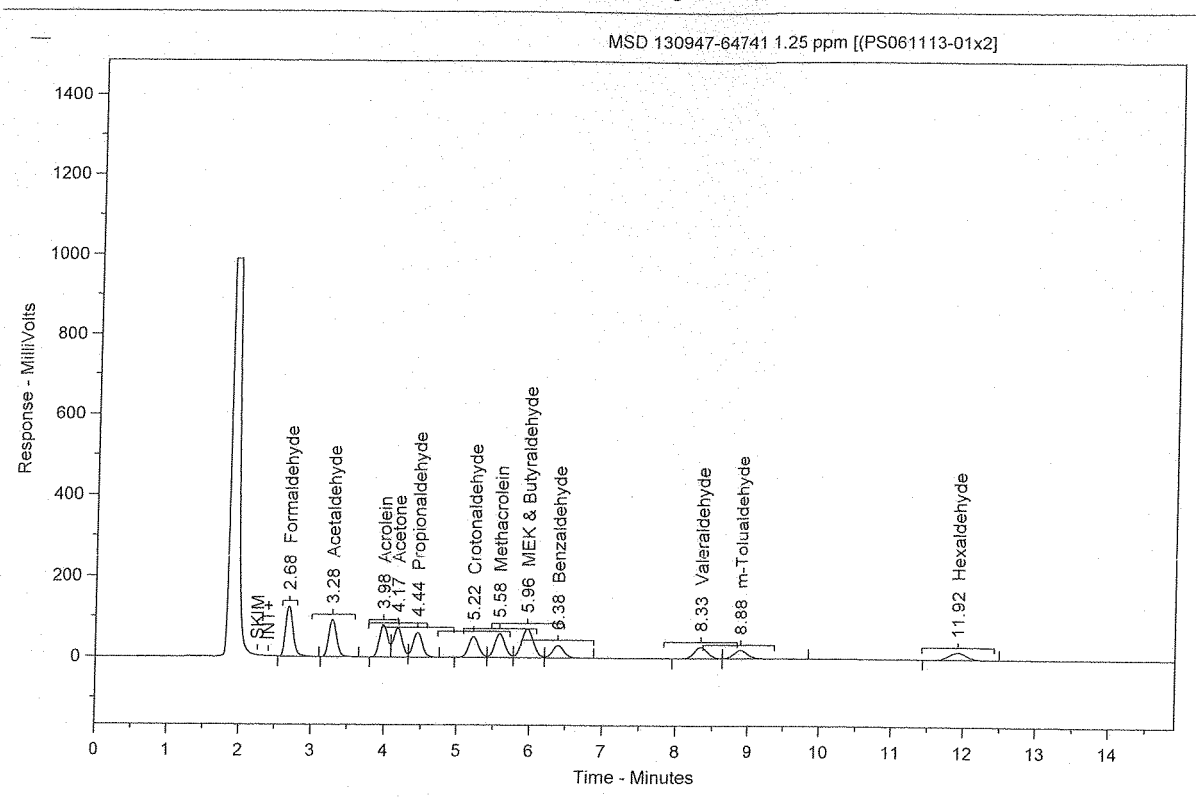
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 39
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	1.3700	7.906	881552	13.382	BB	0.11
2	3.29	Acetaldehyde	1.3209	7.623	697996	10.596	BB	0.12
3	3.99	Acrolein	1.3260	7.653	635328	9.644	BV	0.13
4	4.18	Acetone	1.4509	8.373	604179	9.172	VV	0.13
5	4.45	Propionaldehyde	1.3147	7.588	543632	8.252	VV	0.14
6	5.23	Crotonaldehyde	1.3186	7.610	501288	7.610	VV	0.15
7	5.59	Methacrolein	1.4570	8.408	585855	8.893	VV	0.15
8	5.97	MEK & Butyraldehyde	2.4977	14.414	808555	12.274	VV	0.17
9	6.39	Benzaldehyde	1.3127	7.576	347245	5.271	VB	0.17
10	8.35	Valeraldehyde	1.3273	7.660	370563	5.625	BV	0.20
11	8.89	m-Tolualdehyde	1.3176	7.604	297333	4.514	VB	0.21
12	11.93	Hexaldehyde	1.3142	7.584	313991	4.766	BB	0.27

Total Area = 6587518 Total Height = 706034.6 Total Amount = 17.32757

HP
07/30/13



Sample Name = **MSD 130947-64741 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0040.RAW**
Date Taken (end) = 7/29/2013 9:20:05 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

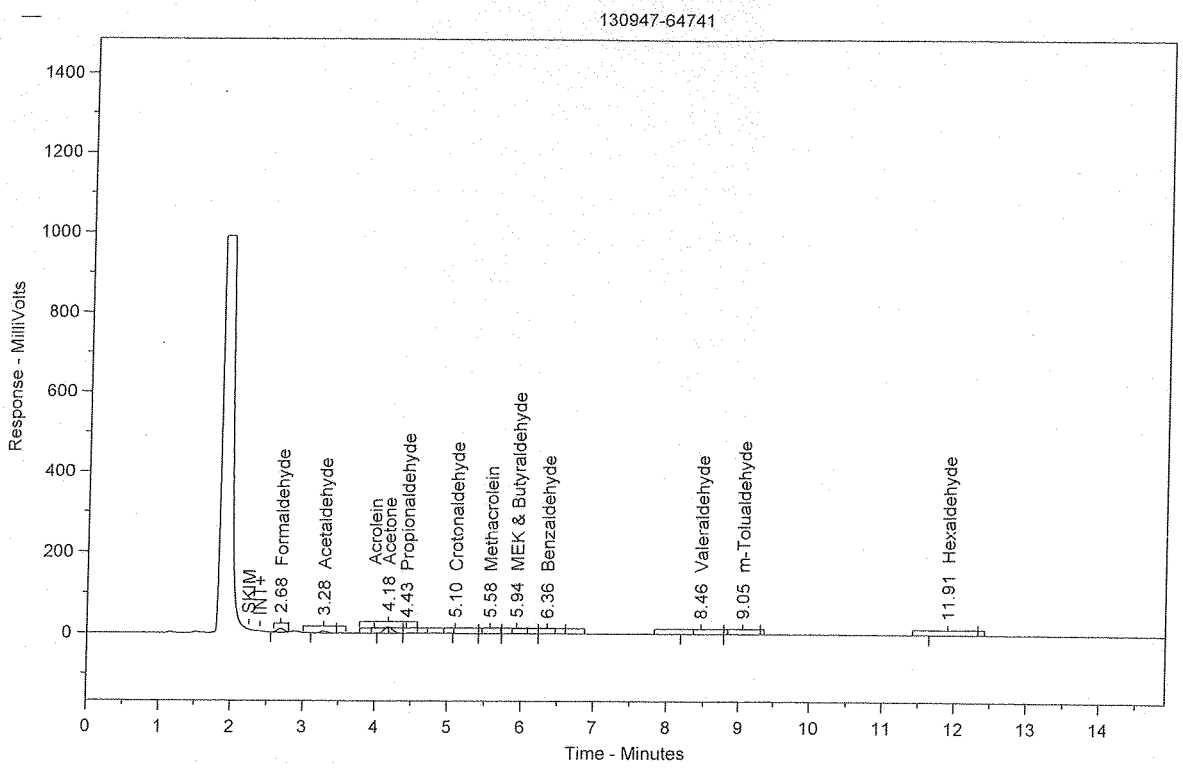
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 40
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	1.3677	7.880	880079	13.347	BB	0.11
2	3.28	Acetaldehyde	1.3175	7.591	696196	10.558	BB	0.12
3	3.98	Acrolein	1.3253	7.636	634981	9.630	BV	0.13
4	4.17	Acetone	1.4572	8.396	606801	9.202	VV	0.13
5	4.44	Propionaldehyde	1.3145	7.573	543536	8.243	VV	0.14
6	5.22	Crotonaldehyde	1.3197	7.604	501705	7.609	VV	0.15
7	5.58	Methacrolein	1.4530	8.371	584262	8.861	VV	0.15
8	5.96	MEK & Butyraldehyde	2.5079	14.449	811876	12.313	VV	0.17
9	6.38	Benzaldehyde	1.3163	7.584	348207	5.281	VB	0.17
10	8.33	Valeraldehyde	1.3300	7.662	371297	5.631	BV	0.20
11	8.88	m-Tolualdehyde	1.3311	7.669	300401	4.556	VB	0.22
12	11.92	Hexaldehyde	1.3165	7.585	314546	4.770	BB	0.27

