Atmospheric Analysis & Consulting, Inc.

Client	: SWAPE
Client Project Name	: Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No.	: NA
AAC Project No.	: 130889
Reporting Date	: 07/17/2013

On July 12, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) DNPH impregnated silica gel cartridges for Carbonyls analysis by EPA Method TO-11A. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client Sample ID	AAC Sample ID
U-1 K DNPH	130889-64404
D-1 W6 DNPH	130889-64405
D-2 W6 East DNPH	130889-64406
D-3 Keefer Group DNPH	130889-64407

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 55 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

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Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **130889** **Received By: J. Zachman**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
7/12/2013 1115	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 K DNPH	Tube	7/11/2013	Client	64404	TO-11A
7/12/2013 1115	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W6 DNPH	Tube	7/11/2013	Client	64405	TO-11A
7/12/2013 1115	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 W6 East DNPH	Tube	7/11/2013	Client	64406	TO-11A
7/12/2013 1115	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-3 Keefer Group DNPH	Tube	7/11/2013	Client	64407	TO-11A

TURN AROUND TIME: Normal (10days)

Lab Due Date: 7/19/2013

Total Samples: 4

REMARKS:

Samples received at 4.0*C. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."

AAC#130889

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: **July 11th, 2013**
Project Manager: PAUL ROSENFELD, PH.D.		Page 1 of 1
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	Carboxlyic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Sample Volume
64404	U-1 K	DNPH	Tube	July 11th	4 Hr			X											Tube # 4440601053 248.76 L
64405	D-1 W6	DNPH	Tube	July 11th	4 Hr			X											Tube # 4440601370 246.36 L
64406	D-2 W6 East	DNPH	Tube	July 11th	4 Hr			X											Tube # 4440601373 246.48 L
64407	D-3 Keefer Group	DNPH	Tube	July 11th	4 Hr			X											Tube # 4440601052 223.56 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: John Blank	Date: July 11th, 2013	12 Noon	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 07/12/13	Time: 11:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

AAC# 130889

AIR SAMPLING PUMP CALIBRATION LOG

Bridgeton Sanitary Landfill Air Quality Assessment

COMPLETED BY: John Blank

DATE: July 11th 27th, 2013

PAGE: 1 of 1

CALIBRATION INSTRUMENT : *Biose Defender510*

INITIAL PUMP SETUP (PRE-SAMPLING FLOW CHECK)

	Sample ID	Analyte	SKC Tube ID	Air Pump Serial No.	START		END		Total Volume
	e.g. acetaldehyde	e.g. acetaldehyde	e.g. 226-120	e.g. 123456	Flow Rate (L/min)	Start Time (24 Hour)	Flow Rate (L/min)	Stop Time (24 Hour)	Liters
64404	U-1 K	Aldehydes	4440601053	67992	1.026	9:25:00	1.047	13:25:00	248.76
64405	D-1 W6	Aldehydes	4440601370	59912	1.013	9:45:00	1.04	13:45:00	246.36
64406	D-2 W6 East	Aldehydes	4440601373	67385	1.029	10:00:00	1.025	14:00:00	246.48
64407	D-3 Keefer Group	Aldehydes	4440601052	67835	1.026	10:15:00	0.837	14:15:00	223.56

NOTES / LOCATION REFERENCES

TUBES:	ANALYTE	SKC TUBE ID	SKC TUBE ID
	Aldehydes	226-120	226-10-03
	Amines	226-10	226-28
	Ammonia	226-29	226-17-1A
	Carboxylic Acids	226-55	226-80

Results

Atmospheric Analysis & Consulting, Inc.

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

Client : SWAPE
Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
AAC Project No. : 130889
Analyst : HP/EG
Units : ppbv

Sampling Date (s) : 07/11/2013
Receiving Date : 07/12/2013
Analysis Date : 07/16/2013
Reporting Date : 07/17/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 K DNPH	130889-64404	0.273	0.201	<SRL	1.39	<SRL	0.167	<SRL	0.151	<SRL	<SRL	<SRL	<SRL
SRL		0.245	0.167	0.131	0.127	0.127	0.105	0.105	0.102	0.069	0.086	0.061	0.074
D-1 W6 DNPH	130889-64405	0.665	0.445	<SRL	1.89	<SRL	0.134	<SRL	0.474	<SRL	<SRL	<SRL	<SRL
SRL		0.248	0.169	0.133	0.128	0.128	0.106	0.106	0.103	0.070	0.086	0.062	0.074
D-2 W6 East DNPH	130889-64406	0.482	0.367	<SRL	1.54	<SRL	0.179	0.108	0.299	<SRL	<SRL	<SRL	<SRL
SRL		0.248	0.169	0.133	0.128	0.128	0.106	0.106	0.103	0.070	0.086	0.062	0.074
D-3 Keefer Group DNPH	130889-64407	0.380	0.267	<SRL	1.48	<SRL	<SRL	<SRL	0.265	<SRL	<SRL	<SRL	<SRL
SRL		0.273	0.186	0.146	0.141	0.141	0.117	0.117	0.114	0.077	0.095	0.068	0.082

<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
Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
AAC Project No. : 130889
Analyst : HP/EG
Units : ug/m^3

Sampling Date (s) : 07/11/2013
Receiving Date : 07/12/2013
Analysis Date : 07/16/2013
Reporting Date : 07/17/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 K DNPH	130889-64404	0.335	0.363	<SRL	3.30	<SRL	0.479	<SRL	0.446	<SRL	<SRL	<SRL	<SRL
SRL		0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.301
D-1 W6 DNPH	130889-64405	0.817	0.801	<SRL	4.48	<SRL	0.384	<SRL	1.40	<SRL	<SRL	<SRL	<SRL
SRL		0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304
D-2 W6 East DNPH	130889-64406	0.592	0.661	<SRL	3.66	<SRL	0.512	0.309	0.881	<SRL	<SRL	<SRL	<SRL
SRL		0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304
D-3 Keefer Group DNPH	130889-64407	0.467	0.482	<SRL	3.51	<SRL	<SRL	<SRL	0.782	<SRL	<SRL	<SRL	<SRL
SRL		0.335	0.335	0.335	0.335	0.335	0.335	0.335	0.335	0.335	0.335	0.335	0.335

<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. : 130889
Analyst : HP/EG
Units : ug/sample

