Atmospheric Analysis & Consulting, Inc.

Client	: SWAPE
Client Project Name	: Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No.	: NA
AAC Project No.	: 131067
Reporting Date	: 08/16/2013

On August 13, 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 W2 DNPH	131067-65431
U-2 Virbac DNPH	131067-65432
D-1 W8 DNPH	131067-65433
D-2 W6 DNPH	131067-65434

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 56 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

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Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **131067** **Received By: J. Zachman**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
8/13/20103 1010	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 W2 DNPH	Tube	8/10/2013	Client	65431	TO-11A
8/13/20103 1010	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 Virbac DNPH	Tube	8/10/2013	Client	65432	TO-11A
8/13/20103 1010	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W8 DNPH	Tube	8/10/2013	Client	65433	TO-11A
8/13/20103 1010	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 W6 DNPH	Tube	8/10/2013	Client	65434	TO-11A

TURN AROUND TIME: Normal (10days)

Lab Due Date: 8/20/2013

Total Samples: 4

REMARKS:

Samples received at 5.2*C. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."

AA# 131067

AIR SAMPLING PUMP CALIBRATION LOG

Bridgeton Sanitary Landfill Air Quality Assessment

COMPLETED BY: John Blank

DATE: August 10th, 2013

PAGE: 1 OF 1

CALIBRATION INSTRUMENT : ***Biose Defender510***

INITIAL PUMP SETUP (PRE-SAMPLING FLOW CHECK)

Sample ID e.g. acetaldehyde	Analyte	SKC Tube ID 226-120	Air Pump Serial No.	START		END		Total Volume Liters
				Flow Rate (L/min)	Start Time (24 Hour)	Flow Rate (L/min)	Stop Time (24 Hour)	
U-1 W2	Aldehydes	4440600656	71526	1.125	7:15:00	1.195	11:15:00	278.4
U-2 Virbac	Aldehydes	4440600655	59912	1.096	7:30:00	1.253	11:30:00	281.88
D-1 W8	Aldehydes	4440600653	67835	1.172	7:55:00	1.213	11:55:00	286.2
D-2 W6	Aldehydes	4440600654	67385	1.183	8:10:00	1.164	12:10:00	281.64

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

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 131067

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

Date: **August 10th** 2013

Project Manager: PAUL ROSENFELD, PH.D.

Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: **John Blank**

Sampler Signature: John 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	Tube #	Volume
65431	U-1 W2	DNPH	Tube	August 10th	4 Hr			X											Tube # 4440600656	278.4 L
65432	U-2 Virbac	DNPH	Tube	August 10th	4 Hr			X											Tube # 4440600655	281.88 L
65433	D-1 W8	DNPH	Tube	August 10th	4 Hr			X											Tube # 4440600653	286.2 L
65434	D-2 W6	DNPH	Tube	August 10th	4 Hr			X											Tube # 4440600654	281.64 L

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:	Date:	Time:	Received By:	Date:	Time:
John Blank	August 10th, 2013	12 Noon		8/13/13	1010

5.2°C

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. : 131067
Analyst : EG/HP
Units : ppbv

Sampling Date (s) : 08/10/2013
Receiving Date : 08/13/2013
Analysis Date : 08/15/2013
Reporting Date : 08/16/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W2 DNPH	131067-65431	<SRL	0.267	<SRL	1.02	<SRL	<SRL	<SRL	0.158	<SRL	<SRL	<SRL	<SRL
SRL		0.219	0.150	0.117	0.113	0.113	0.094	0.094	0.091	0.062	0.076	0.055	0.066
U-2 Virbac DNPH	131067-65432	0.250	0.268	<SRL	1.15	<SRL	0.182	<SRL	0.178	<SRL	<SRL	<SRL	<SRL
SRL		0.217	0.148	0.116	0.112	0.112	0.093	0.093	0.090	0.061	0.076	0.054	0.065
D-1 W8 DNPH	131067-65433	0.263	0.443	<SRL	1.32	<SRL	<SRL	<SRL	0.178	<SRL	<SRL	<SRL	<SRL
SRL		0.213	0.145	0.114	0.110	0.110	0.091	0.091	0.089	0.060	0.074	0.053	0.064
D-2 W6 DNPH	131067-65434	0.840	0.516	<SRL	0.427	0.127	0.596	<SRL	0.178	<SRL	<SRL	<SRL	<SRL
SRL		0.217	0.148	0.116	0.112	0.112	0.093	0.093	0.090	0.061	0.076	0.054	0.065

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

Marcus Hueppe
Laboratory Director

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Atmospheric Analysis & Consulting, Inc.

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

Client	: SWAPE	Sampling Date (s)	: 08/10/2013
Client Project Name	: Bridgetown Sanitary Landfill Air Quality Assessment	Receiving Date	: 08/13/2013
AAC Project No.	: 131067	Analysis Date	: 08/15/2013
Analyst	: EG/HP	Reporting Date	: 08/16/2013
Units	: ug/m^3		

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W2 DNPH	131067-65431	<SRL	0.482	<SRL	2.42	<SRL	<SRL	<SRL	0.467	<SRL	<SRL	<SRL	<SRL
SRL		0.269	0.269	0.269	0.269	0.269	0.269	0.269	0.269	0.269	0.269	0.269	0.269
U-2 Virbac DNPH	131067-65432	0.308	0.483	<SRL	2.73	<SRL	0.521	<SRL	0.526	<SRL	<SRL	<SRL	<SRL
SRL		0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266
D-1 W8 DNPH	131067-65433	0.323	0.799	<SRL	3.13	<SRL	<SRL	<SRL	0.524	<SRL	<SRL	<SRL	<SRL
SRL		0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262
D-2 W6 DNPH	131067-65434	1.03	0.930	<SRL	1.02	0.301	1.71	<SRL	0.526	<SRL	<SRL	<SRL	<SRL
SRL		0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.266

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

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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. : 131067
Analyst : EG/HP
Units : ug/sample

Sampling Date (s) : 08/10/2013
Receiving Date : 08/13/2013
Analysis Date : 08/15/2013
Reporting Date : 08/16/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W2 DNPH	131067-65431	<SRL	0.134	<SRL	0.673	<SRL	<SRL	<SRL	0.130	<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
U-2 Virbac DNPH	131067-65432	0.087	0.136	<SRL	0.769	<SRL	0.147	<SRL	0.148	<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	131067-65433	0.092	0.229	<SRL	0.896	<SRL	<SRL	<SRL	0.150	<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-2 W6 DNPH	131067-65434	0.290	0.262	<SRL	0.286	0.085	0.481	<SRL	0.148	<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)

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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 : 08/15/2013
Analyst : EG/HP

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	2.32	2.34	2.32	2.32	2.36	2.31	2.32	4.68	2.35	2.31	2.31	2.33
Accuracy (%)*	92.8	93.6	92.8	92.8	94.4	92.4	92.8	93.6	94.0	92.4	92.4	93.2

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	2.33	2.34	2.34	2.34	2.37	2.34	2.36	4.70	2.36	2.34	2.33	2.35
Accuracy (%)*	93.2	93.6	93.6	93.6	94.8	93.6	94.4	94.0	94.4	93.6	93.2	94.0

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	2.34	2.36	2.34	2.35	2.37	2.35	2.37	4.70	2.37	2.34	2.35	2.35
Accuracy (%)*	93.6	94.4	93.6	94.0	94.8	94.0	94.8	94.0	94.8	93.6	94.0	94.0

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	2.35	2.35	2.34	2.36	2.37	2.41	2.45	4.76	2.39	2.35	2.34	2.37
Accuracy (%)*	94.0	94.0	93.6	94.4	94.8	96.4	98.0	95.2	95.6	94.0	93.6	94.8

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	2.66	2.70	2.69	2.71	2.73	2.69	2.71	5.43	2.74	2.70	2.70	2.72
Accuracy (%)*	106	108	108	108	109	108	108	109	110	108	108	109

*Must be 100 ± 10%

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Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

Laboratory Control Spike Analysis

Analysis Date : 08/15/2013 Analyst : EG/HP 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)	0.383	0.367	0.376	0.365	0.384	0.361	0.420	0.739	0.374	0.397	0.374	0.378
Spike Recovery (%)*	101	96.9	99.1	96.4	101	95.3	111	97.5	98.7	105	98.8	100

*Must be 100 ± 15%

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Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

Matrix Spike Analysis

Analysis Date : 08/15/2013 Analyst : EG/HP 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	131074-65482											
Sample Concentration (ug/mL)	1.30	0.533	0.025	0.412	0.116	0.050	0.066	0.134	0.046	0.101	0.011	0.047
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25
Spiked Sample Concentration (ug/mL)	2.44	1.69	1.19	1.55	1.26	1.22	1.35	2.29	1.20	1.25	1.17	1.22
Duplicate Spiked Sample Concentration (ug/mL)	2.43	1.69	1.19	1.55	1.27	1.21	1.36	2.28	1.20	1.26	1.18	1.22
Spike Recovery (%)*	90.9	92.6	93.2	91.0	91.5	93.6	103	86.2	92.3	91.9	92.7	93.8
Dulicate Spike Recovery (%)*	90.1	92.6	93.2	91.0	92.3	92.8	104	85.8	92.3	92.7	93.5	93.8
RPD**	0.4	0.0	0.0	0.0	0.8	0.8	0.7	0.4	0.0	0.8	0.9	0.0

*Must be 100± 25%

** Must be ≤ 25%

Marcus Hueppe
Laboratory Director

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

Analysis Date : 08/15/2013
Analyst : EG/HP

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	131074-65482											
Sample Concentration (ug/mL)	2.61	1.07	0.050	0.825	0.232	0.100	0.131	0.268	0.092	0.202	<RL	0.095
Duplicate Sample Concentration (ug/mL)	2.58	1.06	0.049	0.823	0.229	0.098	0.132	0.274	0.091	0.199	<RL	0.094
RPD**	1.2	0.6	2.6	0.2	1.2	2.0	1.0	2.1	0.8	1.9	NA	0.5
Sample ID	131073-65481											
Sample Concentration (ug/mL)	ND	<RL	ND	0.149	<RL	<RL	ND	<RL	<RL	<RL	0.033	<RL
Duplicate Sample Concentration (ug/mL)	ND	<RL	ND	0.150	<RL	<RL	ND	<RL	<RL	<RL	0.031	<RL
RPD**	NA	NA	NA	0.7	NA	NA	NA	NA	NA	NA	7.8	NA
Sample ID	131073-65480											
Sample Concentration (ug/mL)	0.106	0.044	<RL	0.226	<RL	<RL	<RL	0.025	<RL	<RL	0.037	<RL
Duplicate Sample Concentration (ug/mL)	0.106	0.044	<RL	0.227	<RL	<RL	<RL	0.026	<RL	<RL	0.035	<RL
RPD**	0.1	0.5	NA	0.3	NA	NA	NA	3.1	NA	NA	6.4	NA

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

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

System and Method Blank Analysis

Analysis Date : 08/15/2013
Analyst : EG/HP

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
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

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Amount														
File Name	Formaldeh	Acetaldehy	Acrolein	Acetone	Propionaldel	Crotonaldehyd	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde	Sample name
081513.0002.BND	2.317	2.3436	2.3236	2.3238	2.3611	2.307	2.3204	4.6758	2.3459	2.3083	2.3122	2.33	CCV 2.5 ug/mL (PS061113-01)
081513.0013.BND	2.3254	2.3379	2.3381	2.3361	2.3666	2.3438	2.3611	4.7049	2.3577	2.3354	2.3329	2.347	CCV 2.5 ug/mL (PS011613-01)
081513.0024.BND	2.3448	2.3562	2.3433	2.3509	2.374	2.3485	2.368	4.702	2.3739	2.344	2.3455	2.3518	CCV 2.5 ug/mL (PS011613-01)
081513.0032.BND	2.3534	2.352	2.3374	2.3603	2.3712	2.405	2.4546	4.7616	2.3882	2.3477	2.3443	2.3737	CCV 2.5 ug/mL (PS011613-01)
081513.0003.BND	2.6642	2.6995	2.6943	2.7129	2.7335	2.6851	2.712	5.4334	2.7354	2.7001	2.6958	2.7176	SS 2.50 ppm (PS011613-01)
081513.0005.BND	0.0073	0.0092	0.0098	0.0712	0.0143	0.0235	NP	0.0098	0.0138	0.0064	NP	0.0075	LCS Blank
081513.0006.BND	0.3902	0.3764	0.3853	0.4364	0.3986	0.3846	0.4204	0.7487	0.3875	0.4038	0.3742	0.3854	LCS .379ug/mL (PS011013-01)
081513.0007.BND	2.4406	1.6919	1.1931	1.5508	1.2618	1.2163	1.3541	2.2856	1.1955	1.2463	1.1708	1.217	MS 131074-65482 1.25 ppm [(PS061113-01x2]
081513.0008.BND	2.4316	1.6894	1.1898	1.5504	1.266	1.2143	1.3649	2.2805	1.1994	1.261	1.1849	1.2174	MSD 131074-65482 1.25 ppm [(PS061113-01x2]
081513.0009.BND	2.6073	1.0654	0.0502	0.8246	0.2317	0.0997	0.1311	0.2678	0.0921	0.2024	0.0223	0.0948	131074-65482
081513.0010.BND	2.576	1.0594	0.0489	0.8227	0.2289	0.0977	0.1324	0.2736	0.0914	0.1986	0.0185	0.0943	131074-65482 dup
081513.0014.BND	NP	0.0146	NP	0.1491	0.0081	0.0121	NP	0.0147	0.0122	0.018	0.0334	0.0124	131073-65481
081513.0015.BND	NP	0.0139	NP	0.1501	0.0065	0.0111	NP	0.0156	0.0114	0.0165	0.0309	0.0113	131073-65481 Dup
081513.0025.BND	0.1057	0.0440	0.0025	0.2264	0.0190	0.0198	0.0039	0.0251	0.0110	0.0228	0.0369	0.0143	131073-65480
081513.0026.BND	0.1056	0.0438	0.0025	0.2271	0.02	0.0194	0.0037	0.0259	0.0102	0.0221	0.0346	0.0137	131073-65480 Dup
081513.0001.BND	NP	NP	NC	NP	NC	NC	NC	NC	NC	NC	NC	NC	ACN Blank
081513.0004.BND	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	TO-11 Method Blank
081513.0012.BND	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	ACN Blank
081513.0023.BND	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	ACN Blank
081513.0031.BND	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	ACN Blank