Total Area = 6593886 Total Height = 707263.3 Total Amount = 17.35678

HP
07/30/13



Sample Name = **130947-64741** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0041.RAW**
Date Taken (end) = 7/29/2013 9:36:45 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

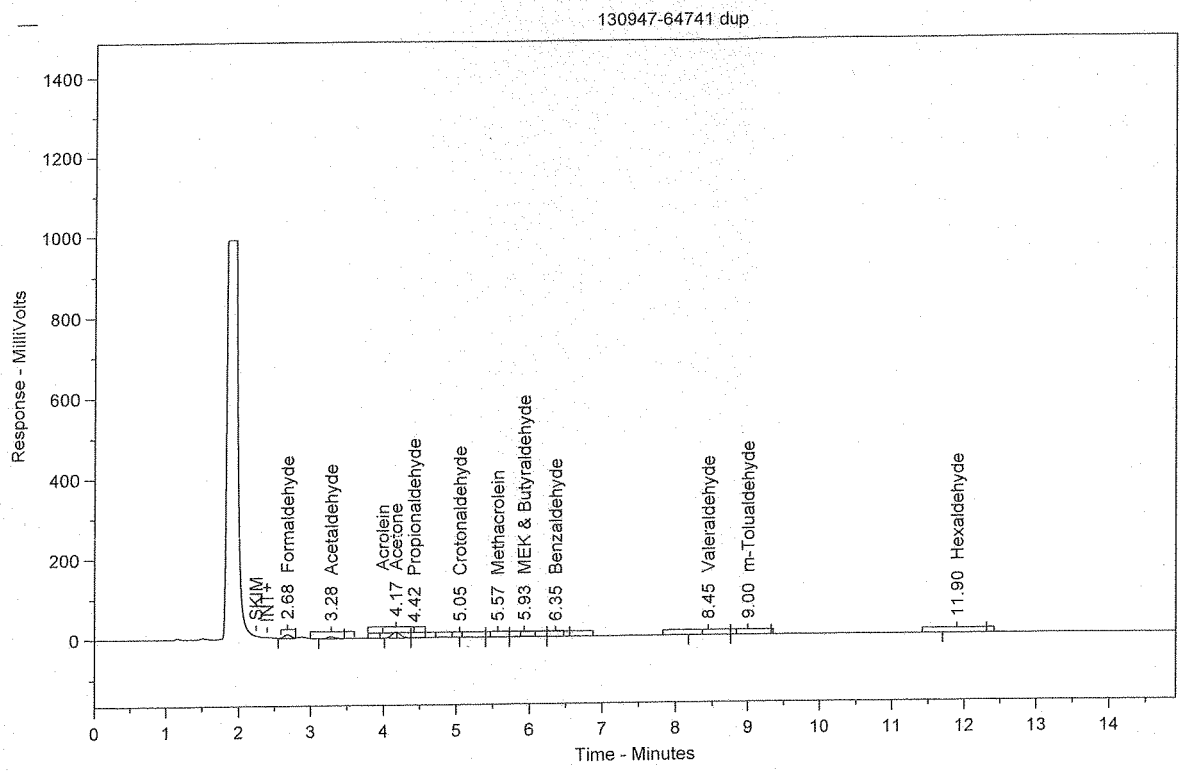
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 41
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0957	14.654	61550	21.724	BB	0.10
2	3.28	Acetaldehyde	0.0624	9.566	32994	11.645	BB	0.12
3	4.18	Acetone	0.3092	47.362	128736	45.437	BV	0.13
4	4.43	Propionaldehyde	0.0153	2.340	6316	2.229	VB	0.12
5	5.10	Crotonaldehyde	0.0186	2.846	7063	2.493	BV	0.19
6	5.58	Methacrolein	0.0220	3.370	8845	3.122	VV	0.14
7	5.94	MEK & Butyraldehyde	0.0648	9.930	20982	7.406	VV	0.17
8	6.36	Benzaldehyde	0.0048	0.743	1283	0.453	VB	0.24
9	8.46	Valeraldehyde	0.0349	5.340	9732	3.435	BV	0.26
10	9.05	m-Tolualdehyde	0.0132	2.021	2977	1.051	VB	0.31
11	11.91	Hexaldehyde	0.0119	1.828	2851	1.006	BB	0.30

Total Area = 283329.2 Total Height = 33790.96 Total Amount = 0.6527441

HP
07/30/13



Sample Name = **130947-64741 dup**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0042.RAW**
Date Taken (end) = 7/29/2013 9:53:23 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 42
Dilution Factor = 1