Sampling Date (s) : 07/11/2013
Receiving Date : 07/12/2013
Analysis Date : 07/16/2013
Reporting Date : 07/17/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 K DNPH	130889-64404	0.083	0.090	<SRL	0.820	<SRL	0.119	<SRL	0.111	<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 W6 DNPH	130889-64405	0.201	0.197	<SRL	1.10	<SRL	0.095	<SRL	0.345	<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 East DNPH	130889-64406	0.146	0.163	<SRL	0.901	<SRL	0.126	0.076	0.217	<SRL	<SRL	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-3 Keefer Group DNPH	130889-64407	0.104	0.108	<SRL	0.784	<SRL	<SRL	<SRL	0.175	<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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Laboratory Director

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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 : 07/16/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Opening CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.52	2.53	2.53	2.53	2.53	2.53	2.54	5.05	2.52	2.52	2.50	2.53
Accuracy (%)*	101	101	101	101	101	101	102	101	101	101	100	101

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	2.51	2.51	2.54	2.50	2.52	2.52	2.53	5.03	2.52	2.51	2.50	2.49
Accuracy (%)*	100	100	102	100	101	101	101	101	101	100	100	99.6

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	2.55	2.58	2.61	2.56	2.56	2.58	2.59	5.15	2.56	2.57	2.55	2.56
Accuracy (%)*	102	103	104	102	102	103	104	103	102	103	102	102

Closing CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.65	2.64	2.68	2.63	2.64	2.68	2.68	5.28	2.60	2.63	2.62	2.63
Accuracy (%)*	106	106	107	105	106	107	107	106	104	105	105	105

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	2.56	2.56	2.55	2.56	2.55	2.55	2.57	5.09	2.55	2.54	2.52	2.56
Accuracy (%)*	102	102	102	102	102	102	103	102	102	102	101	102

*Must be 100 ± 10%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

Laboratory Control Spike Analysis

Analysis Date : 07/16/2013 Analyst : HP/EG Instrument ID : HPLC 01

Analytes	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Laboratory Control Spike 1												
Sample Concentration (ug/mL)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spike Concentration (ug/mL)	0.379	0.379	0.379	0.379	0.379	0.379	0.379	0.758	0.379	0.379	0.379	0.379
Spiked Sample Concentration (ug/mL)	0.365	0.364	0.377	0.373	0.371	0.360	0.402	0.708	0.360	0.367	0.369	0.367
Spike Recovery (%)*	96.4	96.1	99.4	98.4	97.9	95.0	106	93.5	95.1	96.8	97.5	96.8

*Must be 100 ± 15%

Marcus Hueppe
Laboratory Director

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Atmospheric Analysis & Consulting, Inc.

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

Analysis Date : 07/16/2013

Analyst : HP/EG

Instrument ID : HPLC 01

Analytes	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Sample ID	130870-64299											
Sample Concentration (ug/mL)	0.001	0.004	0.000	0.052	0.000	0.000	0.000	0.004	0.006	0.006	0.017	0.005
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25
Spiked Sample Concentration (ug/mL)	1.28	1.28	1.32	1.37	1.30	1.32	1.43	2.50	1.31	1.31	1.32	1.30
Duplicate Spiked Sample Concentration (ug/mL)	1.30	1.30	1.34	1.40	1.32	1.34	1.45	2.53	1.32	1.33	1.34	1.33
Spike Recovery (%)*	102	102	106	105	104	106	114	100	104	104	104	104
Dulicate Spike Recovery (%)*	104	104	107	108	106	107	116	101	105	106	106	106
RPD**	1.6	1.6	1.5	2.2	1.5	1.5	1.4	1.2	0.8	1.5	1.5	2.3

*Must be 100± 25%

** Must be ≤ 25%

Marcus Hueppe
Laboratory Director

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

Instrument ID : HPLC 01

Analysis Date : 07/16/2013
Analyst : HP/EG

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	130870-64299											
Sample Concentration (ug/mL)	<RL	<RL	ND	0.103	ND	ND	ND	<RL	<RL	<RL	0.034	<RL
Duplicate Sample Concentration (ug/mL)	<RL	<RL	ND	0.102	ND	ND	ND	<RL	<RL	<RL	0.032	<RL
RPD**	NA	NA	NA	1.8	NA	NA	NA	NA	NA	NA	6.6	NA
Sample ID	130870-64292											
Sample Concentration (ug/mL)	0.169	0.116	<RL	0.431	<RL	<RL	<RL	0.056	<RL	0.040	0.034	0.027
Duplicate Sample Concentration (ug/mL)	0.169	0.118	<RL	0.431	<RL	<RL	<RL	0.057	<RL	0.038	0.034	0.026
RPD**	0.1	1.5	NA	0.1	NA	NA	NA	1.6	NA	4.6	0.3	4.2
Sample ID	130849-64199											
Sample Concentration (ug/mL)	0.061	0.059	ND	0.308	<RL	<RL	<RL	0.068	<RL	0.037	ND	<RL
Duplicate Sample Concentration (ug/mL)	0.062	0.059	ND	0.305	<RL	<RL	<RL	0.070	<RL	0.036	ND	<RL
RPD**	1.5	0.7	NA	0.8	NA	NA	NA	4.1	NA	1.9	NA	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 : 07/16/2013
Analyst : HP/EG

Instrument ID : HPLC 01

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

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

Marcus Hueppe
Laboratory Director

Calibration Summary

File Name:	C:\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

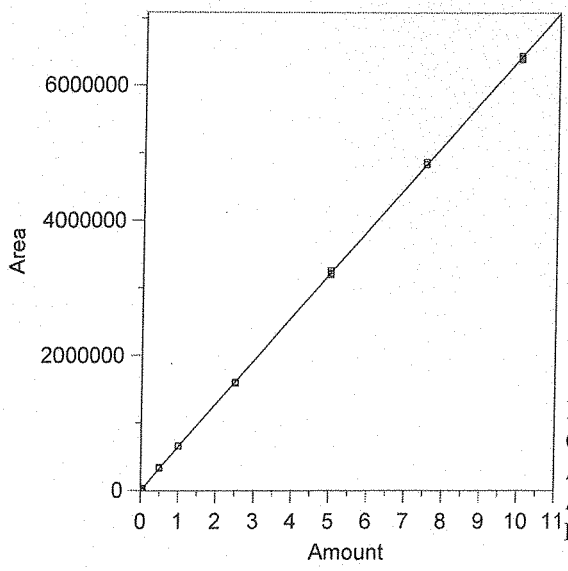
Area reject threshold:	1000
Reference peak area reject threshold:	1000
Amount units:	ug/ml