Calibration Summary

File Name: C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Version: 6

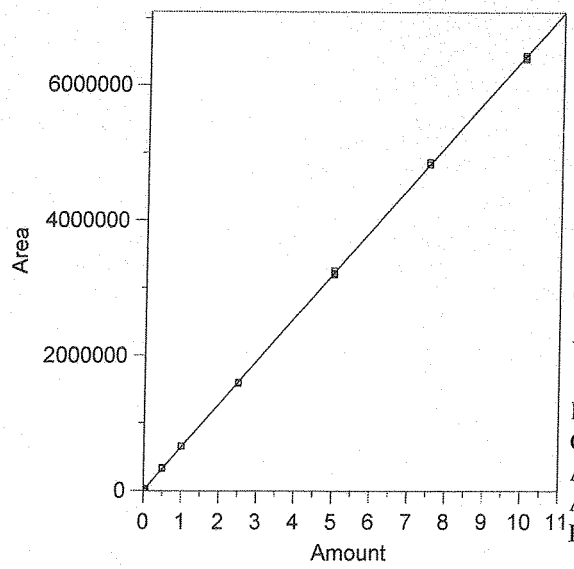
Creator: EG/HP
Description: EPA TO-11

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

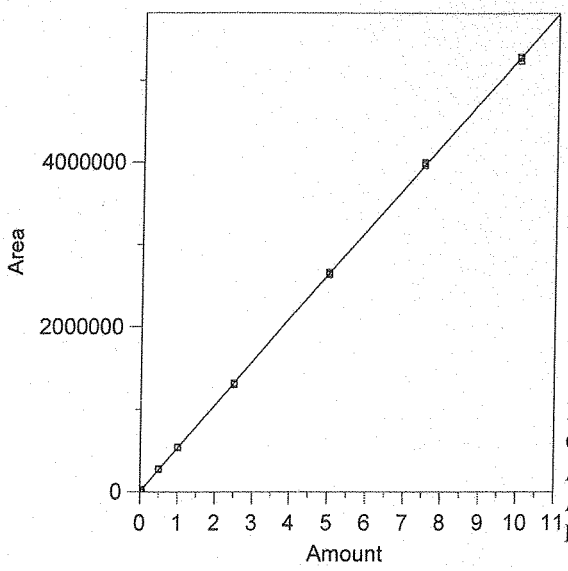
Y = 643471.9 X + 0

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

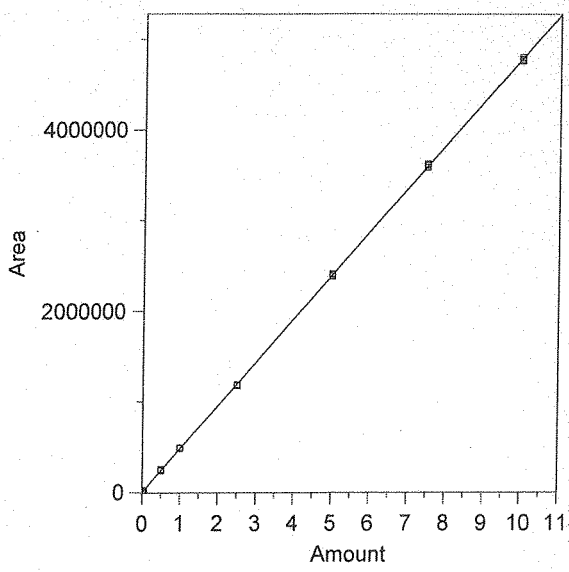
$Y = 528411.2 X + 0$

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

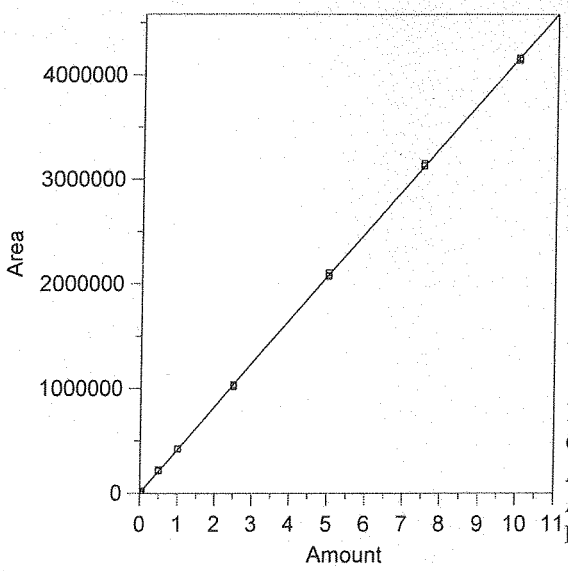
Y = 479129.3 X + 0

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

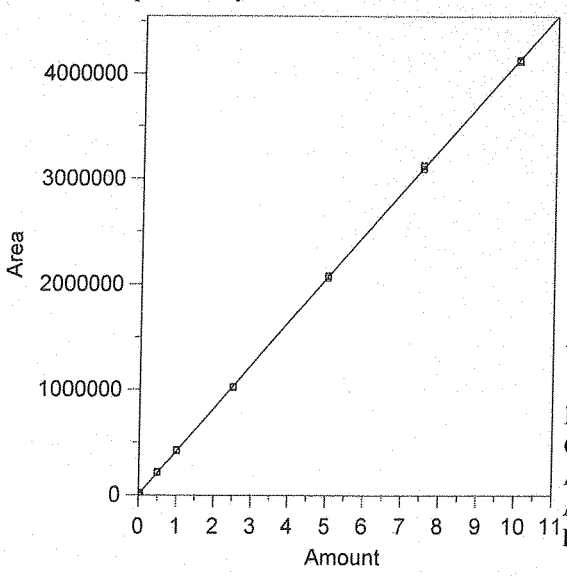
Single peak quantification by area

$Y = 416415.2 X + 0$

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

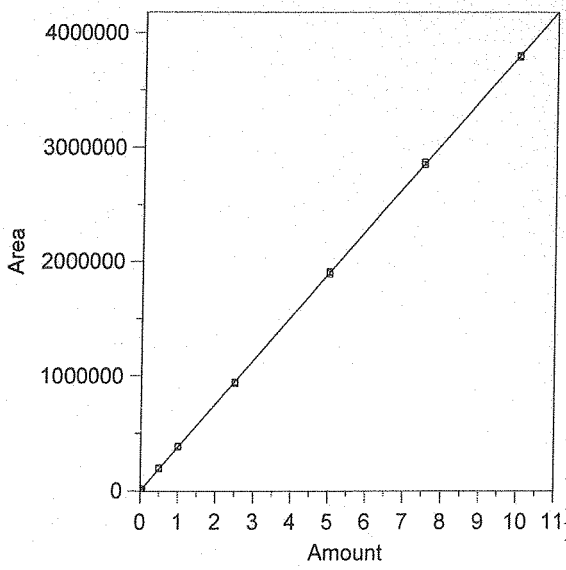
$Y = 413491.1\ X + 0$

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

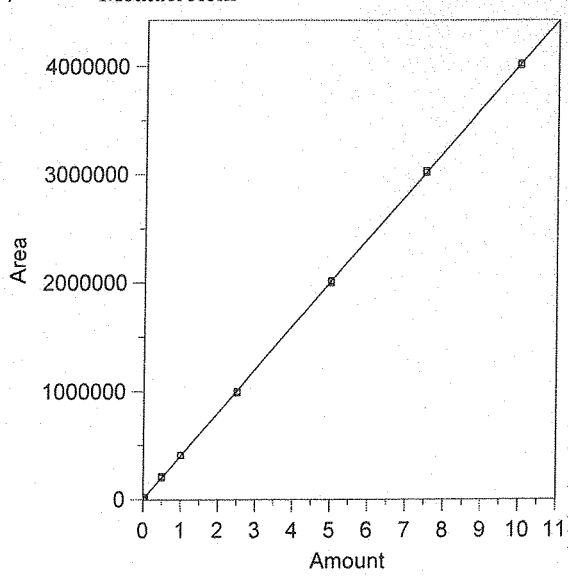
$Y = 380159.3 X + 0$

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

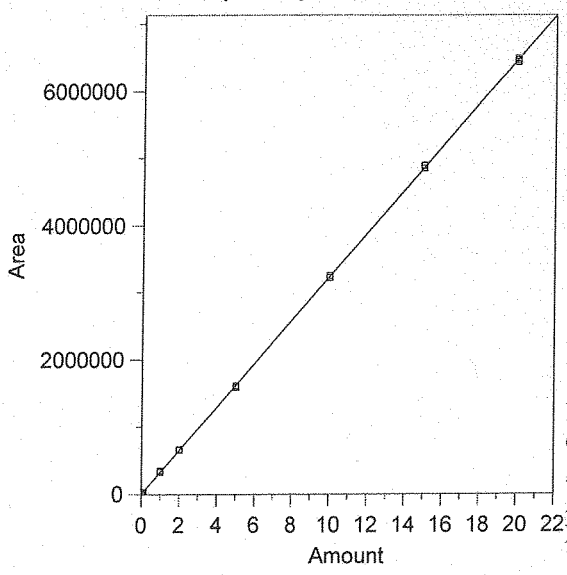
Single peak quantification by area

$Y = 402103.5 X + 0$

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

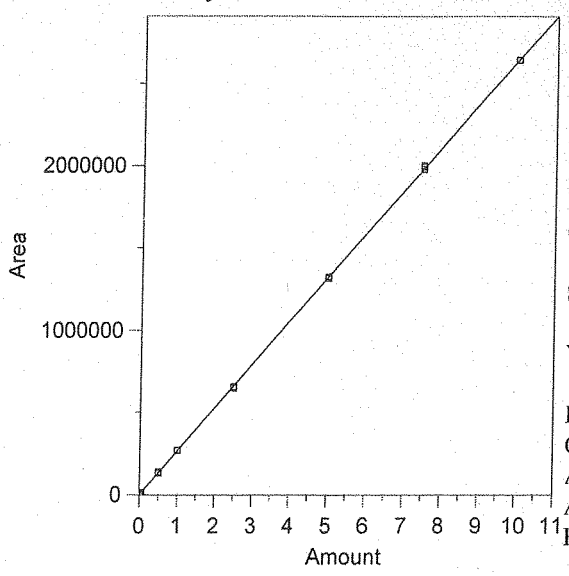
Single peak quantification by area

$Y = 323725.3 X + 0$

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

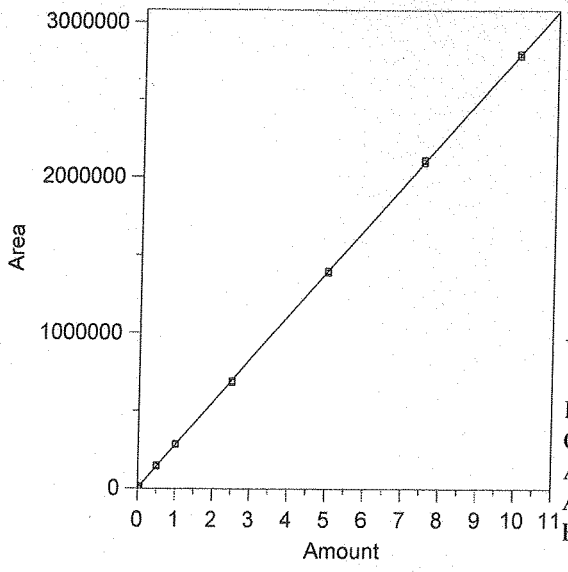
Single peak quantification by area

$Y = 264532.8\ X + 0$

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

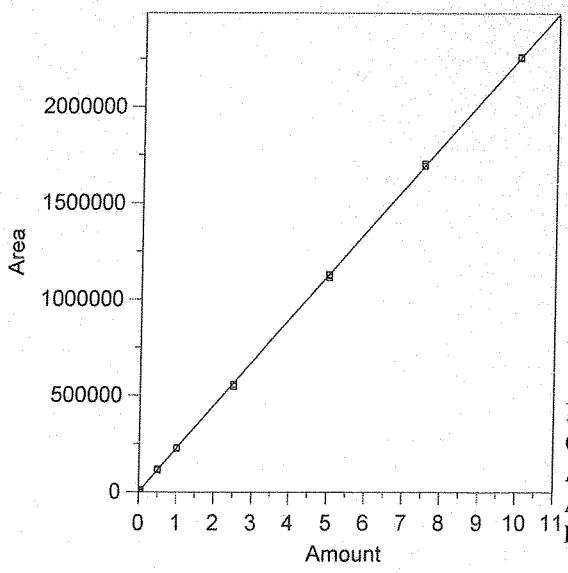
$Y = 279178.6\ X + 0$

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

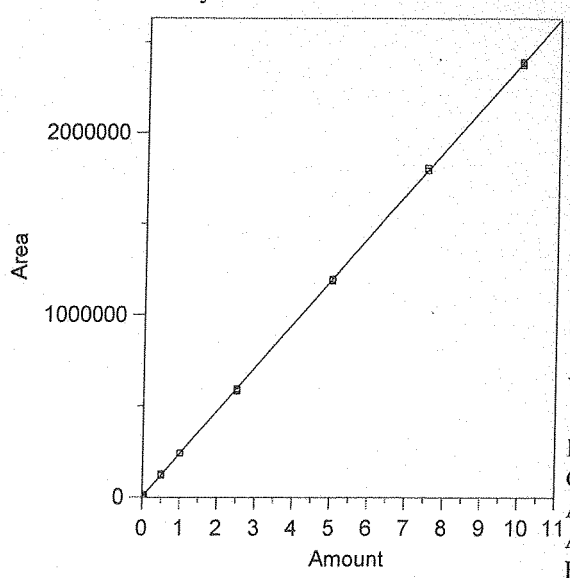
$Y = 225671.2 X + 0$

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

$Y = 238926 X + 0$

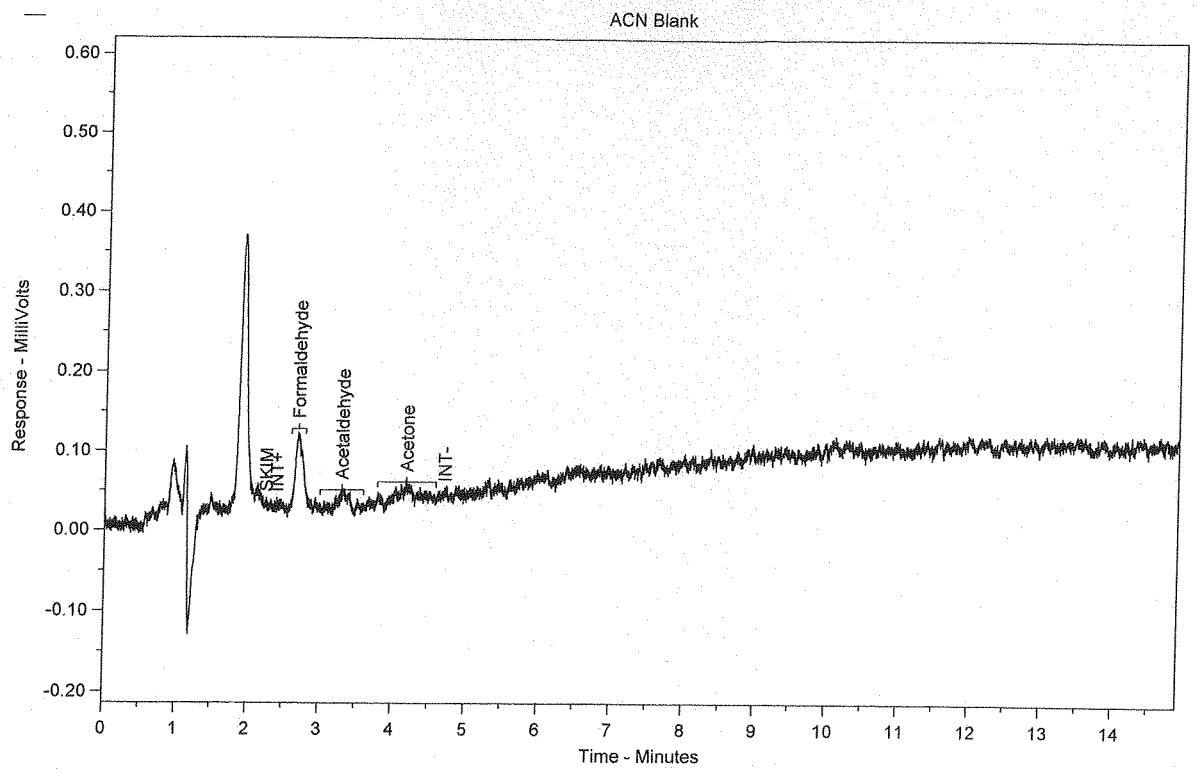
Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.999934
Average error: 1.592%
Average CF: 241305.9
RSD: 2.114%

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\081513TO-11\081513.0001.RAW**
Date Taken (end) = 8/15/2013 6:26:02 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A3COMP.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A3COMP.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 1
Dilution Factor = 1