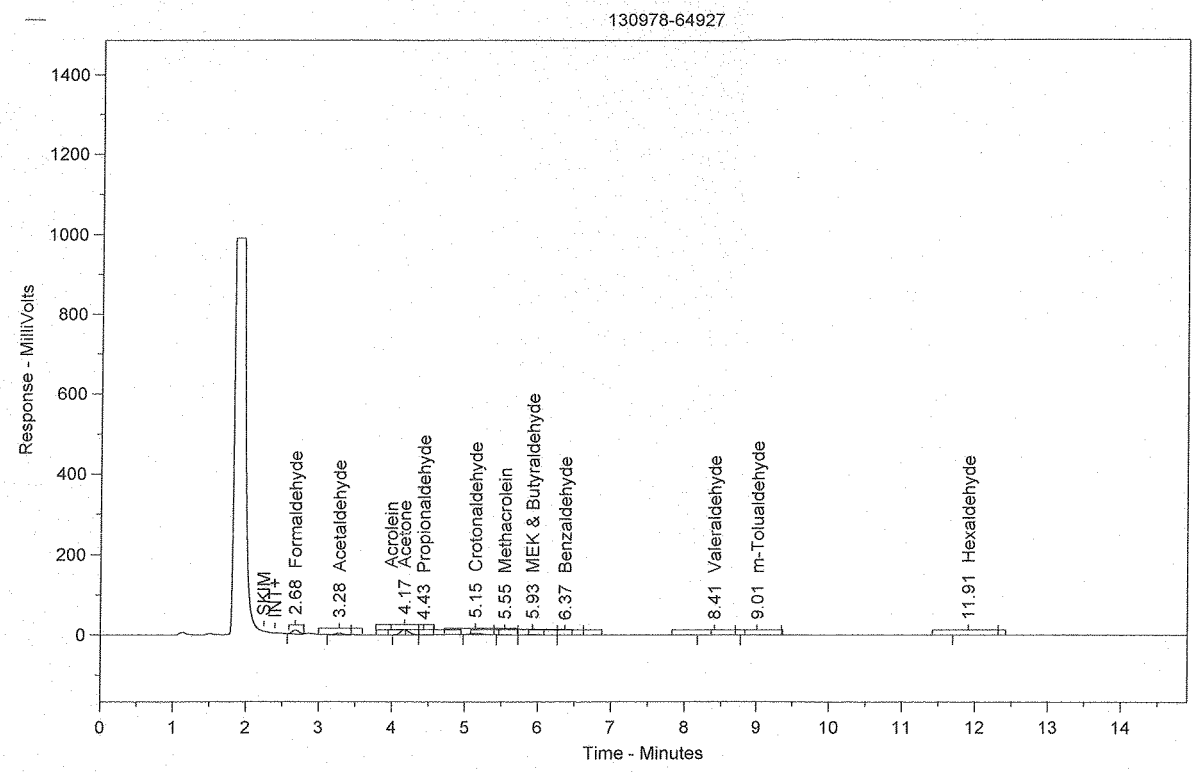
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0936	14.227	60224	21.296	BB	0.10
2	3.28	Acetaldehyde	0.0611	9.286	32280	11.415	BB	0.12
3	4.17	Acetone	0.3060	46.511	127413	45.055	BV	0.13
4	4.42	Propionaldehyde	0.0147	2.238	6087	2.152	VB	0.11
5	5.05	Crotonaldehyde	0.0190	2.894	7237	2.559	BV	0.20
6	5.57	Methacrolein	0.0218	3.313	8763	3.099	VV	0.14
7	5.93	MEK & Butyraldehyde	0.0675	10.264	21859	7.730	VV	0.17
8	6.35	Benzaldehyde	0.0040	0.615	1070	0.378	VB	0.22
9	8.45	Valeraldehyde	0.0354	5.382	9885	3.495	BV	0.24
10	9.00	m-Tolualdehyde	0.0232	3.529	5240	1.853	VB	0.32
11	11.90	Hexaldehyde	0.0115	1.742	2738	0.968	BB	0.30

Total Area = 282796

Total Height = 33439.94

Total Amount = 0.6578631

HP 07/30/13



Sample Name = **130978-64927** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0043.RAW**
Date Taken (end) = 7/29/2013 10:10:02 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0043.BND
Method Description=TO-11A Carbonyls

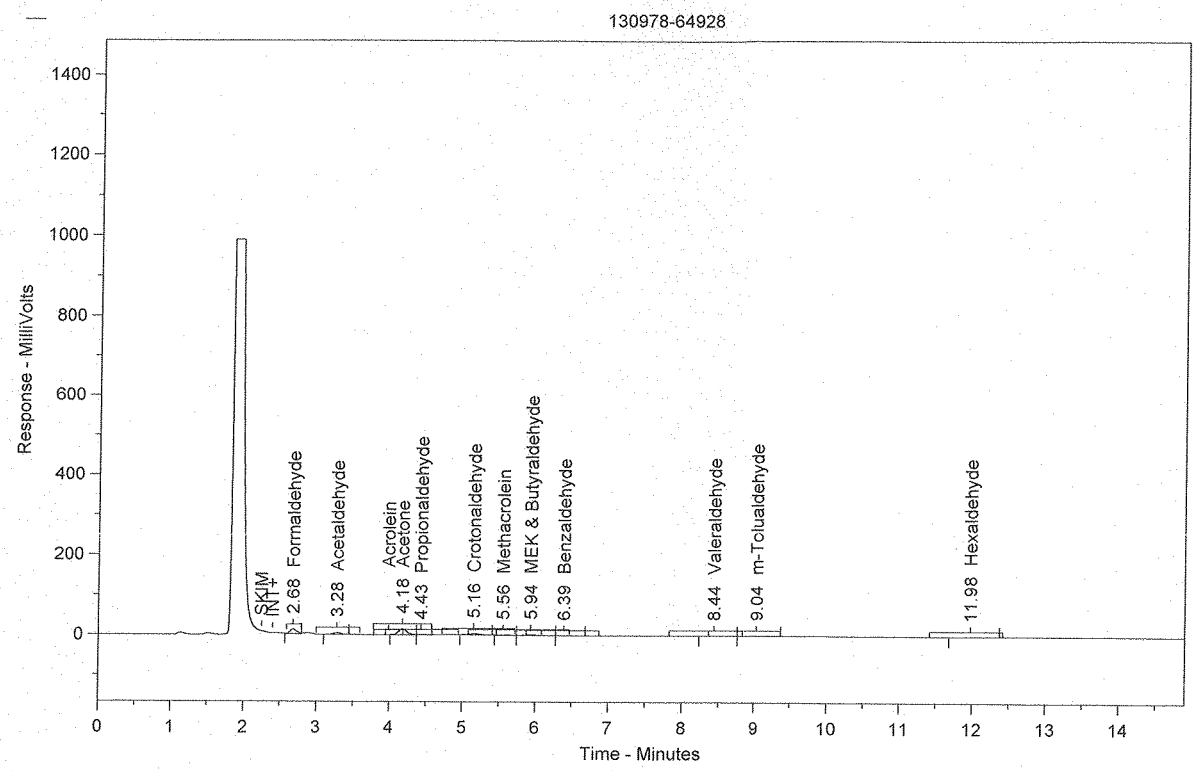
Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0043.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 43
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0958	14.638	61635	21.836	BB	0.10
2	3.28	Acetaldehyde	0.0506	7.732	26734	9.471	BB	0.11
3	4.17	Acetone	0.2740	41.878	114113	40.428	BV	0.13
4	4.43	Propionaldehyde	0.0203	3.097	8379	2.969	VB	0.12
5	5.15	Crotonaldehyde	0.0812	12.412	30877	10.939	BB	0.18
6	5.55	Methacrolein	0.0231	3.530	9290	3.291	BV	0.19
7	5.93	MEK & Butyraldehyde	0.0545	8.330	17647	6.252	VV	0.17
8	6.37	Benzaldehyde	0.0041	0.628	1087	0.385	VB	0.21
9	8.41	Valeraldehyde	0.0169	2.585	4723	1.673	BB	0.28
10	9.01	m-Tolualdehyde	0.0230	3.511	5186	1.837	BB	0.26
11	11.91	Hexaldehyde	0.0109	1.659	2593	0.919	BB	0.30