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

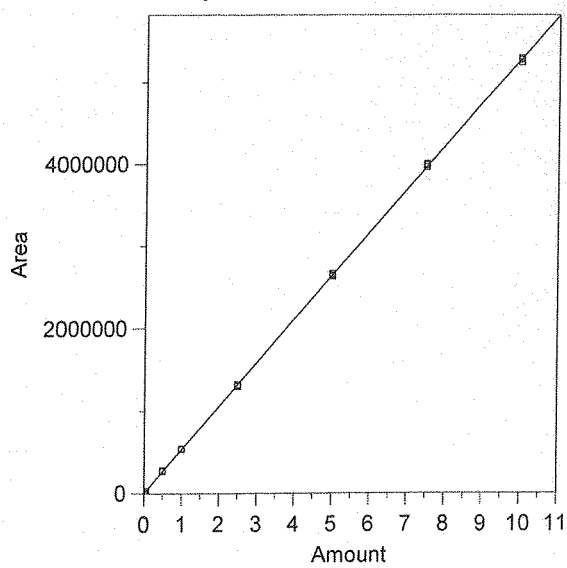
$Y = 643471.9 X + 0$

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

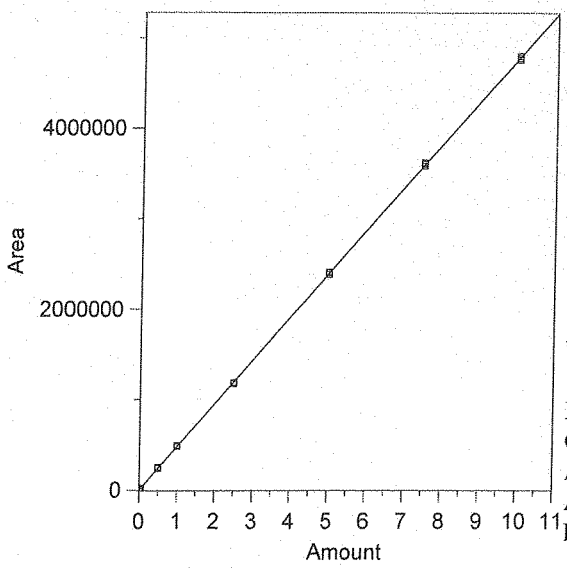
Single peak quantification by area

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

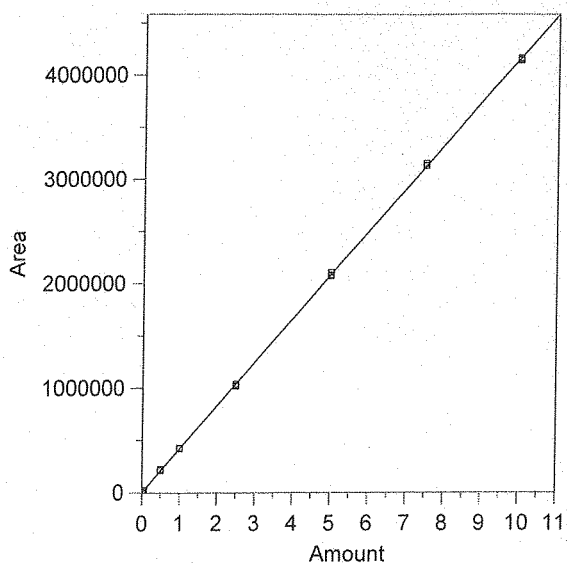
Single peak quantification by area

$Y = 479129.3\ X + 0$

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

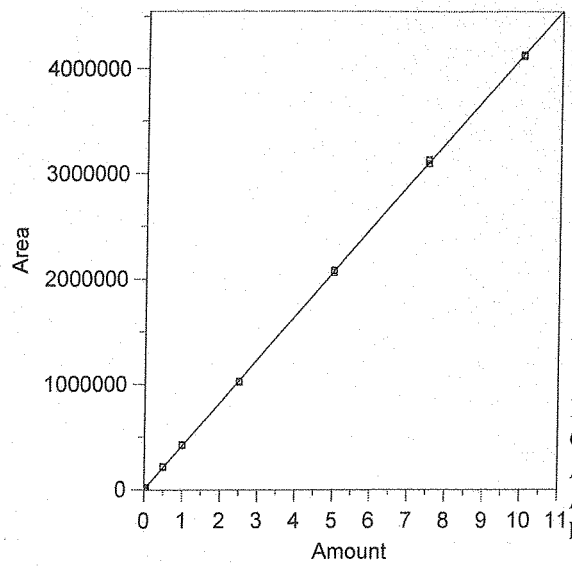
Single peak quantification by area

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

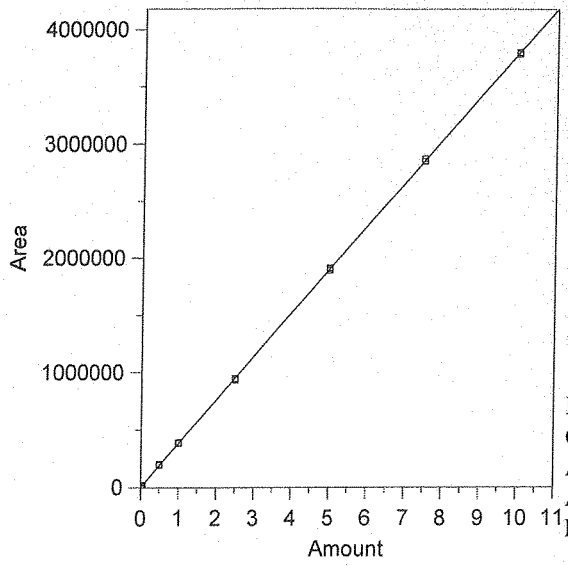
Single peak quantification by area

$Y = 413491.1 X + 0$

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

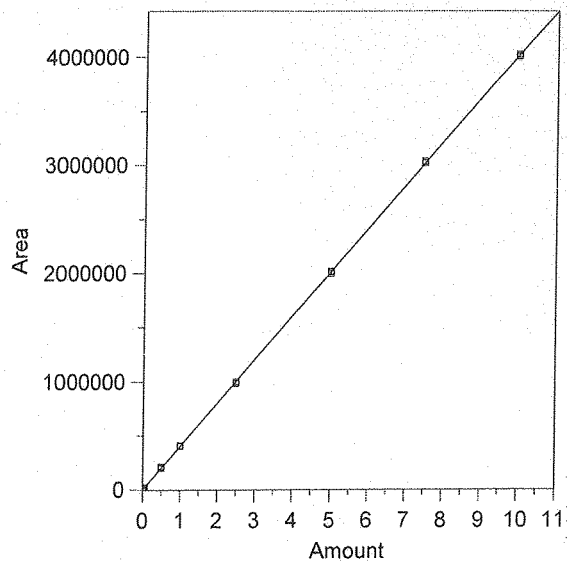
Single peak quantification by area