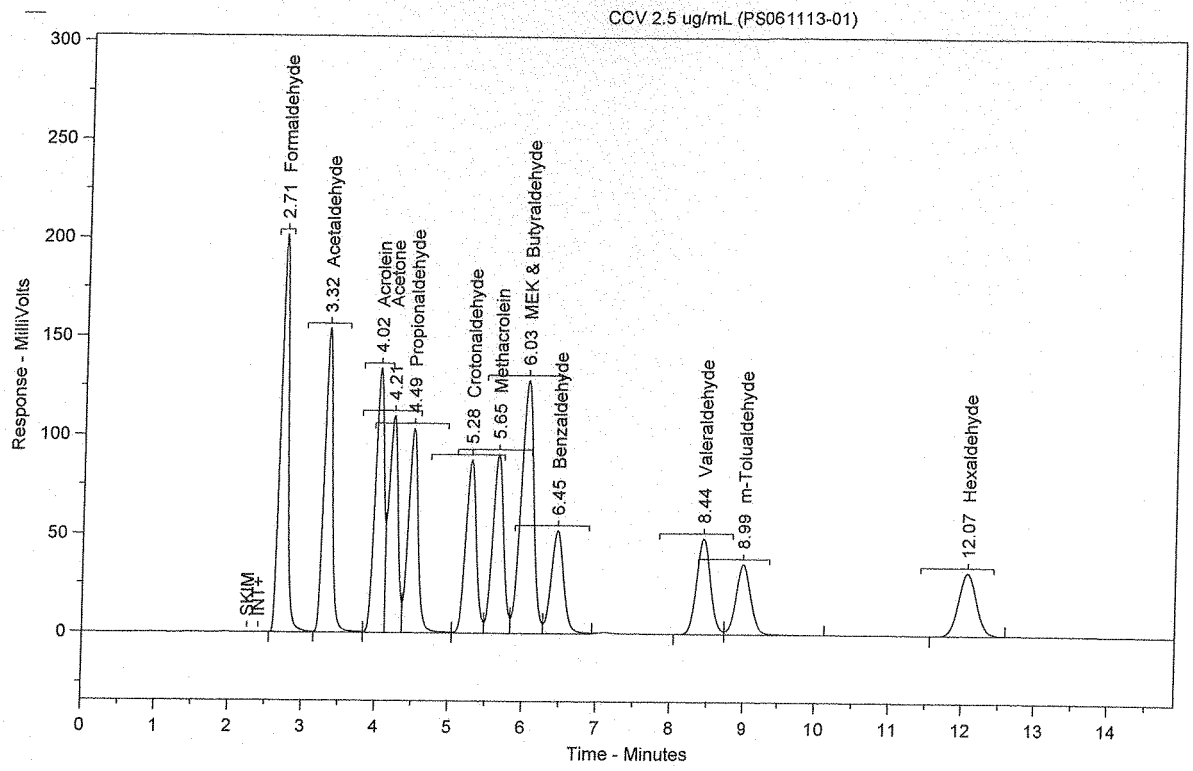
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0

Total Height = 0

Total Amount = 0

EC
08/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0002.RAW**
Date Taken (end) = 8/15/2013 6:42:41 AM

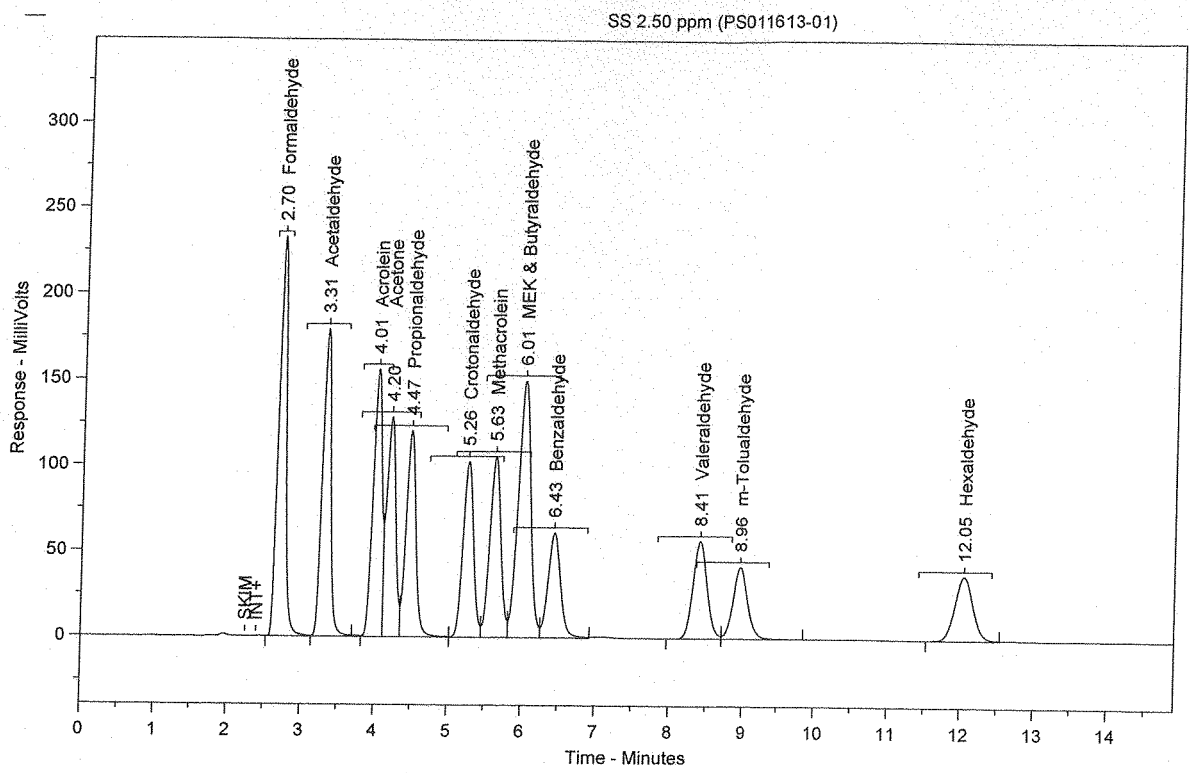
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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	2.71	Formaldehyde	2.3170	7.655	1490910	13.017	SBB	0.11
2	3.32	Acetaldehyde	2.3436	7.743	1238376	10.812	TBV	0.12
3	4.02	Acrolein	2.3236	7.677	1113302	9.720	TVV	0.14
4	4.21	Acetone	2.3238	7.677	967667	8.448	TVV	0.14
5	4.49	Propionaldehyde	2.3611	7.801	976311	8.524	TVV	0.14
6	5.28	Crotonaldehyde	2.3070	7.622	877009	7.657	TVV	0.15
7	5.65	Methacrolein	2.3204	7.666	933027	8.146	TVV	0.15
8	6.03	MEK & Butyraldehyde	4.6758	15.448	1513659	13.215	TVV	0.18
9	6.45	Benzaldehyde	2.3459	7.750	620579	5.418	TVB	0.18
10	8.44	Valeraldehyde	2.3083	7.626	644415	5.626	BV	0.20
11	8.99	m-Tolualdehyde	2.3122	7.639	521802	4.556	VB	0.22
12	12.07	Hexaldehyde	2.3300	7.698	556688	4.860	BB	0.27

Total Area = 1.145375E+07 Total Height = 1179871 Total Amount = 30.26855



Sample Name = **SS 2.50 ppm (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0003.RAW**
Date Taken (end) = 8/15/2013 6:59:20 AM

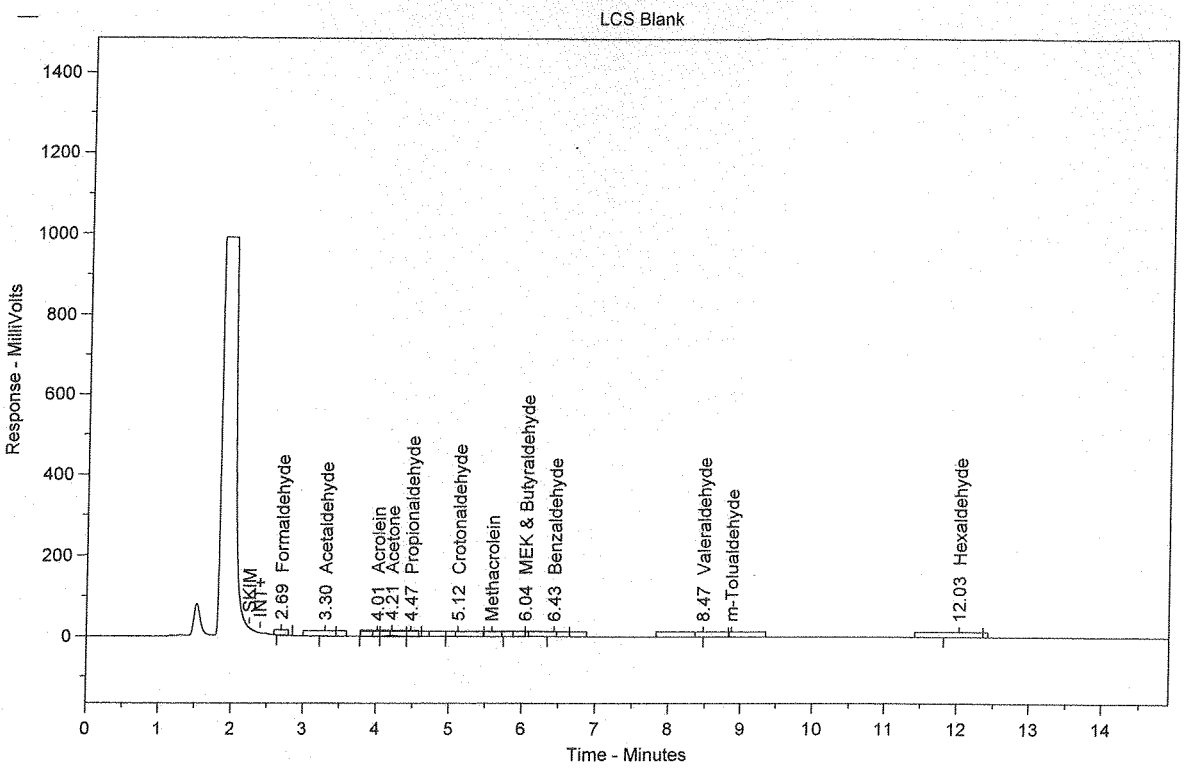
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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	2.70	Formaldehyde	2.6642	7.572	1714333	12.893	SBB	0.11
2	3.31	Acetaldehyde	2.6995	7.672	1426424	10.727	TBV	0.12
3	4.01	Acrolein	2.6943	7.658	1290915	9.708	TVV	0.14
4	4.20	Acetone	2.7129	7.711	1129688	8.496	TVV	0.14
5	4.47	Propionaldehyde	2.7335	7.769	1130290	8.500	TVV	0.14
6	5.26	Crotonaldehyde	2.6851	7.632	1020759	7.677	TVV	0.15
7	5.63	Methacrolein	2.7120	7.708	1090503	8.201	TVV	0.15
8	6.01	MEK & Butyraldehyde	5.4334	15.443	1758923	13.228	TVV	0.18
9	6.43	Benzaldehyde	2.7354	7.775	723595	5.442	TVB	0.18
10	8.41	Valeraldehyde	2.7001	7.674	753807	5.669	BV	0.20
11	8.96	m-Tolualdehyde	2.6958	7.662	608373	4.575	VB	0.22
12	12.05	Hexaldehyde	2.7176	7.724	649309	4.883	BB	0.27

Total Area = 1.329692E+07 Total Height = 1372296 Total Amount = 35.18374



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0005.RAW**
Date Taken (end) = 8/15/2013 7:34:41 AM

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

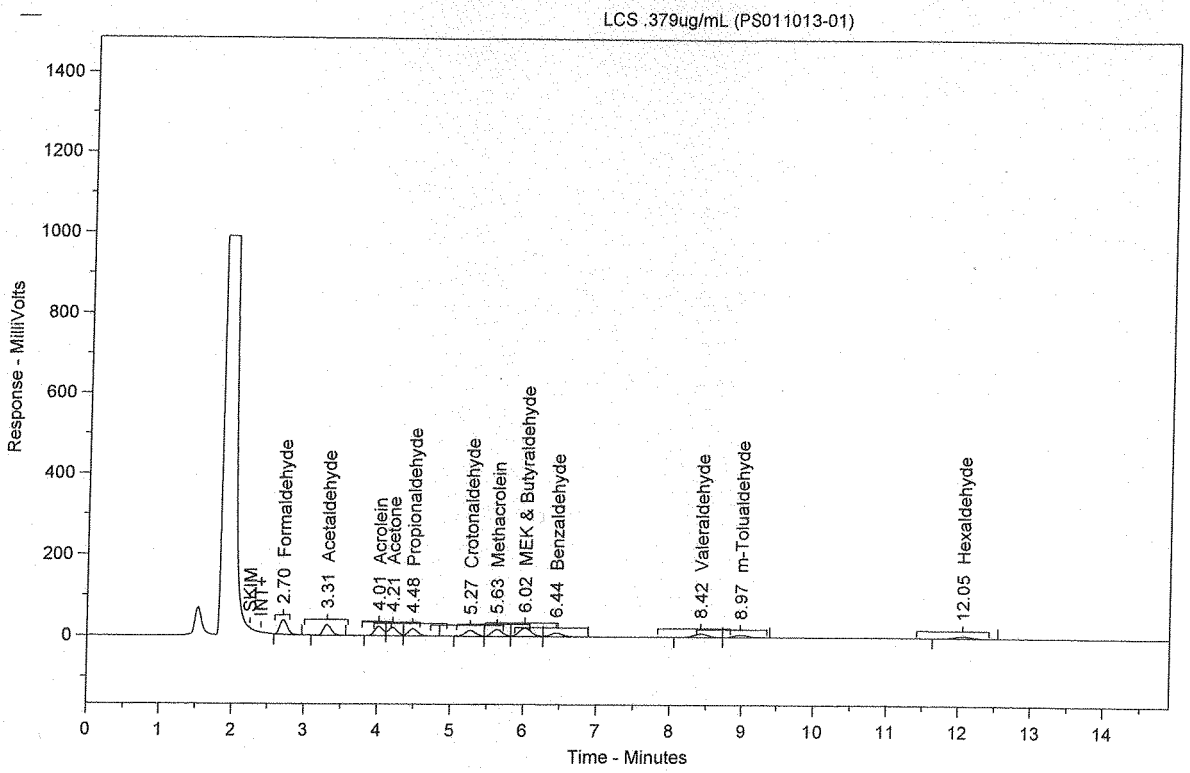
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 5
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0073	4.245	4720	6.825	BB	0.14
2	3.30	Acetaldehyde	0.0092	5.317	4854	7.019	BB	0.15
3	4.01	Acrolein	0.0098	5.688	4709	6.808	BV	0.18
4	4.21	Acetone	0.0712	41.184	29633	42.847	VV	0.13
5	4.47	Propionaldehyde	0.0143	8.264	5904	8.537	VB	0.13
6	5.12	Crotonaldehyde	0.0235	13.628	8952	12.944	BB	0.28
7	6.04	MEK & Butyraldehyde	0.0098	5.652	3162	4.572	BB	0.12
8	6.43	Benzaldehyde	0.0138	7.999	3656	5.286	BB	0.19
9	8.47	Valeraldehyde	0.0064	3.703	1786	2.583	BB	0.14
10	12.03	Hexaldehyde	0.0075	4.321	1784	2.579	BB	0.34

Total Area = 69160.5 Total Height = 6818.212 Total Amount = 0.1727914

HP
8/15/13



Sample Name = **LCS .379ug/mL (PS011013-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0006.RAW**
Date Taken (end) = 8/15/2013 7:51:20 AM