Total Area = 282261.9 Total Height = 33789.15 Total Amount = 0.6543698

HP
07/30/13



Sample Name = **130978-64928** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0044.RAW**
Date Taken (end) = 7/29/2013 10:26:40 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0044.BND
Method Description=TO-11A Carbonyls

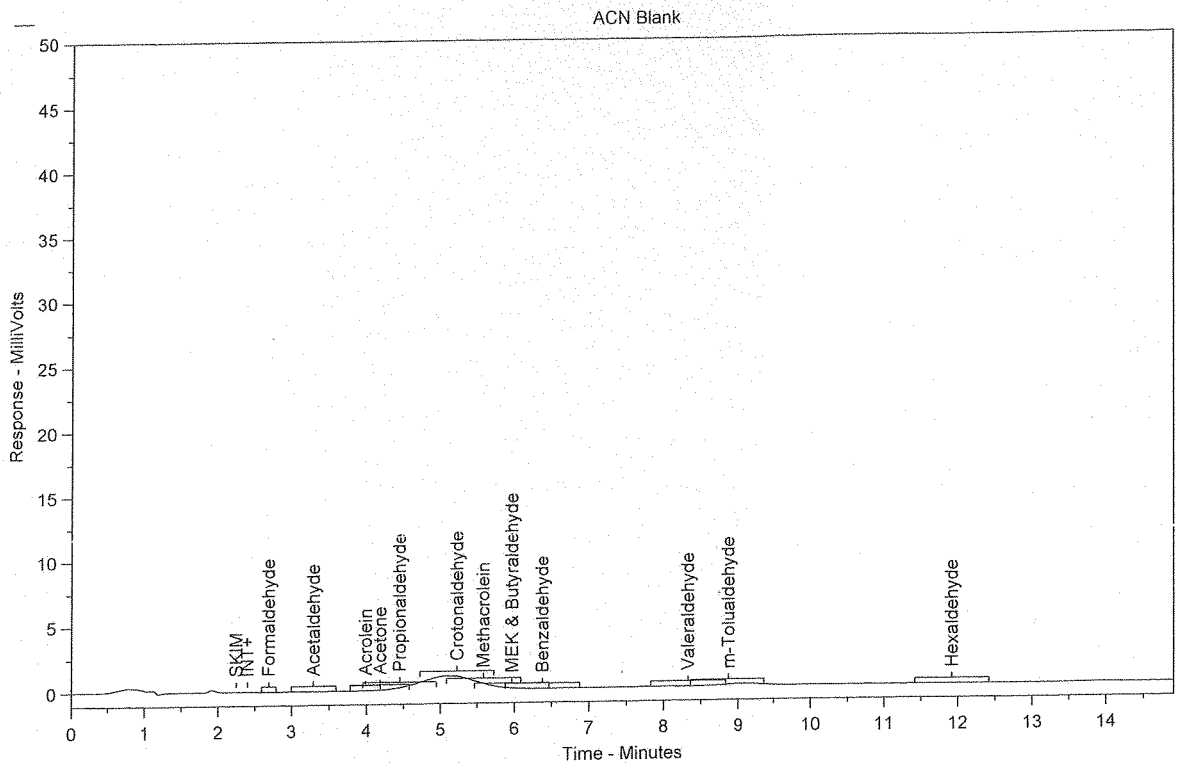
Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0044.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 44
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.1123	14.981	72279	22.272	BB	0.10
2	3.28	Acetaldehyde	0.0697	9.290	36809	11.342	BB	0.12
3	4.18	Acetone	0.3047	40.634	126870	39.094	BV	0.13
4	4.43	Propionaldehyde	0.0237	3.165	9814	3.024	VB	0.13
5	5.16	Crotonaldehyde	0.0827	11.024	31424	9.683	BB	0.18
6	5.56	Methacrolein	0.0232	3.096	9335	2.877	BV	0.19
7	5.94	MEK & Butyraldehyde	0.0634	8.454	20519	6.323	VV	0.18
8	6.39	Benzaldehyde	0.0039	0.526	1043	0.321	VB	0.22
9	8.44	Valeraldehyde	0.0246	3.278	6863	2.115	BV	0.28
10	9.04	m-Tolualdehyde	0.0280	3.738	6325	1.949	VB	0.25
11	11.98	Hexaldehyde	0.0136	1.813	3248	1.001	BB	0.28

Total Area = 324529 Total Height = 38533.21 Total Amount = 0.7497994

MF 07/30/13



Sample Name = **ACN Blank**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0045.RAW**
Date Taken (end) = 7/29/2013 10:43:18 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 45
Dilution Factor = 1