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

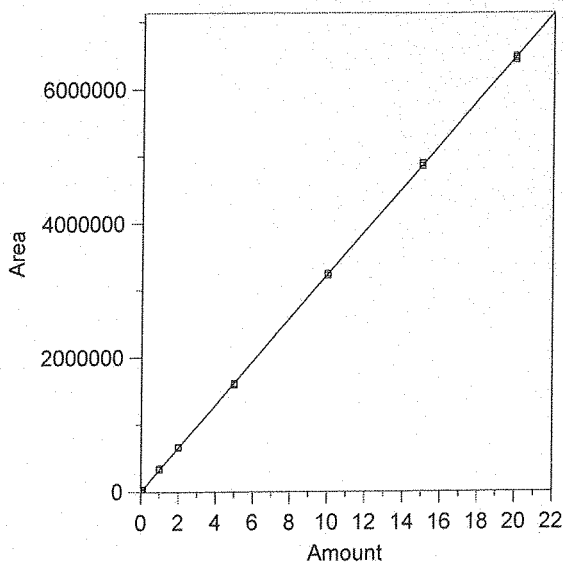
$Y = 402103.5 X + 0$

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

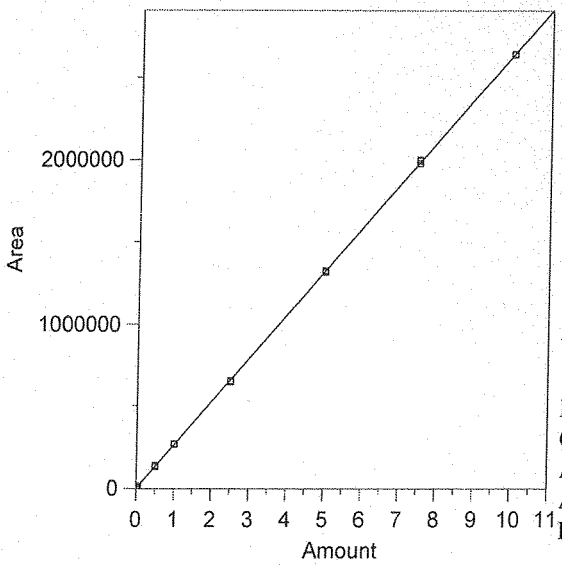
$Y = 323725.3\ X + 0$

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

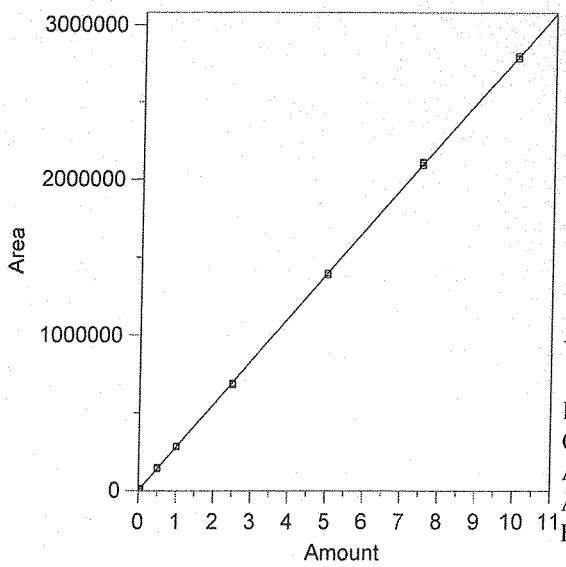
Y = 264532.8 X + 0

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

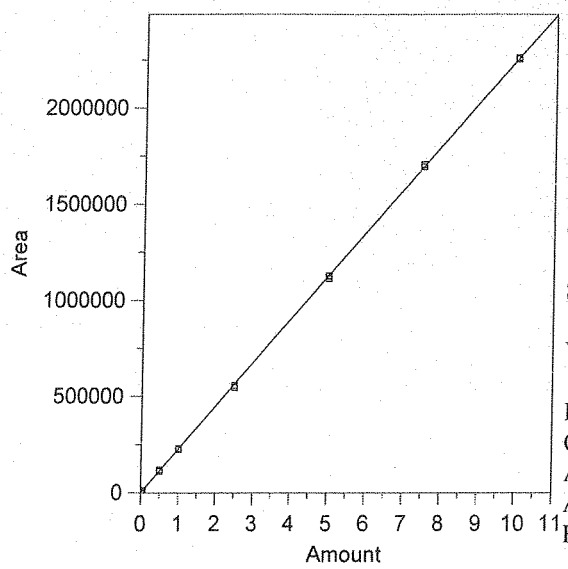
Single peak quantification by area

$Y = 279178.6 X + 0$

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

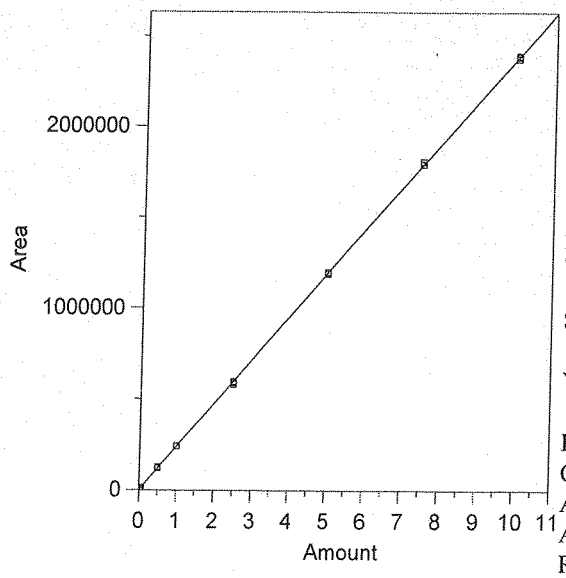
Single peak quantification by area

$Y = 225671.2 X + 0$

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

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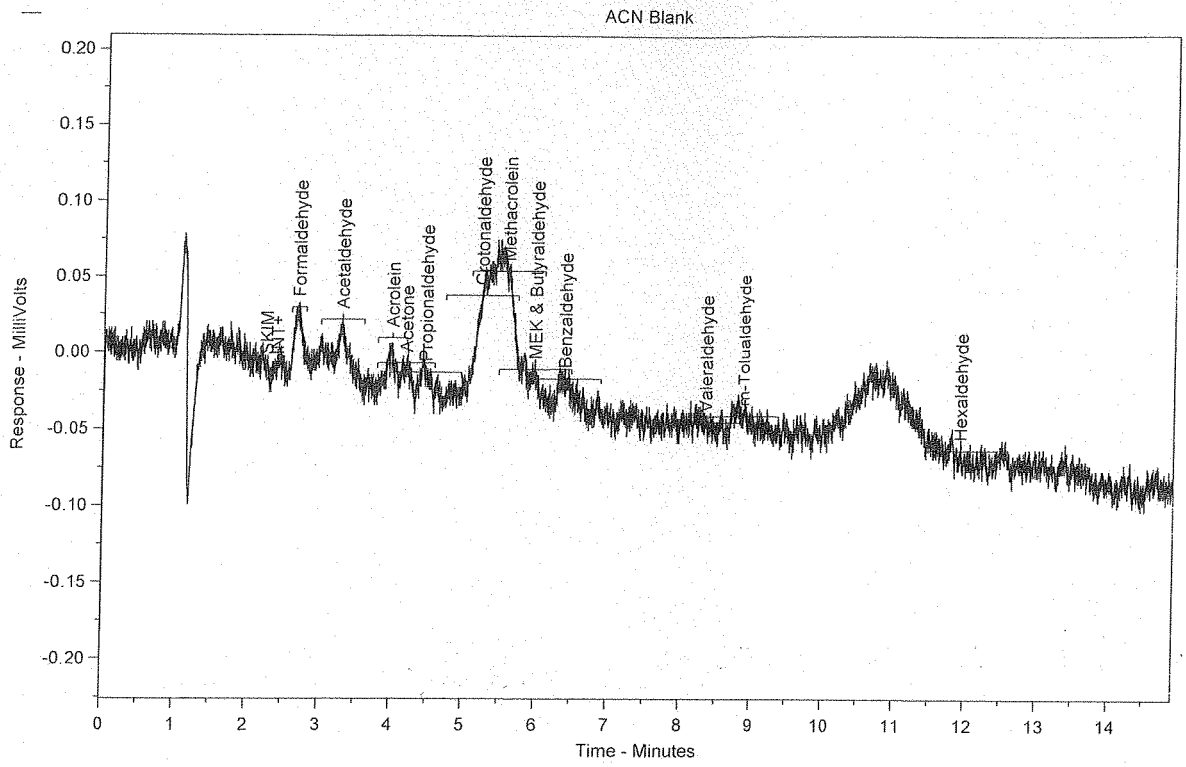
Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	061113.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	061113.0002.raw	061113 TO-11A.MET	STD 1-1 (.005ug/ml [PS061113-01)x2000]	2	1
3	061113.0003.raw	061113 TO-11A.MET	STD 1-2 (.005ug/ml [PS061113-01)x2000]	2	1
4	061113.0004.raw	061113 TO-11A.MET	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\071713TO-11\071713.0001.RAW**
Date Taken (end) = 7/16/2013 5:51:16 PM

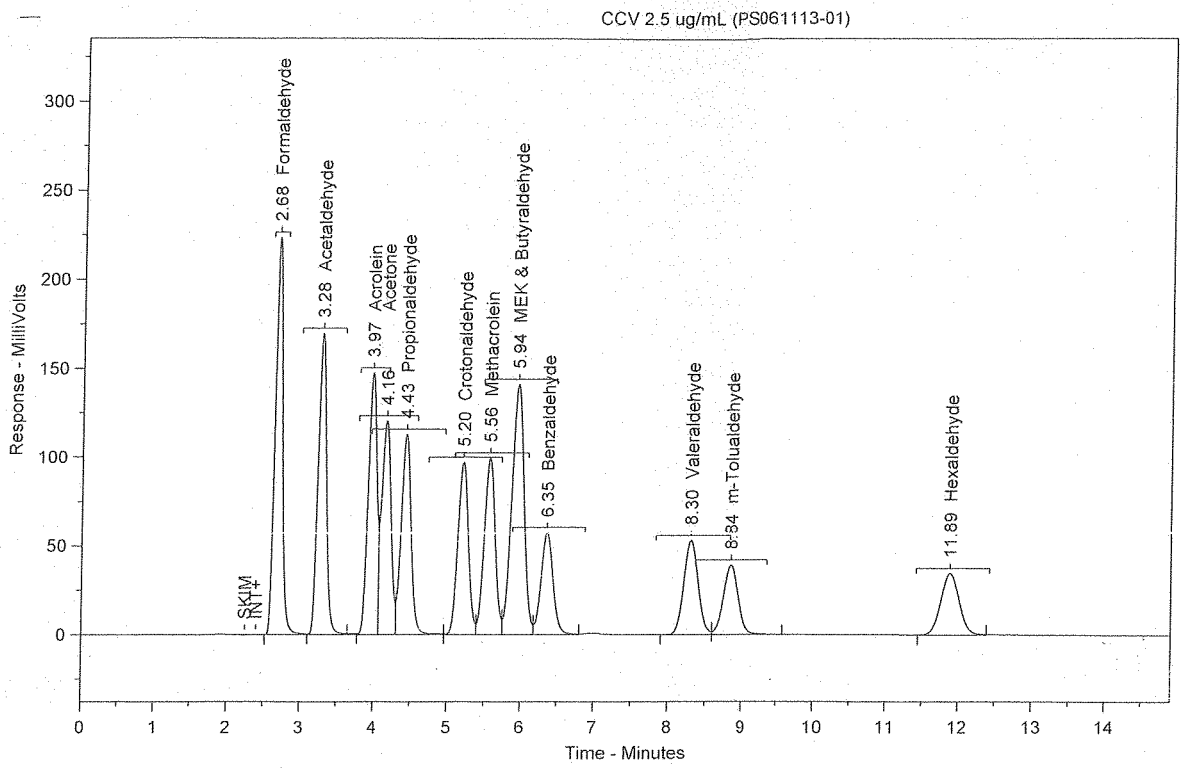
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 1
Injection Volume = 10 Dilution Factor = 1

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

Total Area = 0 Total Height = 0 Total Amount = 0



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0002.RAW**
Date Taken (end) = 7/16/2013 6:07:52 PM