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

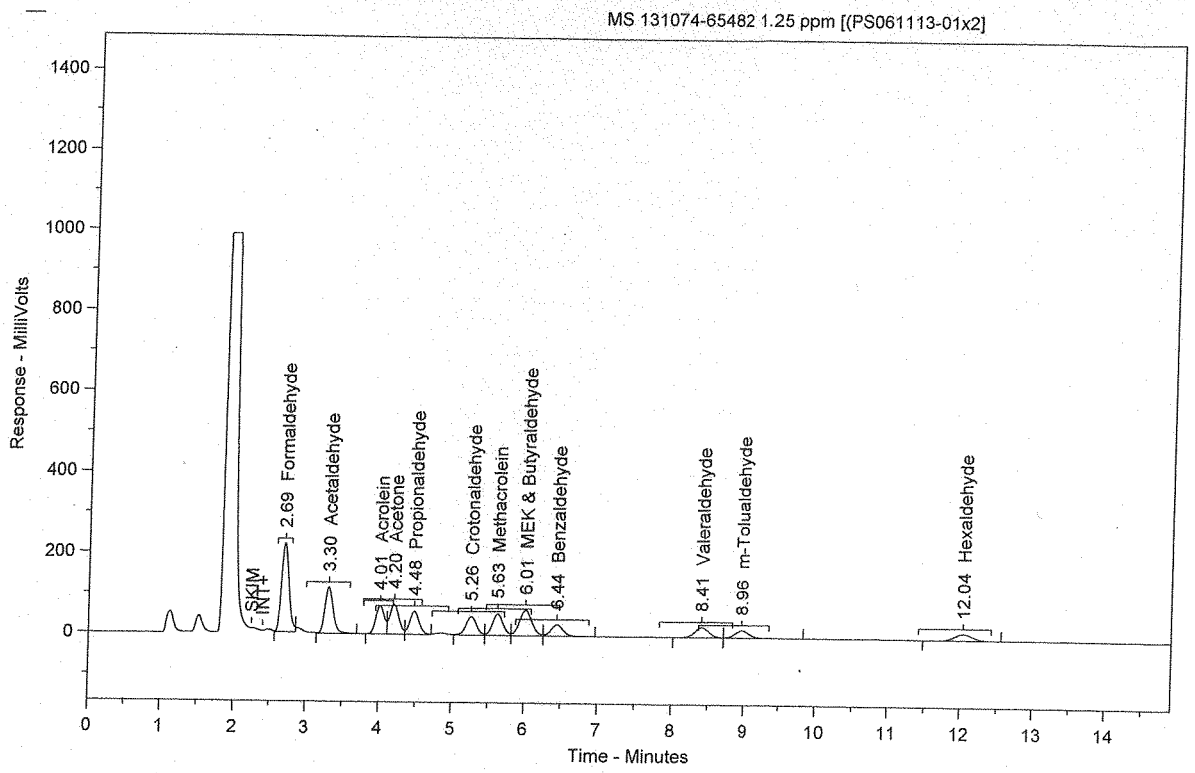
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 6
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	0.3902	7.665	251102	13.007	BB	0.11
2	3.31	Acetaldehyde	0.3764	7.392	198871	10.302	BB	0.12
3	4.01	Acrolein	0.3853	7.568	184612	9.563	BV	0.14
4	4.21	Acetone	0.4364	8.571	181712	9.413	VV	0.13
5	4.48	Propionaldehyde	0.3986	7.828	164804	8.537	VB	0.14
6	5.27	Crotonaldehyde	0.3846	7.553	146196	7.573	BV	0.15
7	5.63	Methacrolein	0.4204	8.258	169057	8.757	VV	0.15
8	6.02	MEK & Butyraldehyde	0.7487	14.705	242366	12.555	VV	0.18
9	6.44	Benzaldehyde	0.3875	7.611	102506	5.310	VB	0.18
10	8.42	Valeraldehyde	0.4038	7.931	112734	5.840	BV	0.21
11	8.97	m-Tolualdehyde	0.3742	7.349	84436	4.374	VB	0.22
12	12.05	Hexaldehyde	0.3854	7.569	92077	4.770	BB	0.27

Total Area = 1930476 Total Height = 201063.9 Total Amount = 5.091353

HP
8/15/13



Sample Name = **MS 131074-65482 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0007.RAW**
Date Taken (end) = 8/15/2013 8:08:00 AM

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

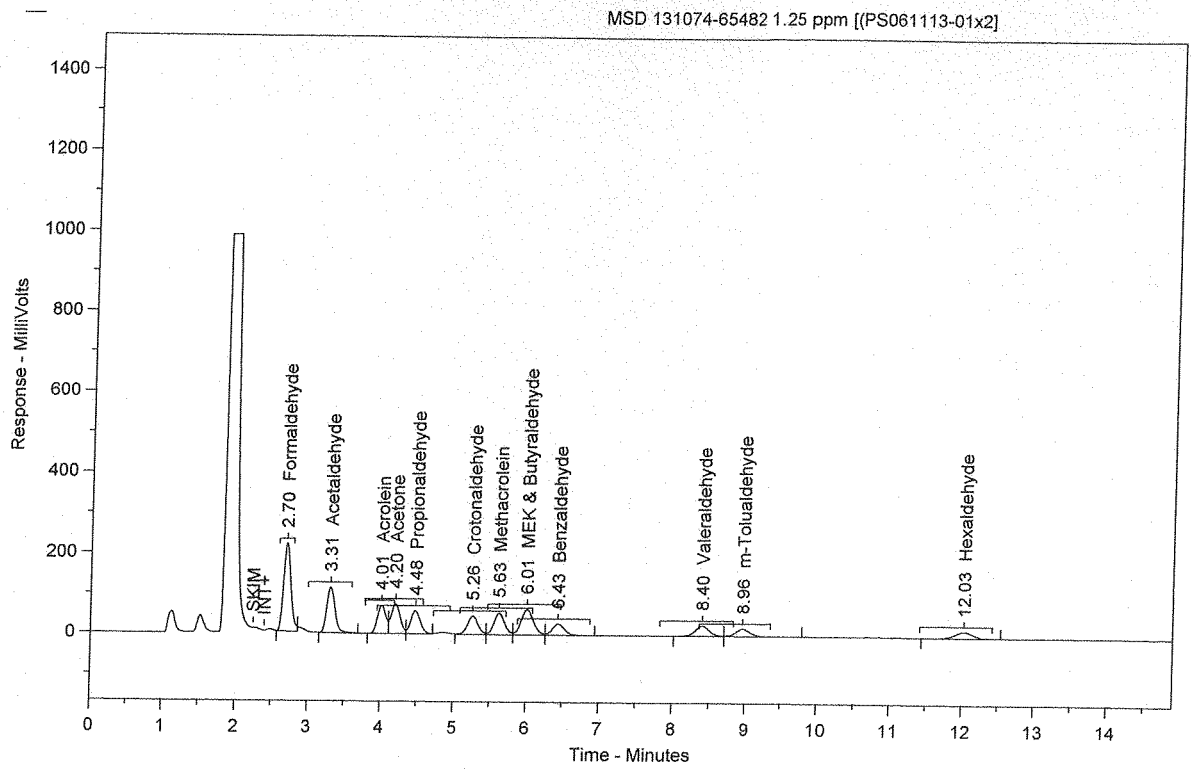
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 7
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.4406	13.693	1570450	21.904	BB	0.11
2	3.30	Acetaldehyde	1.6919	9.492	894008	12.469	BB	0.12
3	4.01	Acrolein	1.1931	6.694	571661	7.973	BV	0.14
4	4.20	Acetone	1.5508	8.701	645785	9.007	VV	0.13
5	4.48	Propionaldehyde	1.2618	7.080	521759	7.277	VB	0.14
6	5.26	Crotonaldehyde	1.2163	6.824	462391	6.449	BV	0.15
7	5.63	Methacrolein	1.3541	7.597	544468	7.594	VV	0.15
8	6.01	MEK & Butyraldehyde	2.2856	12.823	739907	10.320	VV	0.18
9	6.44	Benzaldehyde	1.1955	6.707	316242	4.411	VB	0.18
10	8.41	Valeraldehyde	1.2463	6.992	347935	4.853	BV	0.21
11	8.96	m-Tolualdehyde	1.1708	6.569	264206	3.685	VB	0.22
12	12.04	Hexaldehyde	1.2170	6.828	290769	4.056	BB	0.28

Total Area = 7169582 Total Height = 782820.9 Total Amount = 17.82371

HP
08/15/13



Sample Name = **MSD 131074-65482 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0008.RAW**
Date Taken (end) = 8/15/2013 8:24:38 AM

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

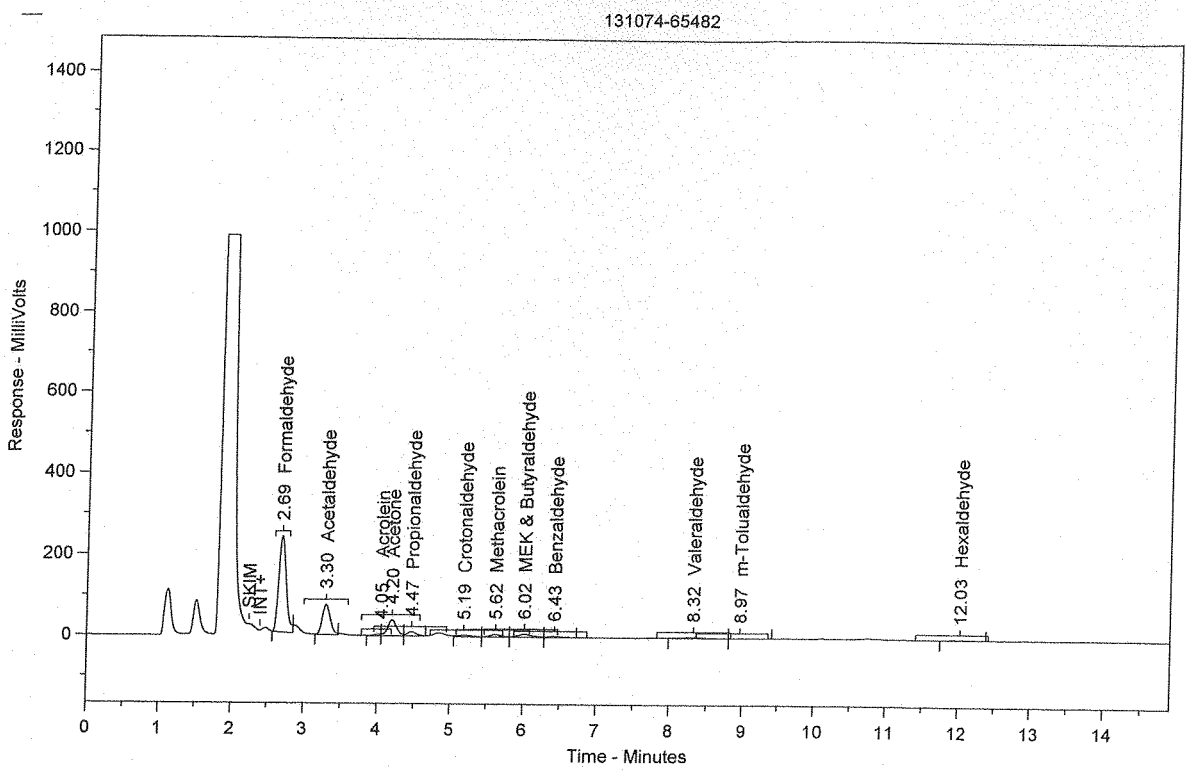
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 8
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	2.4316	13.623	1564686	21.814	BB	0.11
2	3.31	Acetaldehyde	1.6894	9.465	892708	12.446	BB	0.12
3	4.01	Acrolein	1.1898	6.666	570063	7.948	BV	0.14
4	4.20	Acetone	1.5504	8.686	645621	9.001	VV	0.13
5	4.48	Propionaldehyde	1.2660	7.093	523475	7.298	VB	0.14
6	5.26	Crotonaldehyde	1.2143	6.803	461614	6.436	BV	0.15
7	5.63	Methacrolein	1.3649	7.646	548814	7.651	VV	0.15
8	6.01	MEK & Butyraldehyde	2.2805	12.776	738252	10.292	VV	0.18
9	6.43	Benzaldehyde	1.1994	6.719	317275	4.423	VB	0.18
10	8.40	Valeraldehyde	1.2610	7.065	352045	4.908	BV	0.21
11	8.96	m-Tolualdehyde	1.1849	6.638	267395	3.728	VB	0.22
12	12.03	Hexaldehyde	1.2174	6.820	290872	4.055	BB	0.27

Total Area = 7172821 Total Height = 784768 Total Amount = 17.84955

HP
08/15/13



Sample Name = **131074-65482**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0009.RAW**
Date Taken (end) = 8/15/2013 8:41:21 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 = 9
Dilution Factor = 1

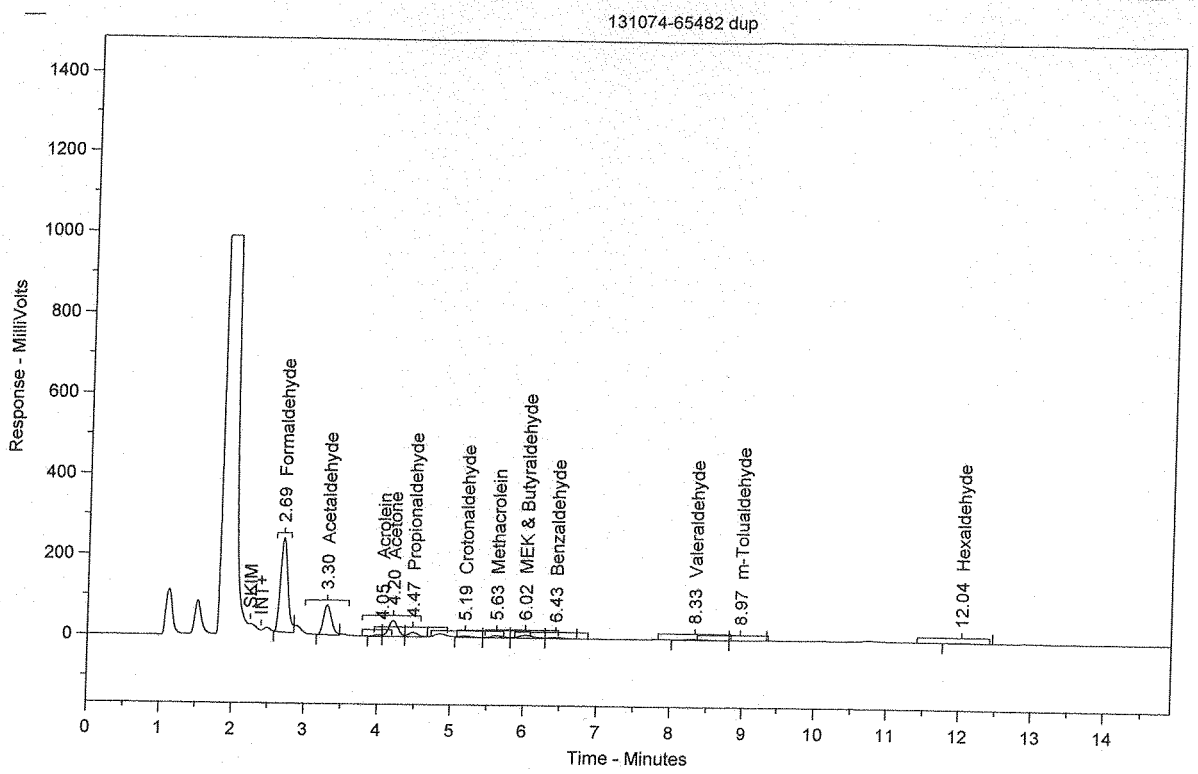
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.6073	45.826	1677721	56.114	BB	0.11
2	3.30	Acetaldehyde	1.0654	18.725	562962	18.829	BB	0.12
3	4.05	Acrolein	0.0502	0.882	24043	0.804	BV	0.11
4	4.20	Acetone	0.8246	14.494	343391	11.485	VV	0.13
5	4.47	Propionaldehyde	0.2317	4.073	95821	3.205	VB	0.14
6	5.19	Crotonaldehyde	0.0997	1.753	37920	1.268	BV	0.19
7	5.62	Methacrolein	0.1311	2.304	52707	1.763	VV	0.16
8	6.02	MEK & Butyraldehyde	0.2678	4.708	86705	2.900	VV	0.19
9	6.43	Benzaldehyde	0.0921	1.619	24374	0.815	VB	0.18
10	8.32	Valeraldehyde	0.2024	3.557	56493	1.890	BV	0.35
11	8.97	m-Tolualdehyde	0.0223	0.391	5026	0.168	VB	0.34
12	12.03	Hexaldehyde	0.0948	1.667	22661	0.758	BB	0.28