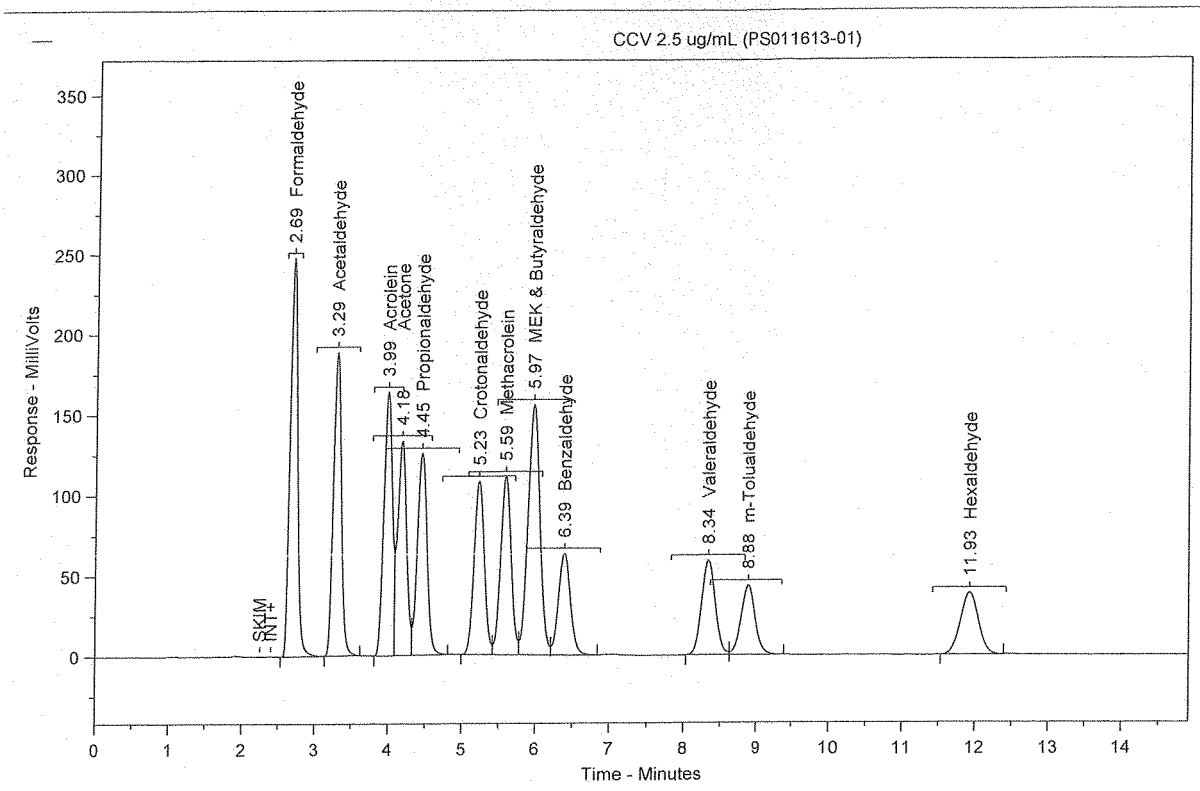
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0

Total Height = 0

Total Amount = 0

JW 07/30/13



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0046.RAW**
Date Taken (end) = 7/29/2013 10:59:56 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

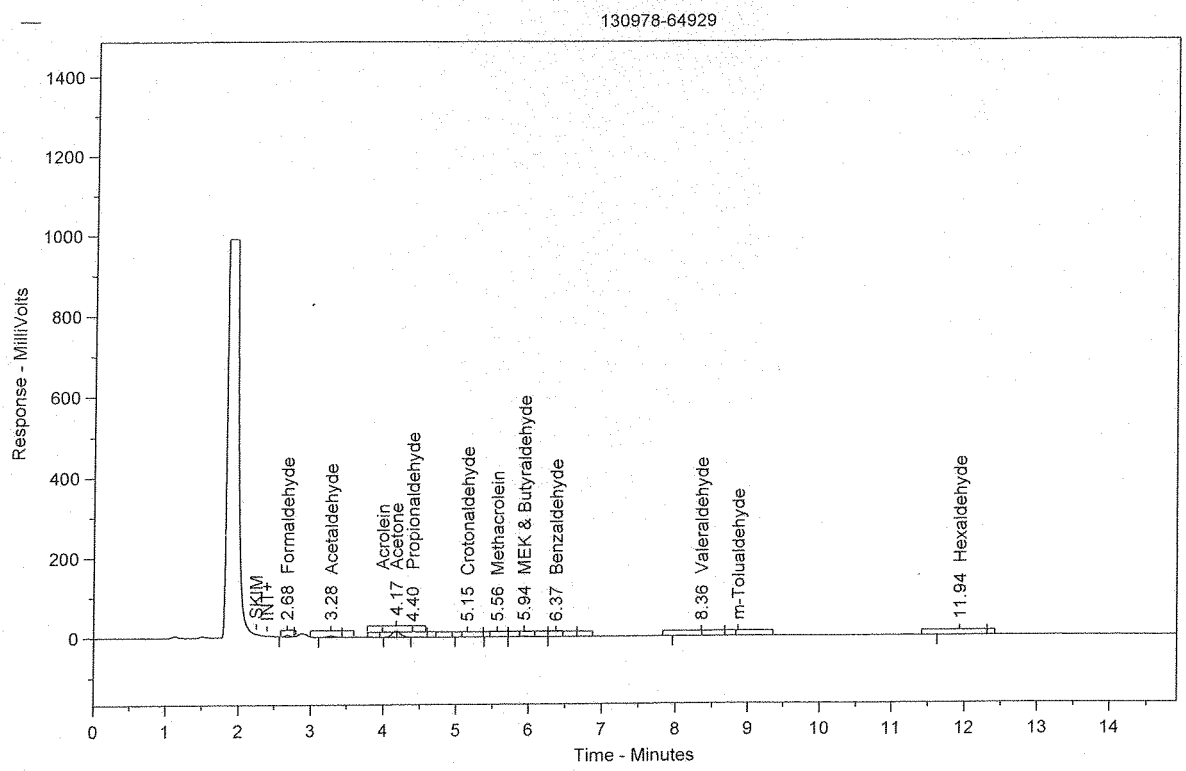
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 46
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.7225	7.683	1751824	13.057	SBB	0.11
2	3.29	Acetaldehyde	2.7259	7.693	1440379	10.736	TBB	0.12
3	3.99	Acrolein	2.7408	7.735	1313198	9.788	BV	0.13
4	4.18	Acetone	2.7419	7.738	1141751	8.510	VV	0.13
5	4.45	Propionaldehyde	2.7206	7.678	1124946	8.385	VB	0.14
6	5.23	Crotonaldehyde	2.7347	7.718	1039634	7.749	BV	0.15
7	5.59	Methacrolein	2.7487	7.757	1105257	8.238	VV	0.15
8	5.97	MEK & Butyraldehyde	5.4492	15.379	1764031	13.148	VV	0.17
9	6.39	Benzaldehyde	2.6894	7.590	711424	5.303	VB	0.17
10	8.34	Valeraldehyde	2.7361	7.722	763870	5.694	BV	0.20
11	8.88	m-Tolualdehyde	2.6905	7.593	607172	4.526	VB	0.22
12	11.93	Hexaldehyde	2.7332	7.714	653021	4.867	BB	0.27

Total Area = 1.341651E+07 Total Height = 1435328 Total Amount = 35.43333

HP 07/30/13



Sample Name = **130978-64929**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0047.RAW**
Date Taken (end) = 7/29/2013 11:16:34 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0047.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0047.BND
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 47
Dilution Factor = 1