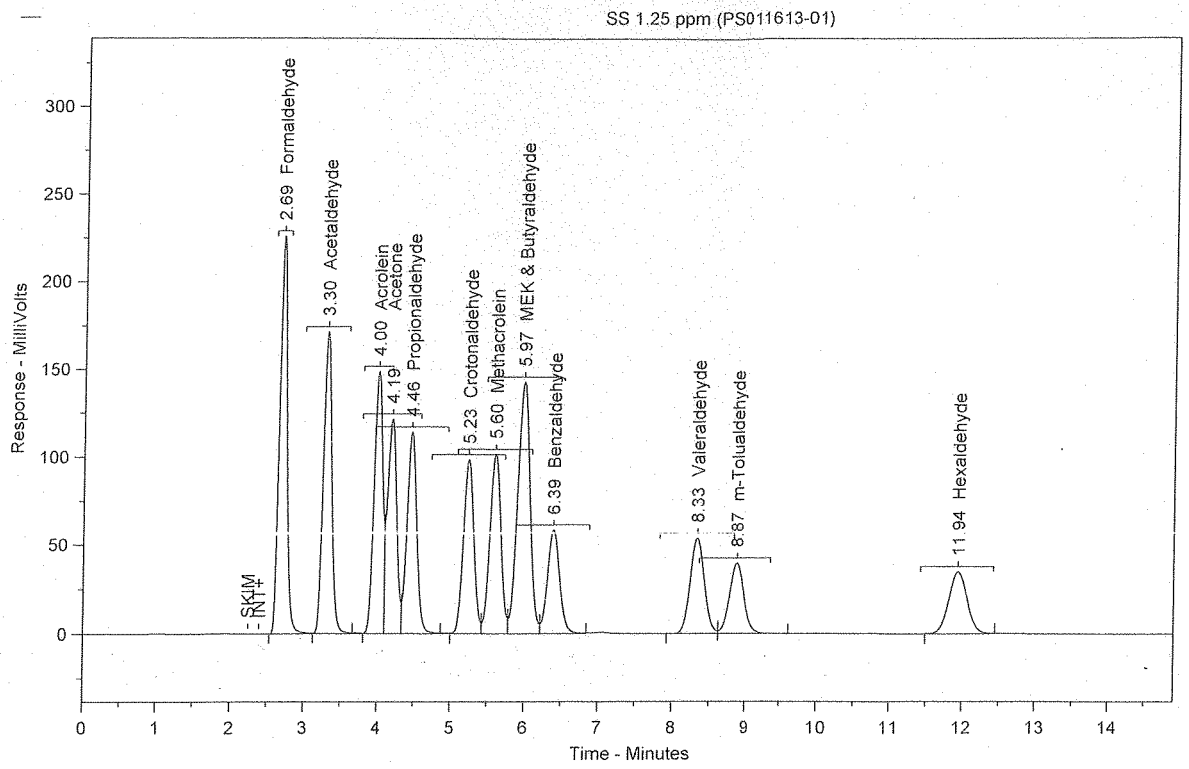
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	2.5234	7.684	1623716	13.063	SBB	0.11
2	3.28	Acetaldehyde	2.5265	7.694	1335035	10.740	TBV	0.12
3	3.97	Acrolein	2.5316	7.709	1212942	9.758	TVV	0.14
4	4.16	Acetone	2.5282	7.699	1052789	8.470	TVV	0.13
5	4.43	Propionaldehyde	2.5340	7.717	1047779	8.429	TVV	0.14
6	5.20	Crotonaldehyde	2.5298	7.704	961722	7.737	TVV	0.15
7	5.56	Methacrolein	2.5417	7.740	1022012	8.222	TVV	0.15
8	5.94	MEK & Butyraldehyde	5.0462	15.367	1633587	13.142	TVV	0.18
9	6.35	Benzaldehyde	2.5249	7.689	667924	5.373	TVB	0.18
10	8.30	Valeraldehyde	2.5218	7.680	704045	5.664	BV	0.21
11	8.84	m-Tolualdehyde	2.4976	7.606	563628	4.534	VB	0.22
12	11.89	Hexaldehyde	2.5320	7.711	604960	4.867	BB	0.27

Total Area = 1.243014E+07 Total Height = 1296283 Total Amount = 32.83762



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0003.RAW**
Date Taken (end) = 7/16/2013 6:24:27 PM

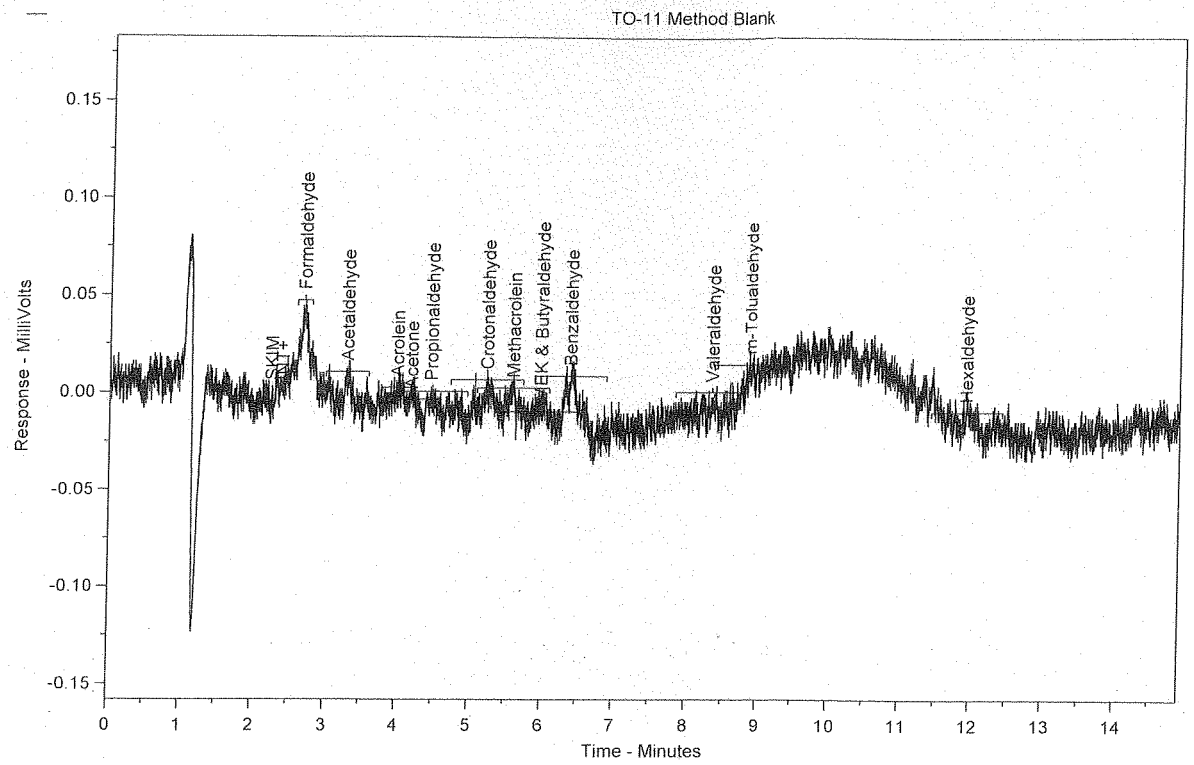
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 3
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.5571	7.710	1645396	13.104	SBB	0.11
2	3.30	Acetaldehyde	2.5567	7.709	1351007	10.759	TBV	0.12
3	4.00	Acrolein	2.5531	7.698	1223254	9.742	TVV	0.14
4	4.19	Acetone	2.5575	7.712	1064987	8.482	TVV	0.14
5	4.46	Propionaldehyde	2.5497	7.688	1054292	8.396	TVV	0.14
6	5.23	Crotonaldehyde	2.5515	7.693	969980	7.725	TVV	0.15
7	5.60	Methacrolein	2.5679	7.743	1032575	8.223	TVV	0.15
8	5.97	MEK & Butyraldehyde	5.0932	15.357	1648798	13.131	TVV	0.17
9	6.39	Benzaldehyde	2.5511	7.692	674840	5.374	TVB	0.18
10	8.33	Valeraldehyde	2.5437	7.670	710155	5.656	BV	0.21
11	8.87	m-Tolualdehyde	2.5194	7.597	568556	4.528	VB	0.22
12	11.94	Hexaldehyde	2.5639	7.731	612574	4.879	BB	0.27