Total Area = 2989824

Total Height = 383871.9

Total Amount = 5.689505

HP
08/15/13



Sample Name = **131074-65482 dup**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0010.RAW**
Date Taken (end) = 8/15/2013 8:58:00 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 = 10
Dilution Factor = 1

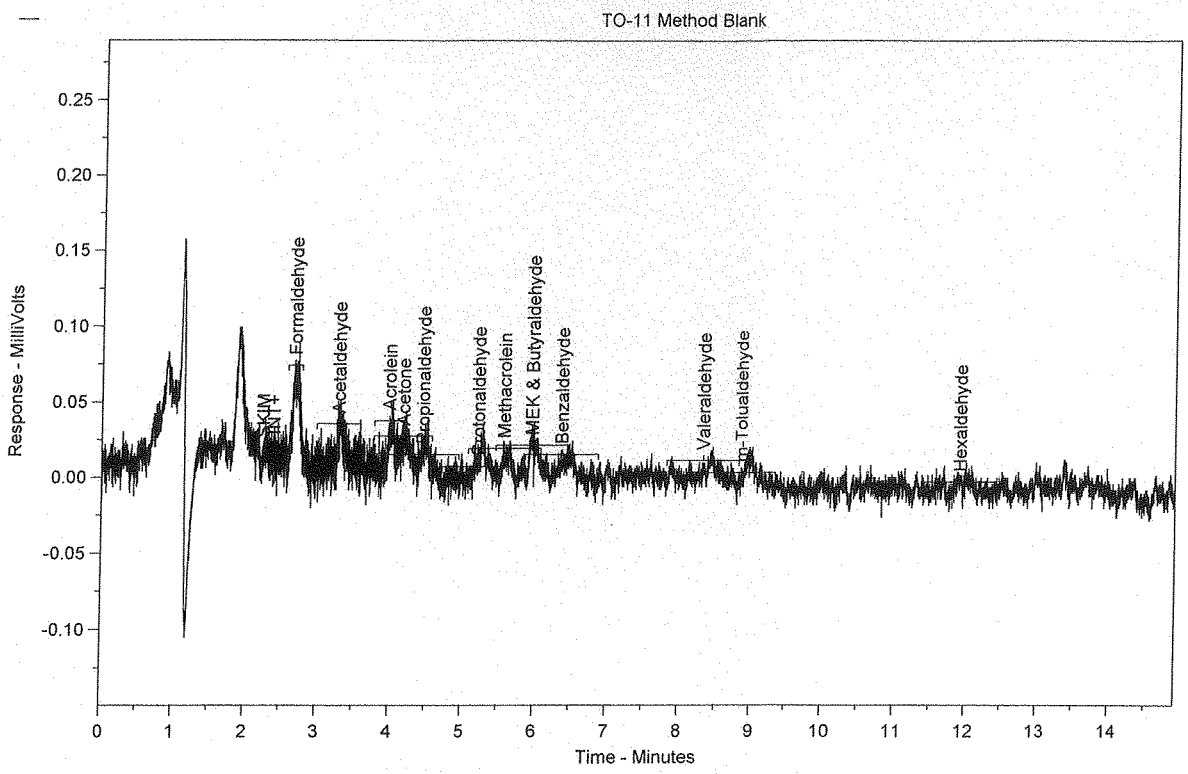
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.5760	45.653	1657554	55.936	BB	0.11
2	3.30	Acetaldehyde	1.0594	18.775	559790	18.891	BB	0.12
3	4.05	Acrolein	0.0489	0.867	23446	0.791	BV	0.10
4	4.20	Acetone	0.8227	14.581	342588	11.561	VV	0.13
5	4.47	Propionaldehyde	0.2289	4.057	94662	3.194	VB	0.14
6	5.19	Crotonaldehyde	0.0977	1.731	37135	1.253	BB	0.18
7	5.63	Methacrolein	0.1324	2.347	53246	1.797	BV	0.16
8	6.02	MEK & Butyraldehyde	0.2736	4.849	88567	2.989	VV	0.20
9	6.43	Benzaldehyde	0.0914	1.621	24189	0.816	VB	0.18
10	8.33	Valeraldehyde	0.1986	3.519	55432	1.871	BV	0.35
11	8.97	m-Tolualdehyde	0.0185	0.328	4183	0.141	VB	0.31
12	12.04	Hexaldehyde	0.0943	1.672	22537	0.761	BB	0.28

Total Area = 2963330

Total Height = 381487.3

Total Amount = 5.642459

HF
08/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0004.RAW**
Date Taken (end) = 8/15/2013 7:18:02 AM

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

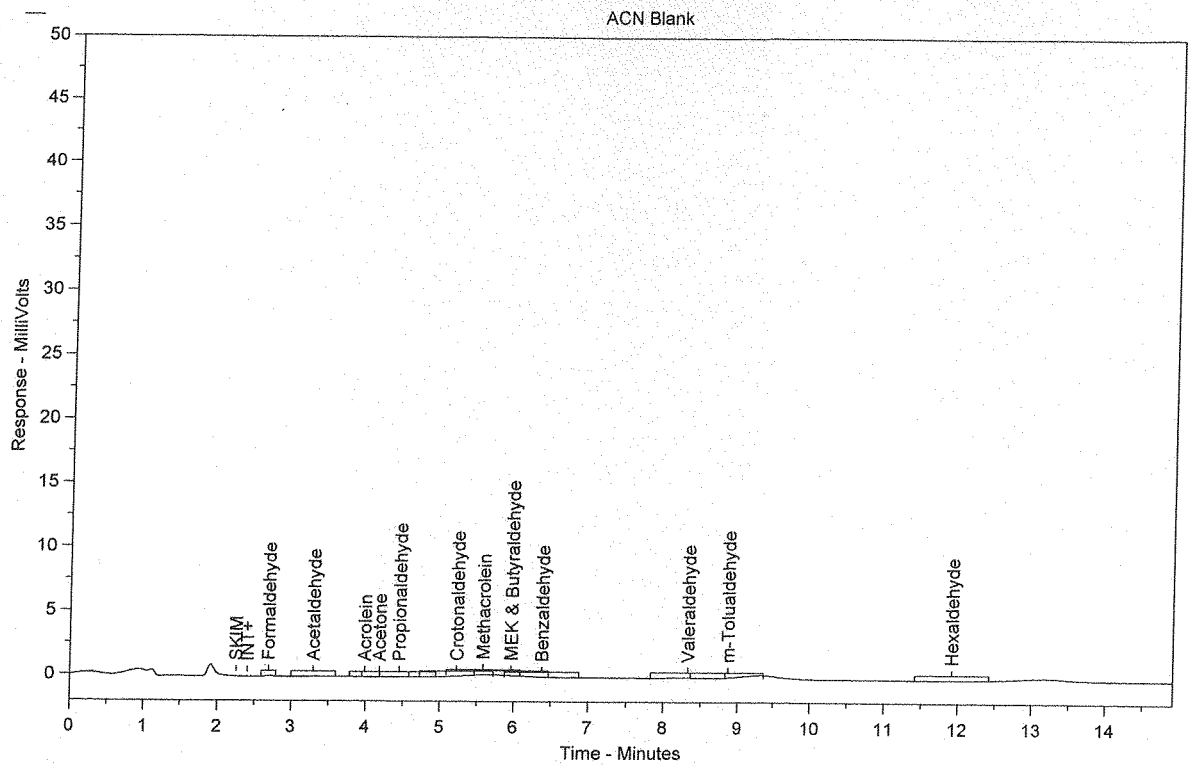
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

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

HP
8/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0012.RAW**
Date Taken (end) = 8/15/2013 9:31:18 AM

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

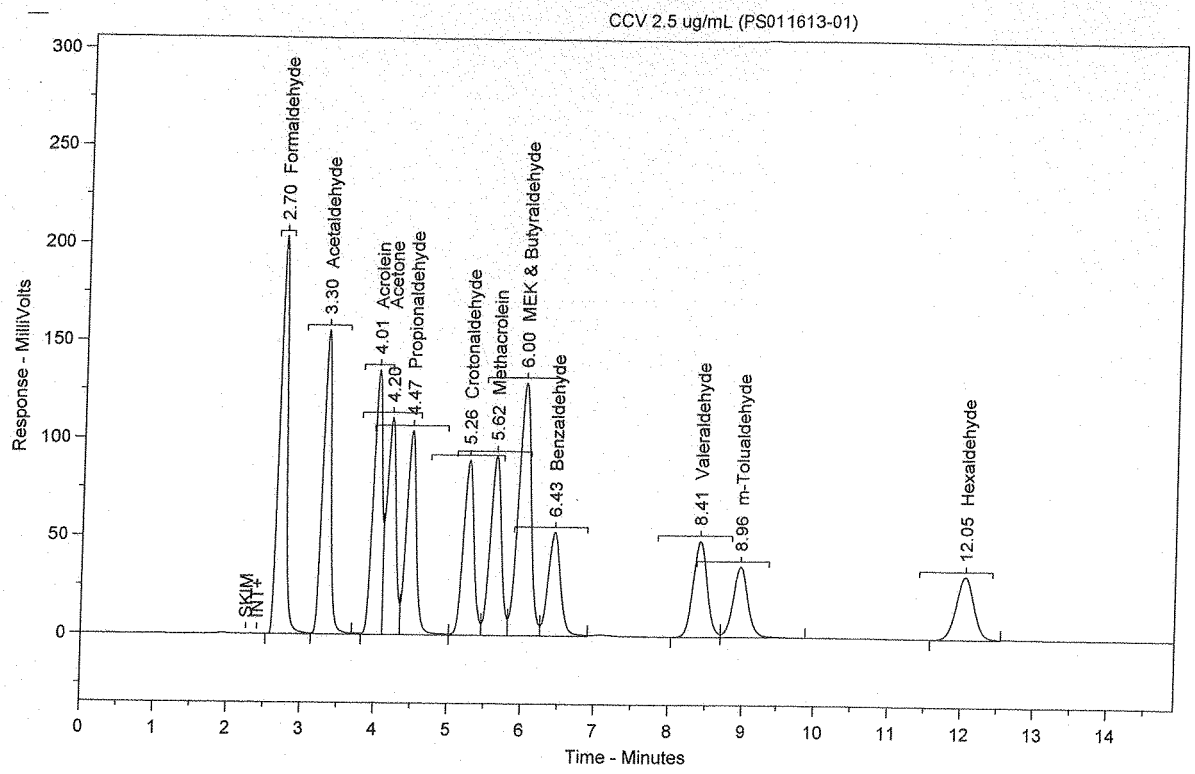
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 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

HP
08/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0013.RAW**
Date Taken (end) = 8/15/2013 9:47:58 AM

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

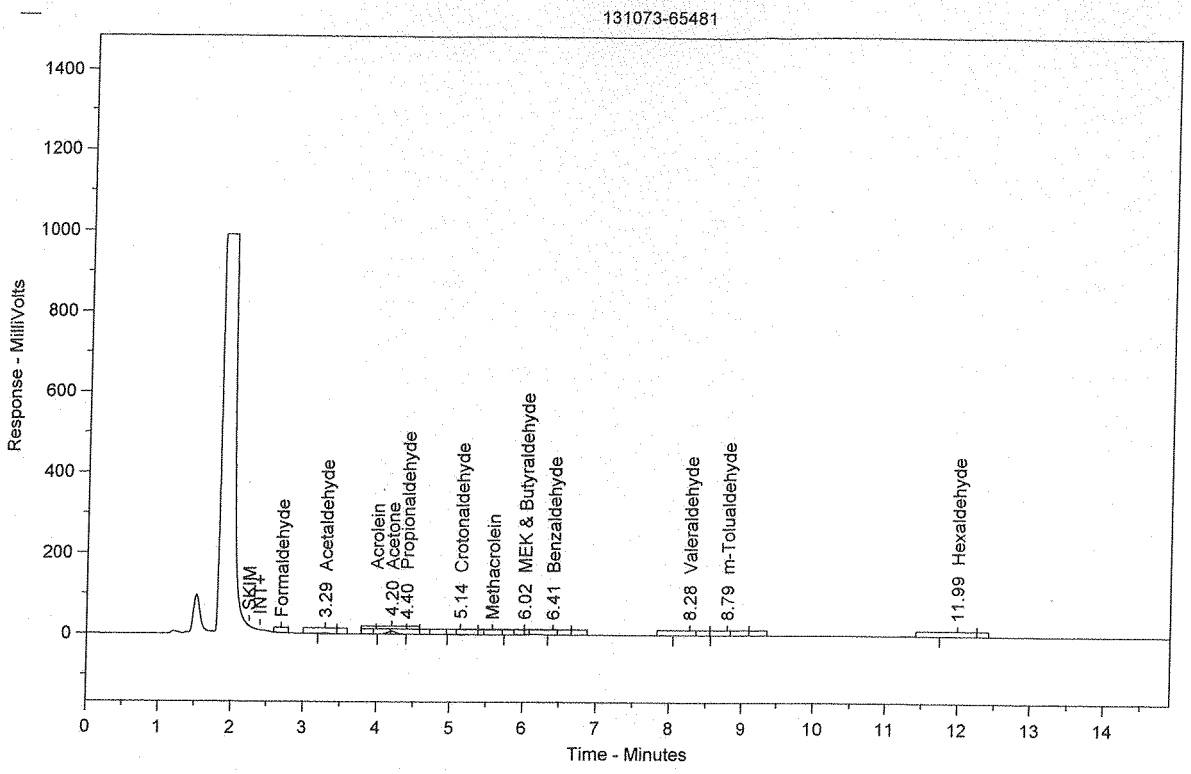
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 13
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	2.3254	7.628	1496352	12.978	SBB	0.11
2	3.30	Acetaldehyde	2.3379	7.668	1235347	10.714	TBV	0.12
3	4.01	Acrolein	2.3381	7.669	1120257	9.716	TVV	0.14
4	4.20	Acetone	2.3361	7.663	972789	8.437	TVV	0.14
5	4.47	Propionaldehyde	2.3666	7.763	978559	8.487	TVV	0.14
6	5.26	Crotonaldehyde	2.3438	7.688	891014	7.728	TVV	0.15
7	5.62	Methacrolein	2.3611	7.745	949417	8.235	TVV	0.15
8	6.00	MEK & Butyraldehyde	4.7049	15.432	1523083	13.210	TVV	0.18
9	6.43	Benzaldehyde	2.3577	7.734	623702	5.410	TVB	0.18
10	8.41	Valeraldehyde	2.3354	7.660	652003	5.655	BV	0.20
11	8.96	m-Tolualdehyde	2.3329	7.652	526468	4.566	VB	0.22
12	12.05	Hexaldehyde	2.3470	7.698	560751	4.864	BB	0.27