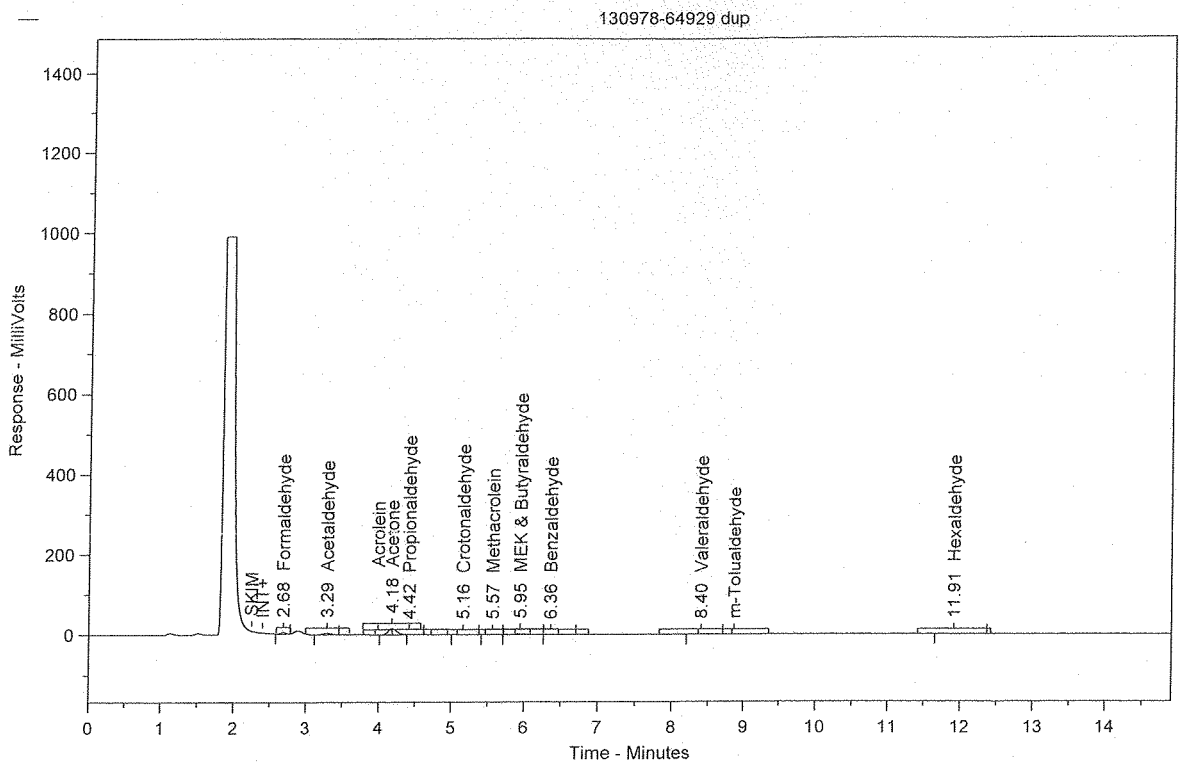
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0378	6.915	24293	10.573	BB	0.09
2	3.28	Acetaldehyde	0.0566	10.358	29882	13.006	BB	0.12
3	4.17	Acetone	0.3130	57.339	130354	56.734	SBB	0.13
4	4.40	Propionaldehyde	0.0157	2.877	6495	2.827	TBB	0.11
5	5.15	Crotonaldehyde	0.0105	1.932	4009	1.745	BB	0.20
6	5.56	Methacrolein	0.0105	1.916	4207	1.831	BV	0.15
7	5.94	MEK & Butyraldehyde	0.0621	11.373	20099	8.748	VV	0.17
8	6.37	Benzaldehyde	0.0045	0.818	1181	0.514	VB	0.23
9	8.36	Valeraldehyde	0.0199	3.640	5547	2.414	BB	0.35
10	11.94	Hexaldehyde	0.0155	2.833	3695	1.608	BB	0.27

Total Area = 229762.8

Total Height = 27462.08

Total Amount = 0.5459465

HP
07/30/13



Sample Name = **130978-64929 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0048.RAW**
Date Taken (end) = 7/29/2013 11:33:12 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

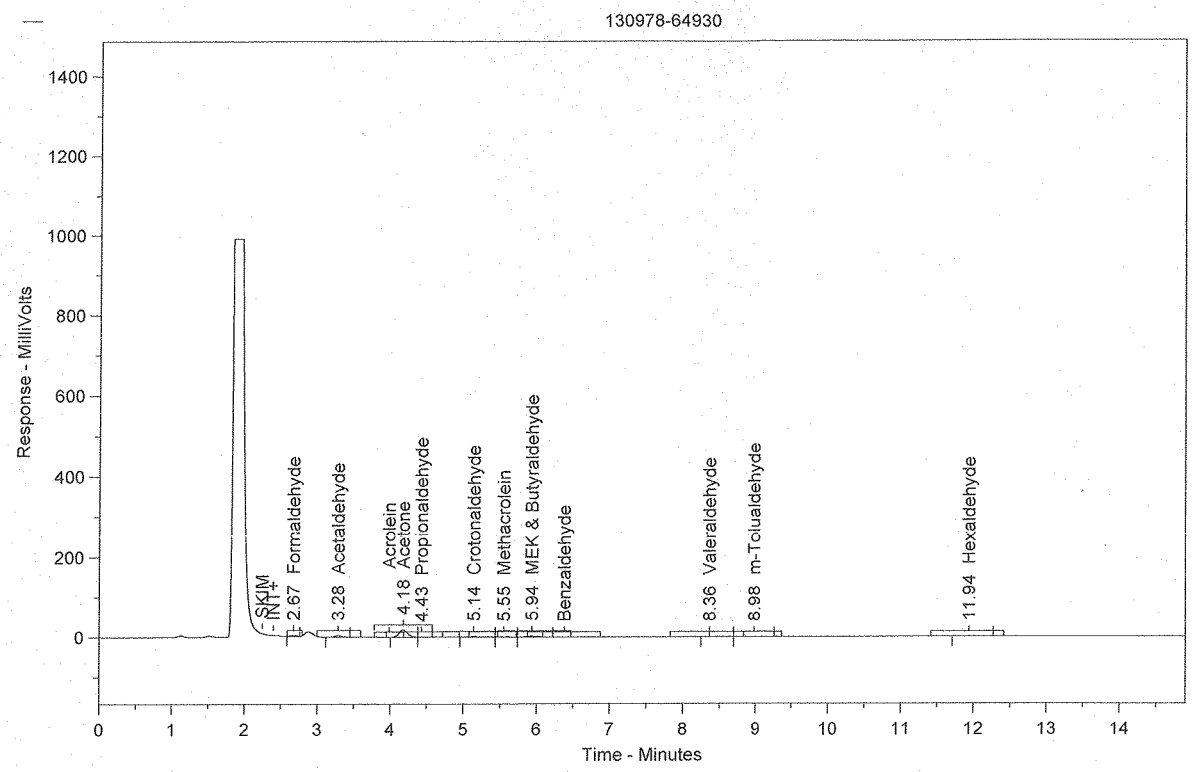
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 48
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0367	6.709	23616	10.279	BB	0.09
2	3.29	Acetaldehyde	0.0563	10.293	29750	12.949	BB	0.12
3	4.18	Acetone	0.3135	57.318	130558	56.827	SBB	0.13
4	4.42	Propionaldehyde	0.0162	2.967	6711	2.921	TBB	0.11
5	5.16	Crotonaldehyde	0.0100	1.826	3796	1.652	BB	0.21
6	5.57	Methacrolein	0.0099	1.804	3969	1.727	BV	0.15
7	5.95	MEK & Butyraldehyde	0.0650	11.877	21032	9.154	VV	0.17
8	6.36	Benzaldehyde	0.0046	0.836	1210	0.527	VB	0.26
9	8.40	Valeraldehyde	0.0194	3.544	5412	2.356	BB	0.28
10	11.91	Hexaldehyde	0.0155	2.825	3692	1.607	BB	0.28