Total Area = 1.255641E+07 Total Height = 1310809 Total Amount = 33.16481



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0004.RAW**
Date Taken (end) = 7/16/2013 6:41:02 PM

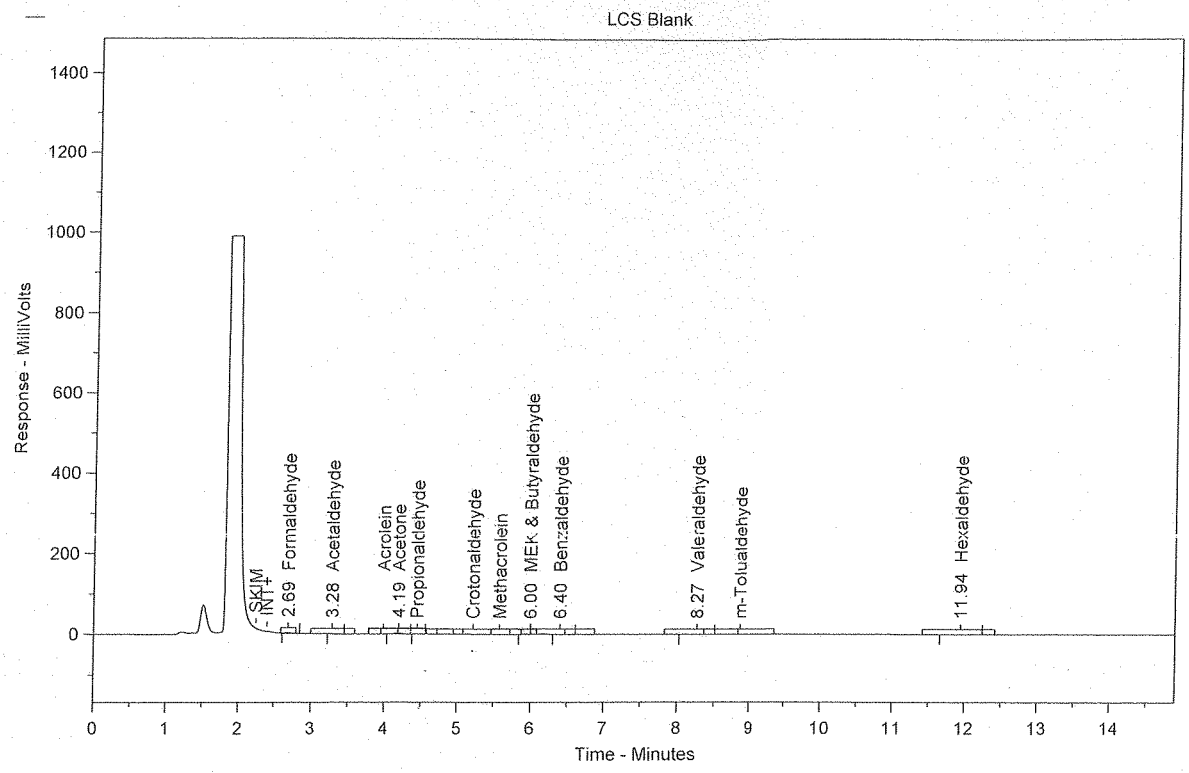
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 4
Injection Volume = 10 Dilution Factor = 1

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

Total Area = 0 Total Height = 0 Total Amount = 0



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0005.RAW**
Date Taken (end) = 7/16/2013 6:57:38 PM