Total Area = 1.152974E+07 Total Height = 1192703 Total Amount = 30.48691

HP
08/15/13



Sample Name = **131073-65481**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0014.RAW**
Date Taken (end) = 8/15/2013 10:04:36 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 = 14
Dilution Factor = 1

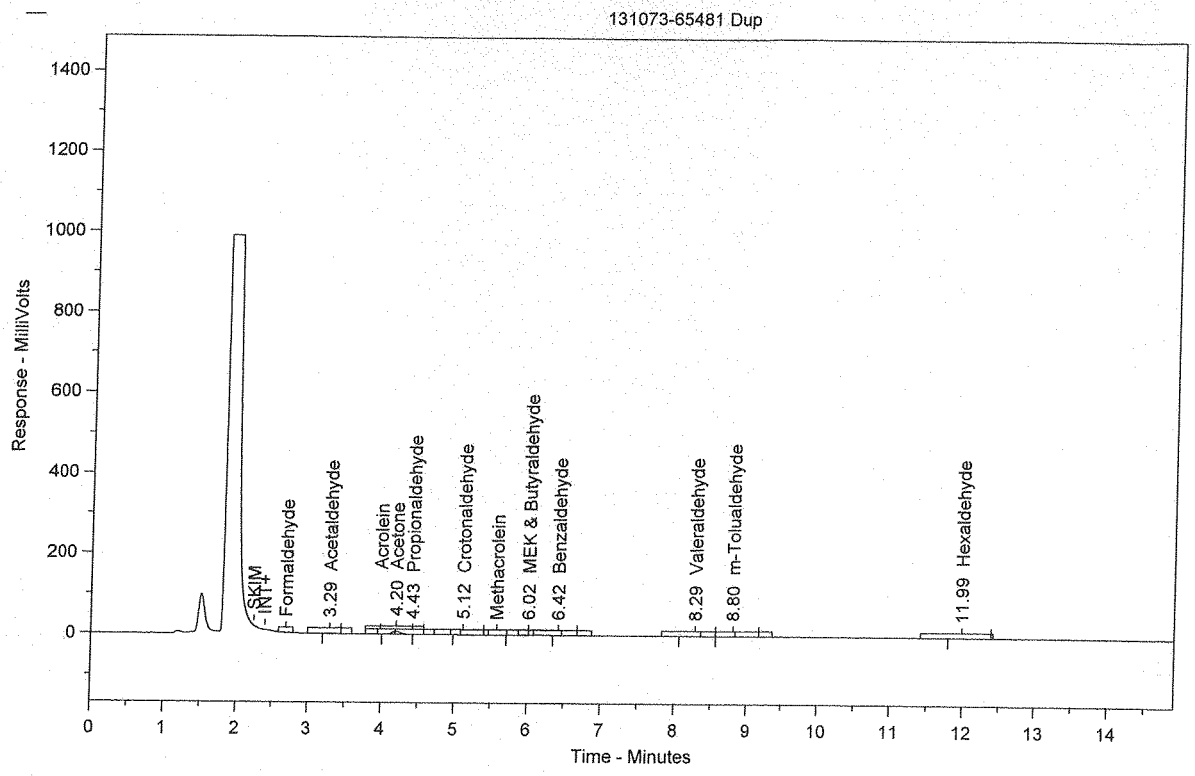
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	3.29	Acetaldehyde	0.0146	5.308	7702	7.606	BB	0.15
2	4.20	Acetone	0.1491	54.314	62104	61.330	SBB	0.13
3	4.40	Propionaldehyde	0.0081	2.965	3367	3.325	TBB	0.11
4	5.14	Crotonaldehyde	0.0121	4.398	4591	4.534	BB	0.27
5	6.02	MEK & Butyraldehyde	0.0147	5.339	4746	4.687	BB	0.11
6	6.41	Benzaldehyde	0.0122	4.440	3225	3.185	BB	0.18
7	8.28	Valeraldehyde	0.0180	6.557	5027	4.964	BV	0.24
8	8.79	m-Tolualdehyde	0.0334	12.171	7542	7.448	VB	0.25
9	11.99	Hexaldehyde	0.0124	4.508	2957	2.921	BB	0.32

Total Area = 101261

Total Height = 10898.83

Total Amount = 0.2745897

HR
08/15/13



Sample Name = **131073-65481 Dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0015.RAW**
Date Taken (end) = 8/15/2013 10:21:15 AM

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

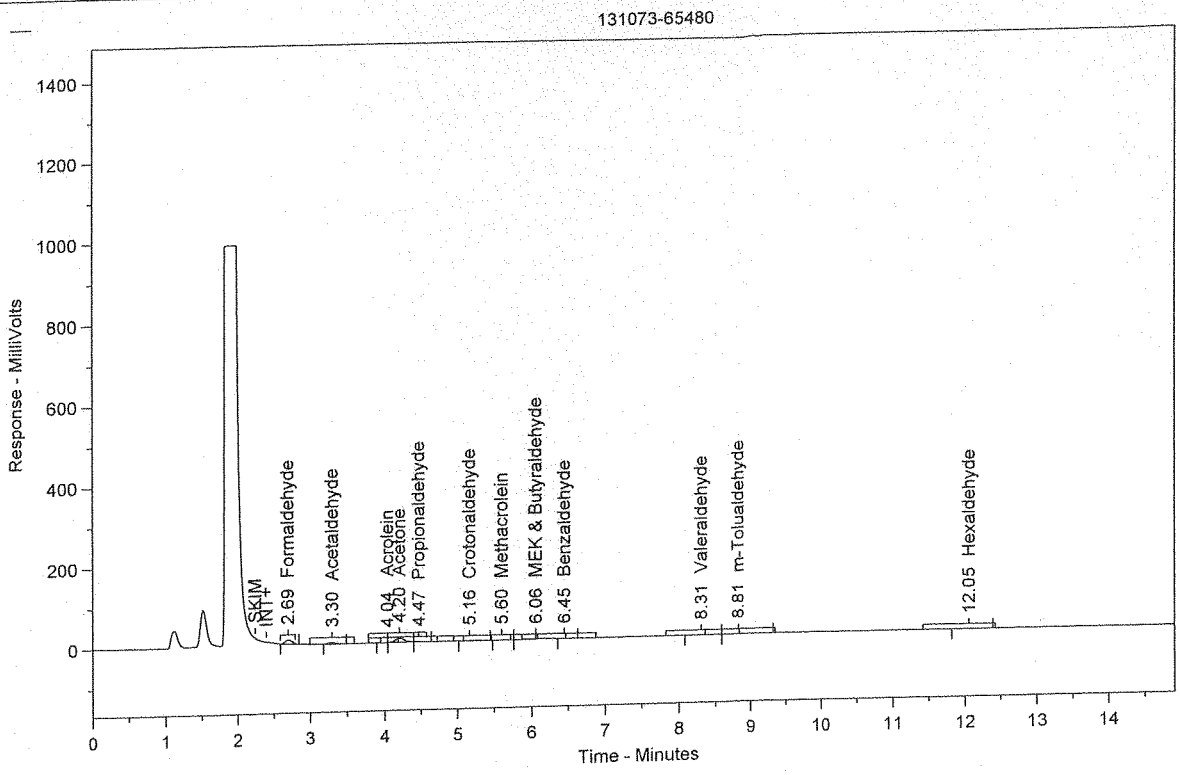
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 15
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	3.29	Acetaldehyde	0.0139	5.184	7321	7.389	BB	0.15
2	4.20	Acetone	0.1501	56.181	62524	63.103	SBB	0.13
3	4.43	Propionaldehyde	0.0065	2.442	2699	2.724	TBB	0.09
4	5.12	Crotonaldehyde	0.0111	4.141	4207	4.246	BB	0.24
5	6.02	MEK & Butyraldehyde	0.0156	5.821	5036	5.083	BB	0.12
6	6.42	Benzaldehyde	0.0114	4.247	3003	3.031	BB	0.18
7	8.29	Valeraldehyde	0.0165	6.175	4607	4.650	BV	0.23
8	8.80	m-Tolualdehyde	0.0309	11.567	6976	7.041	VB	0.25
9	11.99	Hexaldehyde	0.0113	4.242	2709	2.734	BB	0.31

Total Area = 99081.27 Total Height = 10724.95 Total Amount = 0.2672558

MP
08/15/13



Sample Name = **131073-65480**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0025.RAW**
Date Taken (end) = 8/15/2013 1:07:46 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 = 25
Dilution Factor = 1

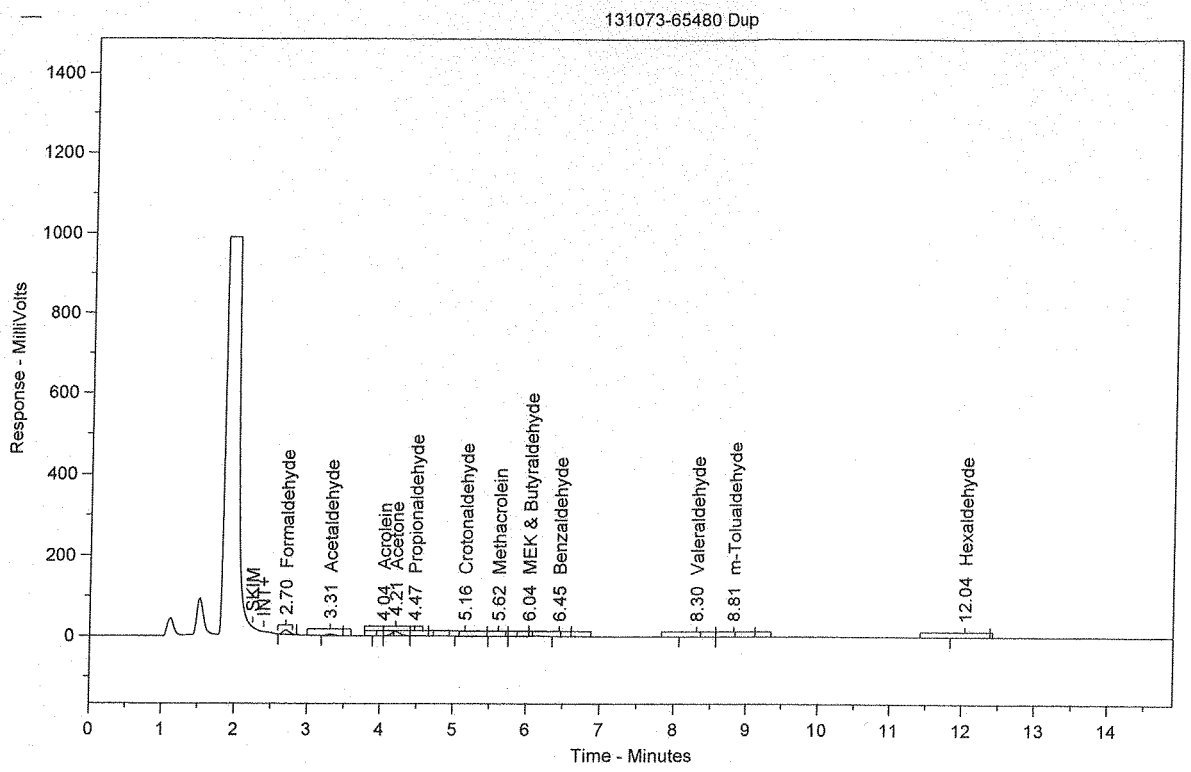
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.1057	19.883	68001	29.203	BB	0.11
2	3.30	Acetaldehyde	0.0440	8.272	23231	9.977	BB	0.13
3	4.04	Acrolein	0.0025	0.475	1211	0.520	BV	0.09
4	4.20	Acetone	0.2264	42.590	94263	40.482	VV	0.13
5	4.47	Propionaldehyde	0.0190	3.584	7877	3.383	VB	0.15
6	5.16	Crotonaldehyde	0.0198	3.728	7532	3.235	BB	0.26
7	5.60	Methacrolein	0.0039	0.732	1564	0.672	BV	0.13
8	6.06	MEK & Butyraldehyde	0.0251	4.724	8129	3.491	VB	0.13
9	6.45	Benzaldehyde	0.0110	2.070	2911	1.250	BB	0.17
10	8.31	Valeraldehyde	0.0228	4.298	6378	2.739	BV	0.28
11	8.81	m-Tolualdehyde	0.0369	6.946	8332	3.578	VB	0.28
12	12.05	Hexaldehyde	0.0143	2.697	3426	1.471	BB	0.31

Total Area = 232852.8

Total Height = 28223.39

Total Amount = 0.531504

HP
08/15/13



Sample Name = **131073-65480 Dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0026.RAW**
Date Taken (end) = 8/15/2013 1:24:25 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0026.BND
Method Description=TO-11A Carbonyls

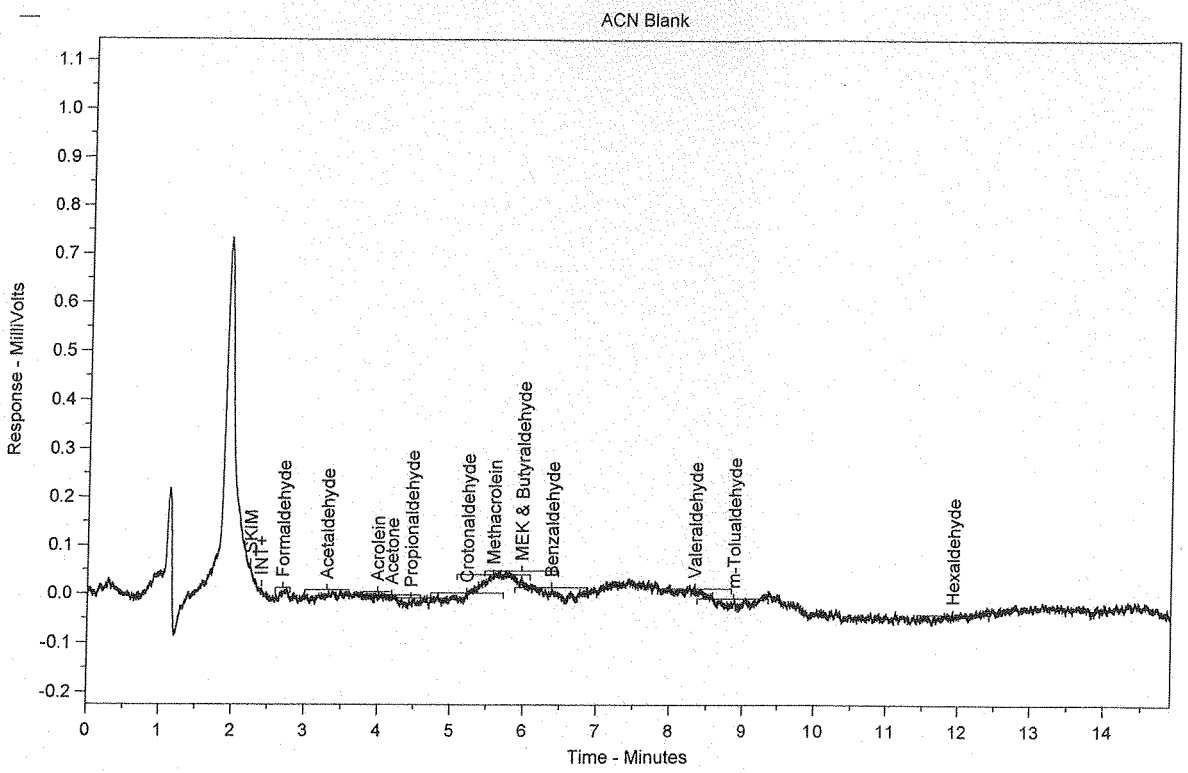
Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0026.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 26
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	0.1056	19.984	67960	29.257	BB	0.11
2	3.31	Acetaldehyde	0.0438	8.287	23142	9.963	BB	0.12
3	4.04	Acrolein	0.0025	0.467	1182	0.509	BV	0.09
4	4.21	Acetone	0.2271	42.963	94552	40.705	VV	0.13
5	4.47	Propionaldehyde	0.0200	3.794	8290	3.569	VB	0.14
6	5.16	Crotonaldehyde	0.0194	3.662	7358	3.167	BB	0.26
7	5.62	Methacrolein	0.0037	0.693	1472	0.634	BV	0.13
8	6.04	MEK & Butyraldehyde	0.0259	4.896	8377	3.606	VB	0.13
9	6.45	Benzaldehyde	0.0102	1.939	2711	1.167	BB	0.18
10	8.30	Valeraldehyde	0.0221	4.183	6172	2.657	BV	0.34
11	8.81	m-Tolualdehyde	0.0346	6.550	7812	3.363	VB	0.28
12	12.04	Hexaldehyde	0.0137	2.583	3262	1.404	BB	0.30