Total Area = 229745.1 Total Height = 27375.18 Total Amount = 0.5469944

JP 07/30/13



Sample Name = **130978-64930** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0049.RAW**
Date Taken (end) = 7/29/2013 11:49:53 PM

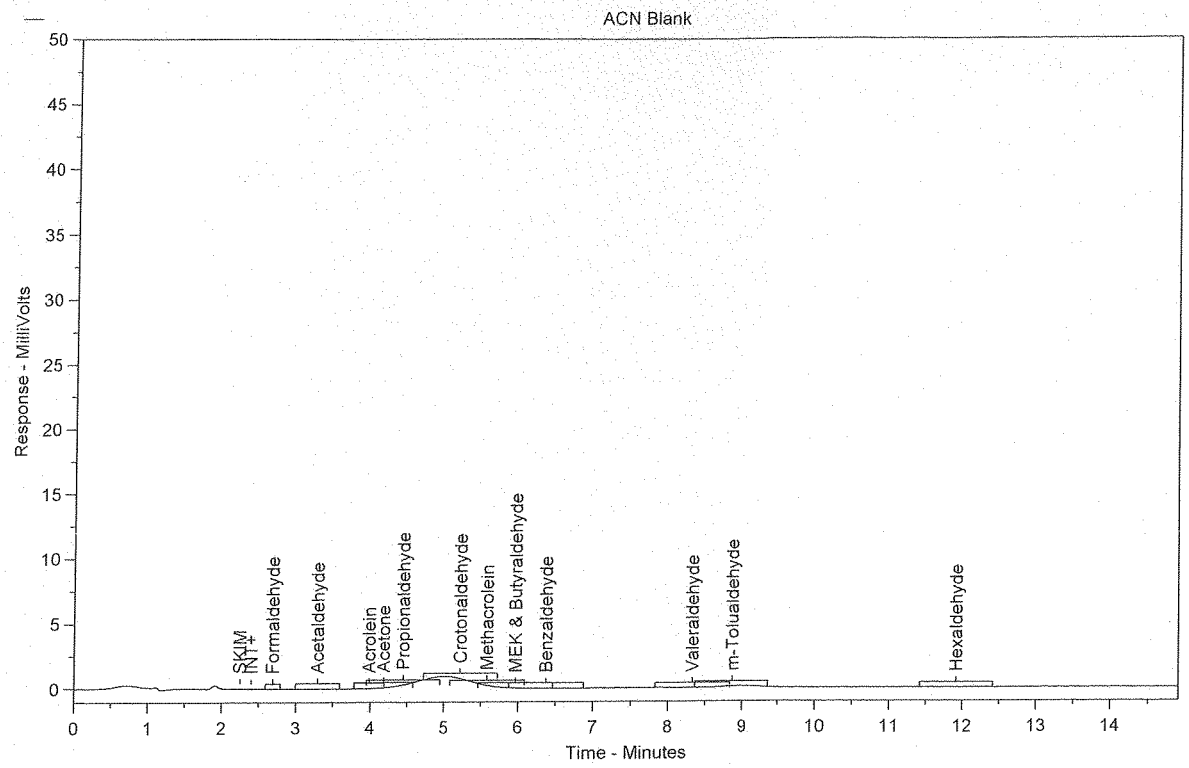
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 49
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.0207	3.218	13347	5.093	BB	0.09
2	3.28	Acetaldehyde	0.0474	7.350	25035	9.553	BB	0.12
3	4.18	Acetone	0.3673	56.975	152930	58.359	BV	0.13
4	4.43	Propionaldehyde	0.0208	3.230	8608	3.285	VB	0.12
5	5.14	Crotonaldehyde	0.0586	9.085	22263	8.496	BV	0.31
6	5.55	Methacrolein	0.0171	2.656	6883	2.627	VV	0.19
7	5.94	MEK & Butyraldehyde	0.0672	10.419	21740	8.296	VB	0.16
8	8.36	Valeraldehyde	0.0159	2.464	4435	1.692	BV	0.29
9	8.98	m-Tolualdehyde	0.0212	3.294	4791	1.828	VB	0.33
10	11.94	Hexaldehyde	0.0084	1.309	2017	0.770	BB	0.33

Total Area = 262048.8 Total Height = 29419.17 Total Amount = 0.6445843



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0050.RAW**
Date Taken (end) = 7/30/2013 12:06:33 AM

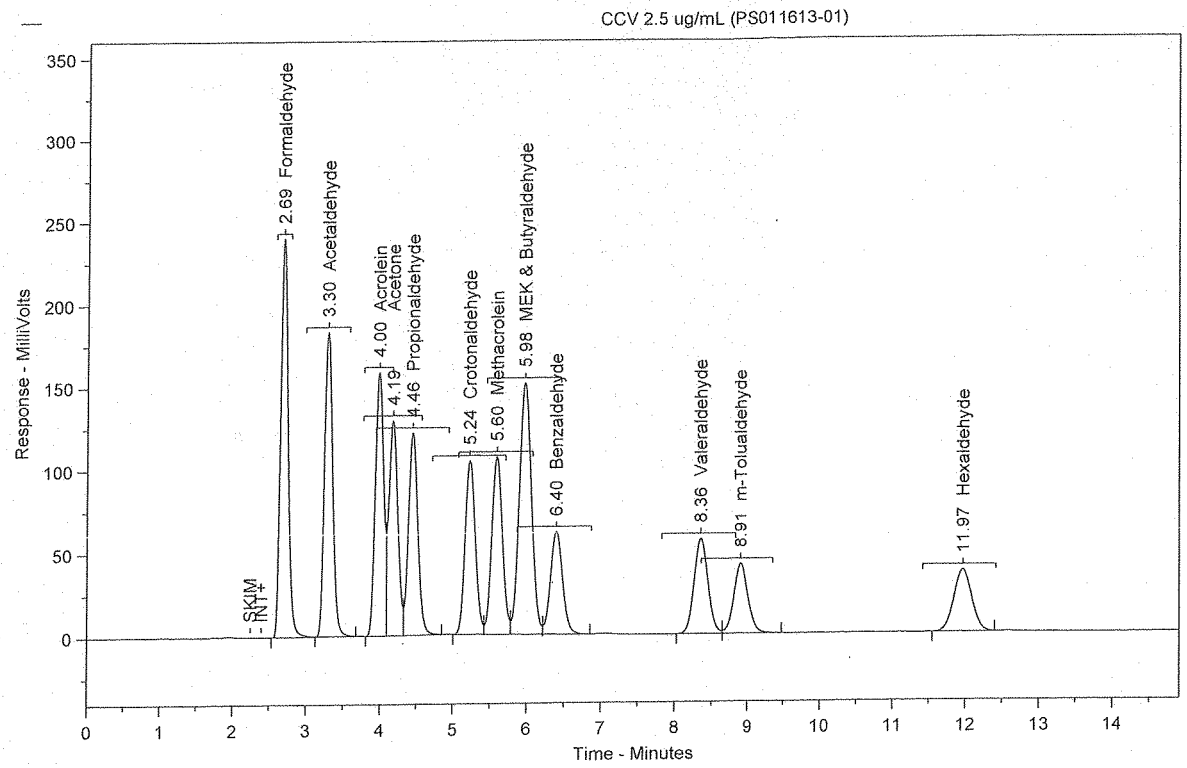
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 50
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



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0051.RAW**
Date Taken (end) = 7/30/2013 12:23:12 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 51
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.6320	7.654	1693626	13.015	SBB	0.11
2	3.30	Acetaldehyde	2.6445	7.690	1397389	10.739	TBB	0.12
3	4.00	Acrolein	2.6787	7.789	1283426	9.863	BV	0.14
4	4.19	Acetone	2.6278	7.641	1094247	8.409	VV	0.13
5	4.46	Propionaldehyde	2.6353	7.663	1089685	8.374	VB	0.14
6	5.24	Crotonaldehyde	2.6478	7.700	1006604	7.736	BV	0.15
7	5.60	Methacrolein	2.6423	7.683	1062460	8.165	VV	0.15
8	5.98	MEK & Butyraldehyde	5.3267	15.490	1724400	13.252	VV	0.17
9	6.40	Benzaldehyde	2.6088	7.586	690105	5.303	VB	0.17
10	8.36	Valeraldehyde	2.6621	7.741	743205	5.711	BV	0.20
11	8.91	m-Tolualdehyde	2.6311	7.651	593759	4.563	VB	0.22
12	11.97	Hexaldehyde	2.6521	7.712	633650	4.870	BB	0.27

Total Area = 1.301255E+07 Total Height = 1390102 Total Amount = 34.38918

File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\072913 (TO-11).SEQ
File Date = 7/29/2013 9:19:38 AM
Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	072913.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	072913.0002.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS061113-01)	2	1
3	072913.0003.raw	061113 TO-11A.MET	SS 1.25 ppm (PS011613-01)	3	1
4	072913.0004.raw	061113 TO-11A.MET	TO-11 Method Blank	4	1
5	072913.0005.raw	061113 TO-11A.MET	LCS Blank	5	1
6	072913.0006.raw	061113 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	6	1
7	072913.0007.raw	061113 TO-11A.MET	MS 130935-64678 1.25 ppm [(PS061113-01x2]	7	1
8	072913.0008.raw	061113 TO-11A.MET	MSD 130935-64678 1.25 ppm [(PS061113-01x2]	8	1
9	072913.0009.raw	061113 TO-11A.MET	130935-64678	9	1
10	072913.0010.raw	061113 TO-11A.MET	130935-64678 dup	10	1
11	072913.0011.raw	061113 TO-11A.MET	130936-64679	11	1
12	072913.0012.raw	061113 TO-11A.MET	ACN Blank	12	1
13	072913.0013.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	072913.0014.raw	061113 TO-11A.MET	130975-64924	14	1
15	072913.0015.raw	061113 TO-11A.MET	130975-64924 dup	15	1
16	072913.0016.raw	061113 TO-11A.MET	130975-64916	16	1
17	072913.0017.raw	061113 TO-11A.MET	130975-64917	17	1
18	072913.0018.raw	061113 TO-11A.MET	130975-64918	18	1
19	072913.0019.raw	061113 TO-11A.MET	130975-64919	19	1
20	072913.0020.raw	061113 TO-11A.MET	130975-64920	20	1
21	072913.0021.raw	061113 TO-11A.MET	130975-64921	21	1
22	072913.0022.raw	061113 TO-11A.MET	130975-64922	22	1
23	072913.0023.raw	061113 TO-11A.MET	ACN Blank	23	1
24	072913.0024.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	24	1
25	072913.0025.raw	061113 TO-11A.MET	130975-64923	25	1
26	072913.0026.raw	061113 TO-11A.MET	130975-64923 dup	26	1
27	072913.0027.raw	061113 TO-11A.MET	130983-64964	27	1
28	072913.0028.raw	061113 TO-11A.MET	130983-64965	28	1
29	072913.0029.raw	061113 TO-11A.MET	130983-64966	29	1
30	072913.0030.raw	061113 TO-11A.MET	130983-64967	30	1
31	072913.0031.raw	061113 TO-11A.MET	130947-64738	31	1
32	072913.0032.raw	061113 TO-11A.MET	130947-64739	32	1
33	072913.0033.raw	061113 TO-11A.MET	130947-64740	33	1
34	072913.0034.raw	061113 TO-11A.MET	ACN Blank	34	1
35	072913.0035.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	35	1
36	072913.0036.raw	061113 TO-11A.MET	TO-11 Method Blank	36	1
37	072913.0037.raw	061113 TO-11A.MET	LCS Blank	37	1
38	072913.0038.raw	061113 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	38	1
39	072913.0039.raw	061113 TO-11A.MET	MS 130947-64741 1.25 ppm [(PS061113-01x2]	39	1
40	072913.0040.raw	061113 TO-11A.MET	MSD 130947-64741 1.25 ppm [(PS061113-01x2]	40	1
41	072913.0041.raw	061113 TO-11A.MET	130947-64741	41	1
42	072913.0042.raw	061113 TO-11A.MET	130947-64741 dup	42	1
43	072913.0043.raw	061113 TO-11A.MET	130978-64927	43	1
44	072913.0044.raw	061113 TO-11A.MET	130978-64928	44	1
45	072913.0045.raw	061113 TO-11A.MET	ACN Blank	45	1
46	072913.0046.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	46	1
47	072913.0047.raw	061113 TO-11A.MET	130978-64929	47	1
48	072913.0048.raw	061113 TO-11A.MET	130978-64929 dup	48	1
49	072913.0049.raw	061113 TO-11A.MET	130978-64930	49	1
50	072913.0050.raw	061113 TO-11A.MET	ACN Blank	50	1
51	072913.0051.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	51	1