Total Area = 232287.6 Total Height = 28122.3 Total Amount = 0.5284981

HP
08/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0023.RAW**
Date Taken (end) = 8/15/2013 12:34:29 PM

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

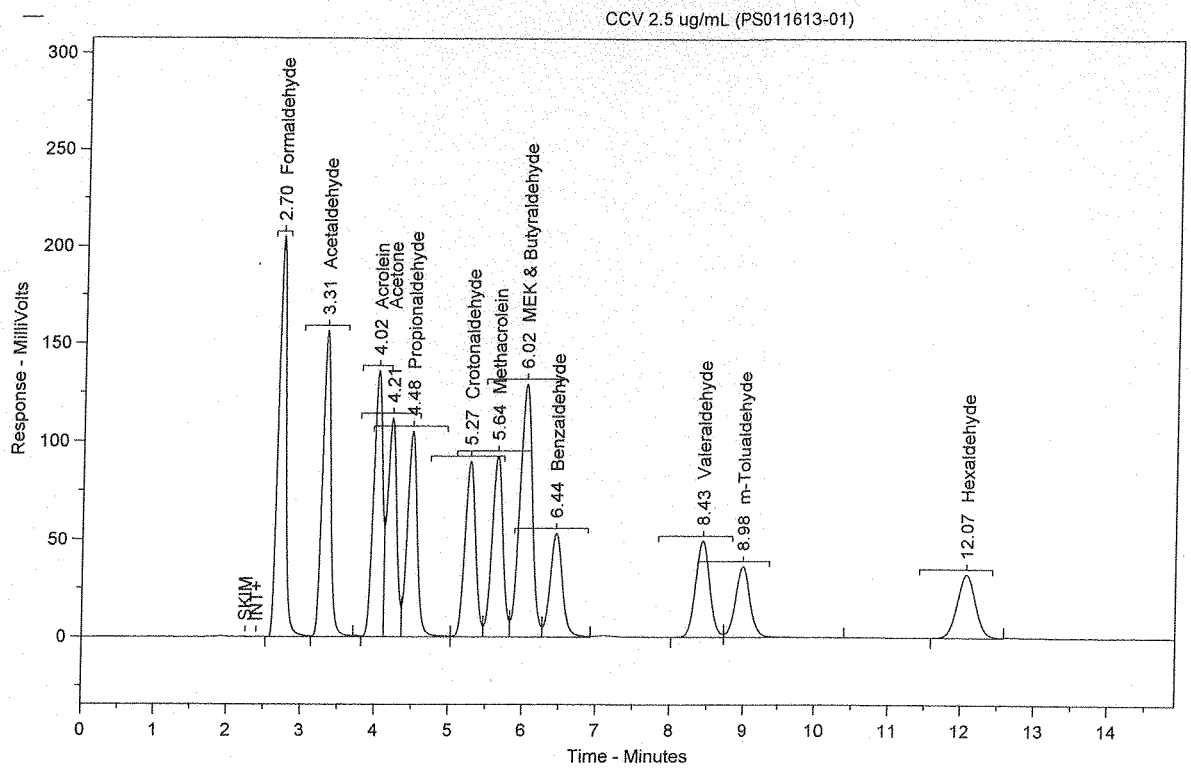
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

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

HP
08/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0024.RAW**
Date Taken (end) = 8/15/2013 12:51:08 PM

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

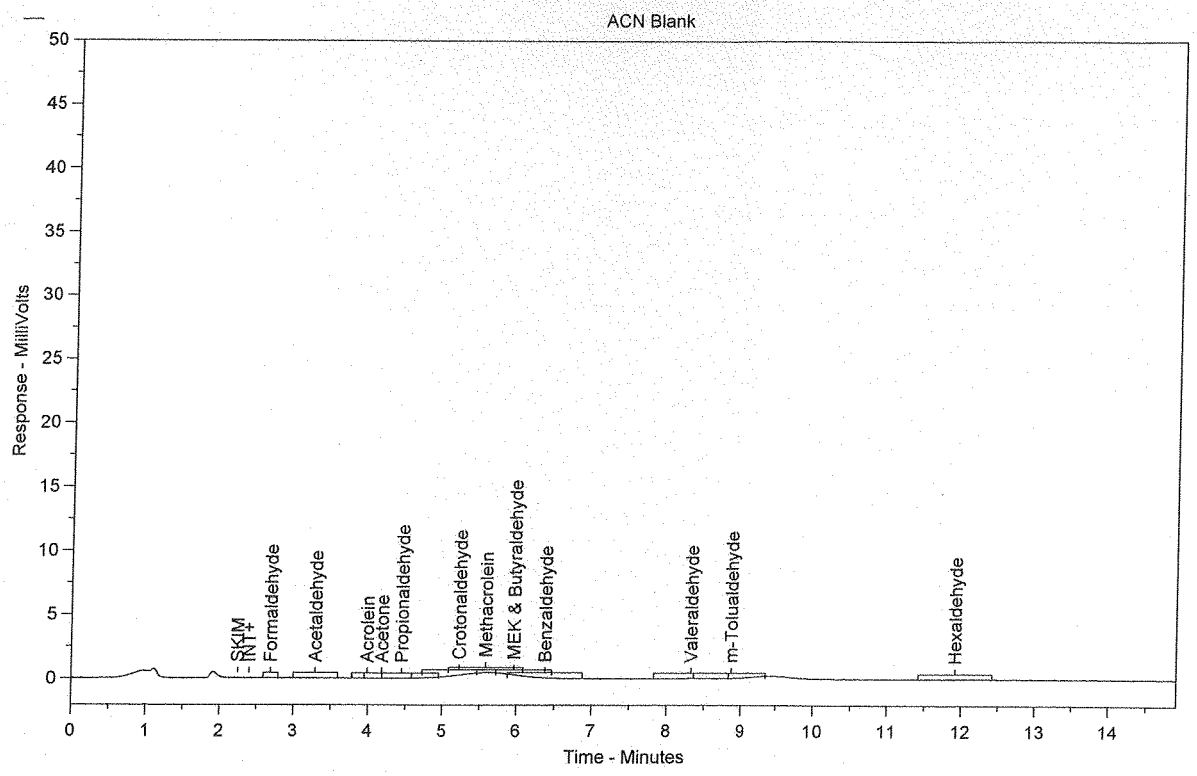
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	2.3448	7.662	1508799	13.032	SBB	0.11
2	3.31	Acetaldehyde	2.3562	7.699	1245058	10.754	TBV	0.12
3	4.02	Acrolein	2.3433	7.657	1122748	9.697	TVV	0.14
4	4.21	Acetone	2.3509	7.682	978946	8.455	TVV	0.13
5	4.48	Propionaldehyde	2.3740	7.758	981648	8.479	TVV	0.14
6	5.27	Crotonaldehyde	2.3485	7.674	892793	7.711	TVV	0.15
7	5.64	Methacrolein	2.3680	7.738	952163	8.224	TVV	0.15
8	6.02	MEK & Butyraldehyde	4.7020	15.365	1522163	13.147	TVV	0.18
9	6.44	Benzaldehyde	2.3739	7.757	627983	5.424	TVB	0.18
10	8.43	Valeraldehyde	2.3440	7.659	654395	5.652	BV	0.20
11	8.98	m-Tolualdehyde	2.3455	7.664	529319	4.572	VB	0.22
12	12.07	Hexaldehyde	2.3518	7.685	561914	4.853	BB	0.27

Total Area = 1.157793E+07 Total Height = 1196466 Total Amount = 30.603

HP
08/15/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0031.RAW**
Date Taken (end) = 8/15/2013 2:47:42 PM

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

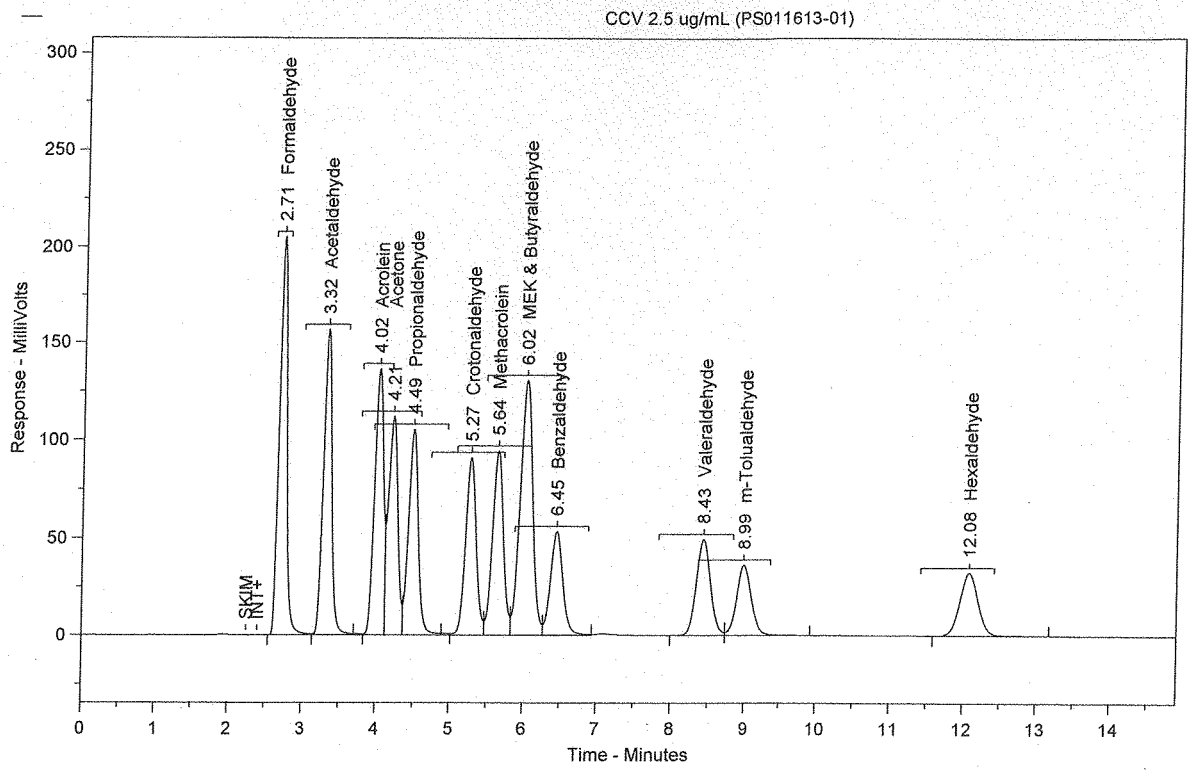
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 31
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
08/16/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0032.RAW**
Date Taken (end) = 8/15/2013 3:04:21 PM

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

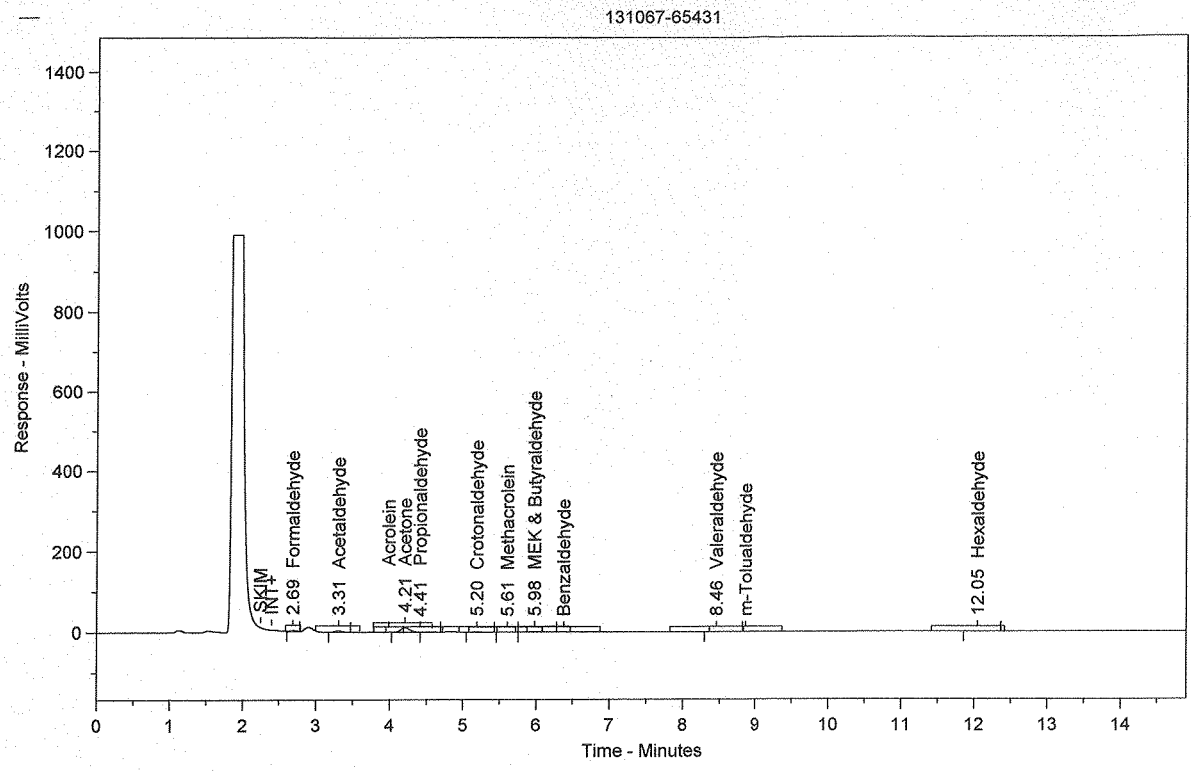
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 32
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.71	Formaldehyde	2.3534	7.629	1514356	12.980	SBB	0.11
2	3.32	Acetaldehyde	2.3520	7.624	1242822	10.653	TBV	0.12
3	4.02	Acrolein	2.3374	7.577	1119902	9.599	TVV	0.14
4	4.21	Acetone	2.3603	7.651	982861	8.425	TVV	0.14
5	4.49	Propionaldehyde	2.3712	7.687	980487	8.404	TVV	0.14
6	5.27	Crotonaldehyde	2.4050	7.796	914265	7.837	TVV	0.15
7	5.64	Methacrolein	2.4546	7.957	986993	8.460	TVV	0.15
8	6.02	MEK & Butyraldehyde	4.7616	15.435	1541443	13.213	TVV	0.18
9	6.45	Benzaldehyde	2.3882	7.741	631747	5.415	TVB	0.18
10	8.43	Valeraldehyde	2.3477	7.610	655425	5.618	BV	0.20
11	8.99	m-Tolualdehyde	2.3443	7.599	529030	4.535	VB	0.22
12	12.08	Hexaldehyde	2.3737	7.695	567143	4.861	BB	0.27

Total Area = 1.166647E+07 Total Height = 1202962 Total Amount = 30.84924

HP
08/16/13



Sample Name = **131067-65431** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0027.RAW**
Date Taken (end) = 8/15/2013 1:41:03 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0027.BND
Method Description=TO-11A Carbonyls

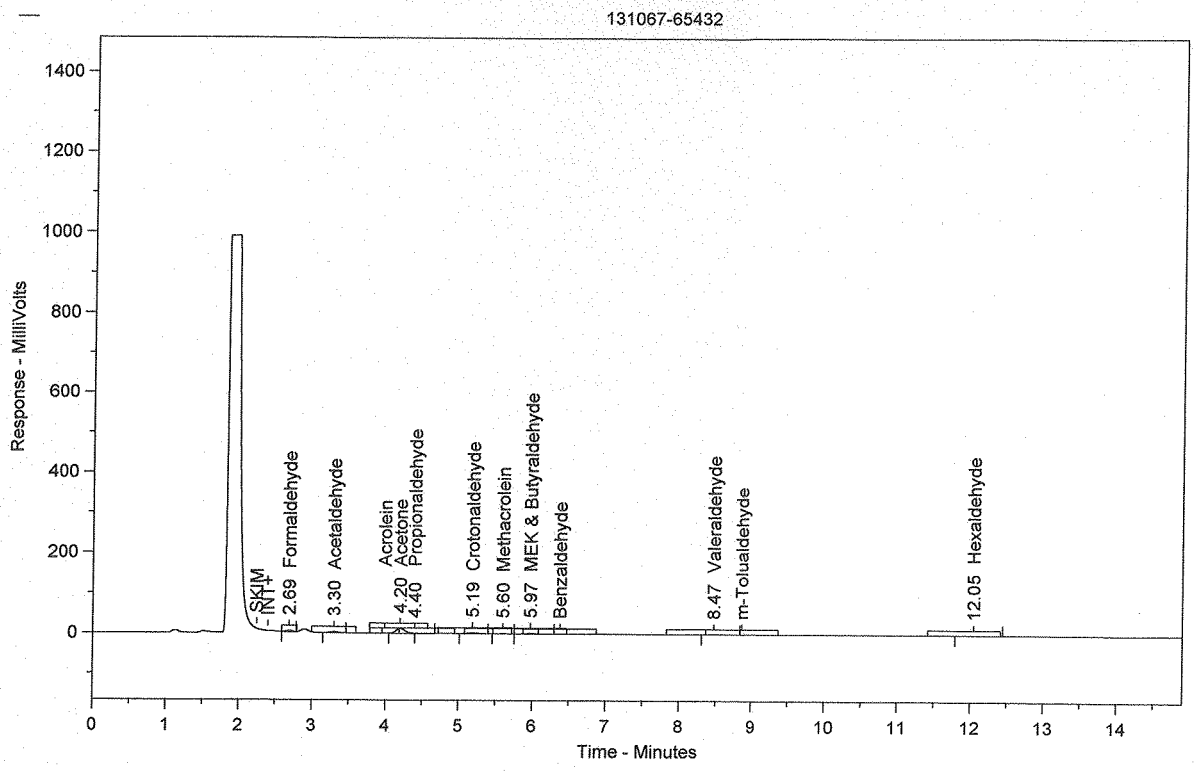
Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0027.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 27
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0158	4.141	10174	6.384	BB	0.11
2	3.31	Acetaldehyde	0.0447	11.700	23605	14.813	BB	0.12
3	4.21	Acetone	0.2244	58.770	93436	58.634	SBB	0.13
4	4.41	Propionaldehyde	0.0113	2.950	4658	2.923	TBB	0.12
5	5.20	Crotonaldehyde	0.0106	2.784	4041	2.536	BB	0.19
6	5.61	Methacrolein	0.0074	1.935	2971	1.864	BV	0.14
7	5.98	MEK & Butyraldehyde	0.0433	11.339	14014	8.795	VB	0.17
8	8.46	Valeraldehyde	0.0158	4.129	4401	2.762	BB	0.36
9	12.05	Hexaldehyde	0.0086	2.252	2054	1.289	BB	0.27

Total Area = 159353.6 Total Height = 18935.35 Total Amount = 0.3817984

HP
08/16/13



Sample Name = **131067-65432**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0028.RAW**
Date Taken (end) = 8/15/2013 1:57:41 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 = 28
Dilution Factor = 1

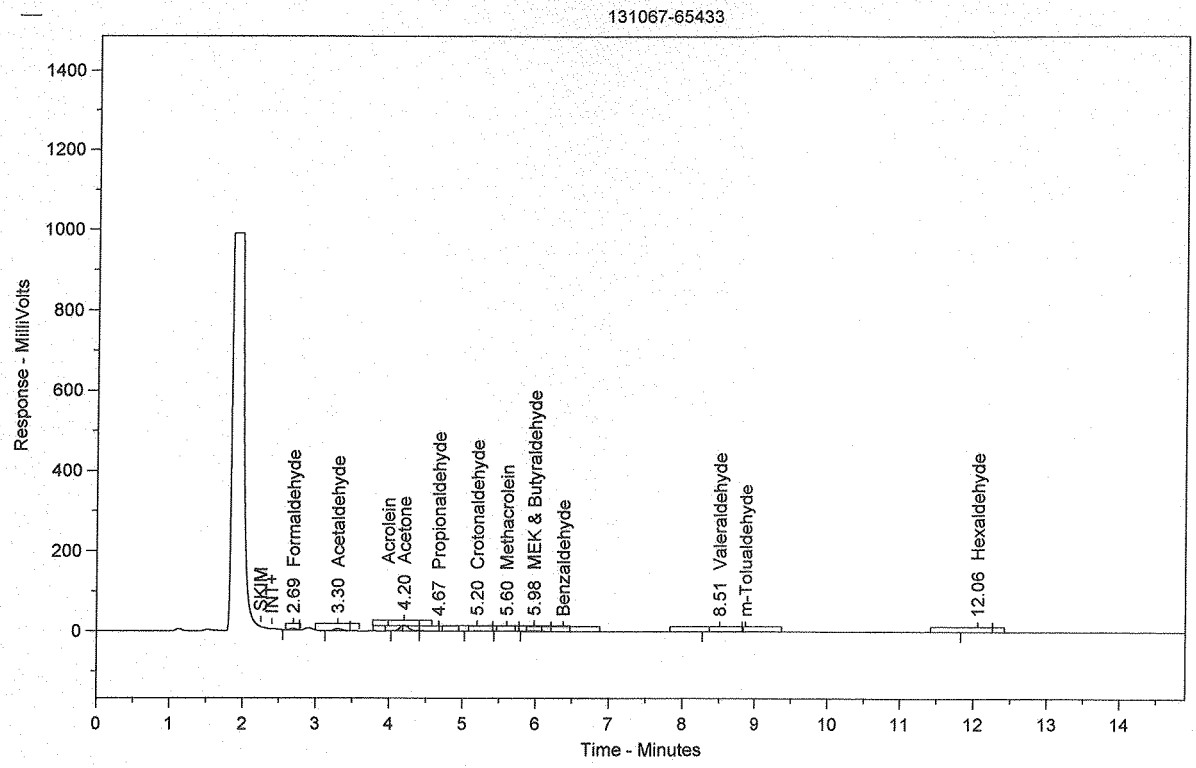
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0289	5.962	18599	9.179	BB	0.10
2	3.30	Acetaldehyde	0.0454	9.361	23978	11.835	BB	0.12
3	4.20	Acetone	0.2564	52.890	106763	52.694	SBB	0.13
4	4.40	Propionaldehyde	0.0181	3.724	7465	3.684	TBB	0.11
5	5.19	Crotonaldehyde	0.0490	10.107	18625	9.193	BB	0.17
6	5.60	Methacrolein	0.0095	1.970	3839	1.895	BV	0.14
7	5.97	MEK & Butyraldehyde	0.0494	10.187	15986	7.890	VB	0.17
8	8.47	Valeraldehyde	0.0158	3.268	4422	2.183	BB	0.33
9	12.05	Hexaldehyde	0.0123	2.532	2933	1.448	BB	0.30

Total Area = 202610.8

Total Height = 23606.89

Total Amount = 0.4847599

HP
08/16/13



Sample Name = **131067-65433**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0029.RAW**
Date Taken (end) = 8/15/2013 2:14:23 PM

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

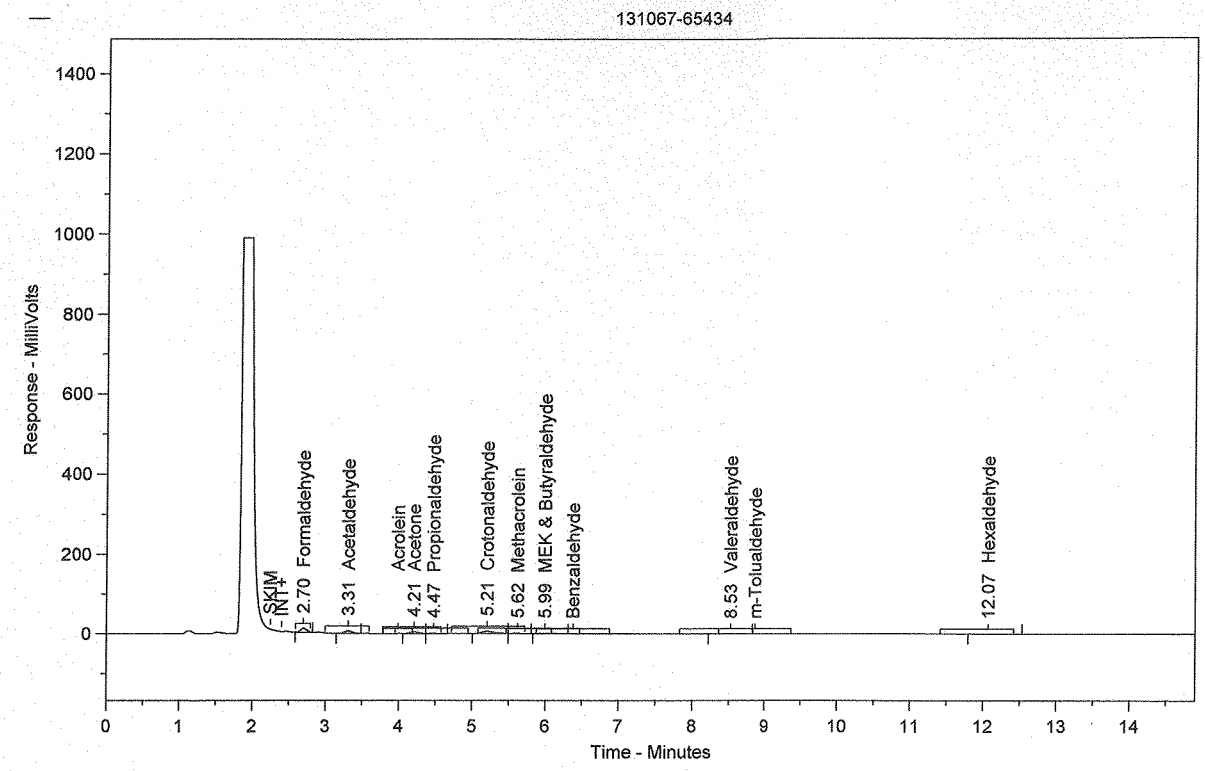
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Vial Number = 29
Injection Volume = 10
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0308	5.906	19810	8.840	BB	0.10
2	3.30	Acetaldehyde	0.0762	14.617	40261	17.965	BB	0.12
3	4.20	Acetone	0.2985	57.257	124279	55.456	BV	0.13
4	4.67	Propionaldehyde	0.0146	2.801	6036	2.694	VB N	0.15
5	5.20	Crotonaldehyde	0.0222	4.261	8444	3.768	BB	0.18
6	5.60	Methacrolein	0.0103	1.971	4131	1.843	BB	0.17
7	5.98	MEK & Butyraldehyde	0.0500	9.585	16174	7.217	BB	0.19
8	8.51	Valeraldehyde	0.0120	2.305	3354	1.497	BB	0.37
9	12.06	Hexaldehyde	0.0068	1.296	1614	0.720	BB	0.27

Total Area = 224104.5
Total Height = 26588.49
Total Amount = 0.521246

HP
08/16/13



Sample Name = **131067-65434** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\081513TO-11\081513.0030.RAW**
Date Taken (end) = 8/15/2013 2:31:03 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 = 30
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	0.0968	16.866	62291	24.577	BB	0.10
2	3.31	Acetaldehyde	0.0873	15.204	46111	18.193	BB	0.12
3	4.21	Acetone	0.0953	16.605	39686	15.658	BV	0.13
4	4.47	Propionaldehyde	0.0283	4.925	11687	4.611	VB	0.15
5	5.21	Crotonaldehyde	0.1604	27.938	60960	24.052	BV	0.17
6	5.62	Methacrolein	0.0141	2.463	5683	2.242	VB	0.21
7	5.99	MEK & Butyraldehyde	0.0494	8.599	15977	6.304	BB	0.28
8	8.53	Valeraldehyde	0.0226	3.929	6296	2.484	BB	0.35
9	12.07	Hexaldehyde	0.0199	3.473	4762	1.879	BB	0.29

Total Area = 253453.8 Total Height = 29598.06 Total Amount = 0.5739623

HP
08/16/13

File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\081513 (TO-11).SEQ
File Date = 8/15/2013 6:43:25 AM
Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	081513.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	081513.0002.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS061113-01)	2	1
3	081513.0003.raw	061113 TO-11A.MET	SS 2.50 ppm (PS011613-01)	3	1
4	081513.0004.raw	061113 TO-11A.MET	TO-11 Method Blank	4	1
5	081513.0005.raw	061113 TO-11A.MET	LCS Blank	5	1
6	081513.0006.raw	061113 TO-11A.MET	LCS .379ug/mL (PS011013-01)	6	1
7	081513.0007.raw	061113 TO-11A.MET	MS 131074-65482 1.25 ppm [(PS061113-01x2]	7	1
8	081513.0008.raw	061113 TO-11A.MET	MSD 131074-65482 1.25 ppm [(PS061113-01x2]	8	1
9	081513.0009.raw	061113 TO-11A.MET	131074-65482	9	1
10	081513.0010.raw	061113 TO-11A.MET	131074-65482 dup	10	1
11	081513.0011.raw	061113 TO-11A.MET	131075-65483	11	1
12	081513.0012.raw	061113 TO-11A.MET	ACN Blank	12	1
13	081513.0013.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	081513.0014.raw	061113 TO-11A.MET	131073-65481	14	1
15	081513.0015.raw	061113 TO-11A.MET	131073-65481 Dup	15	1
16	081513.0016.raw	061113 TO-11A.MET	131073-65473	16	1
17	081513.0017.raw	061113 TO-11A.MET	131073-65474	17	1
18	081513.0018.raw	061113 TO-11A.MET	131073-65475	18	1
19	081513.0019.raw	061113 TO-11A.MET	131073-65476	19	1
20	081513.0020.raw	061113 TO-11A.MET	131073-65477	20	1
21	081513.0021.raw	061113 TO-11A.MET	131073-65478	21	1
22	081513.0022.raw	061113 TO-11A.MET	131073-65479	22	1
23	081513.0023.raw	061113 TO-11A.MET	ACN Blank	23	1
24	081513.0024.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	24	1
25	081513.0025.raw	061113 TO-11A.MET	131073-65480	25	1
26	081513.0026.raw	061113 TO-11A.MET	131073-65480 Dup	26	1
27	081513.0027.raw	061113 TO-11A.MET	131067-65431	27	1
28	081513.0028.raw	061113 TO-11A.MET	131067-65432	28	1
29	081513.0029.raw	061113 TO-11A.MET	131067-65433	29	1
30	081513.0030.raw	061113 TO-11A.MET	131067-65434	30	1
31	081513.0031.raw	061113 TO-11A.MET	ACN Blank	31	1
32	081513.0032.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	32	1