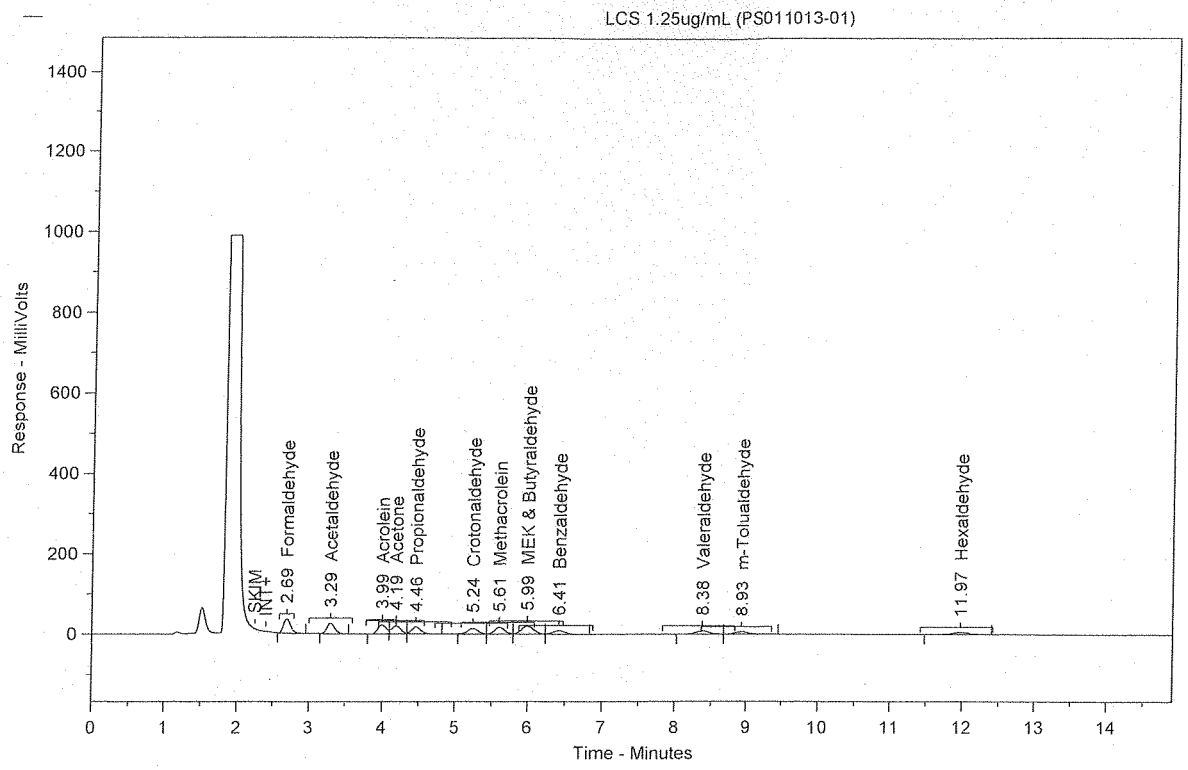
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 5
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0123	11.003	7883	18.346	BB	0.15
2	3.28	Acetaldehyde	0.0109	9.803	5768	13.423	BB	0.14
3	4.19	Acetone	0.0353	31.696	14696	34.202	BB	0.13
5	6.00	MEK & Butyraldehyde	0.0090	8.063	2906	6.764	BB	0.10
6	6.40	Benzaldehyde	0.0124	11.145	3283	7.640	BB	0.20
7	8.27	Valeraldehyde	0.0225	20.233	6289	14.637	BB	0.23
8	11.94	Hexaldehyde	0.0090	8.057	2143	4.988	BB	0.33

Total Area = 42969.01 Total Height = 5043.702 Total Amount = 0.1113454



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0006.RAW**
Date Taken (end) = 7/16/2013 7:14:13 PM

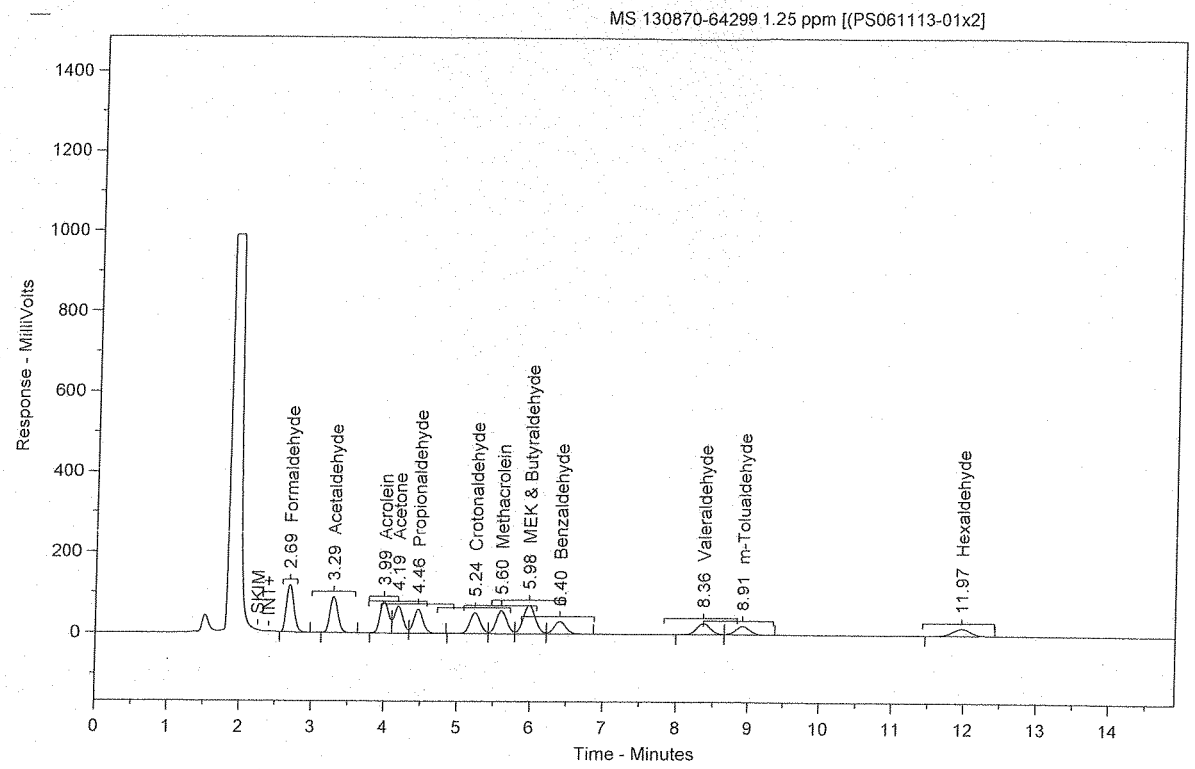
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.3775	7.714	242930	13.090	BB	0.11
2	3.29	Acetaldehyde	0.3750	7.663	198165	10.678	BB	0.12
3	3.99	Acrolein	0.3765	7.693	180385	9.720	BV	0.14
4	4.19	Acetone	0.4081	8.339	169950	9.158	VV	0.13
5	4.46	Propionaldehyde	0.3707	7.575	153284	8.260	VB	0.14
6	5.24	Crotonaldehyde	0.3600	7.356	136869	7.375	BV	0.15
7	5.61	Methacrolein	0.4023	8.221	161779	8.717	VV	0.15
8	5.99	MEK & Butyraldehyde	0.7171	14.652	232130	12.508	VV	0.18
9	6.41	Benzaldehyde	0.3725	7.611	98535	5.310	VB	0.18
10	8.38	Valeraldehyde	0.3892	7.953	108667	5.855	BV	0.21
11	8.93	m-Tolualdehyde	0.3694	7.548	83365	4.492	VB	0.22
12	11.97	Hexaldehyde	0.3757	7.676	89753	4.836	BB	0.28

Total Area = 1855810 Total Height = 196574.7 Total Amount = 4.894071



Sample Name = **MS 130870-64299 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0007.RAW**
Date Taken (end) = 7/16/2013 7:30:48 PM

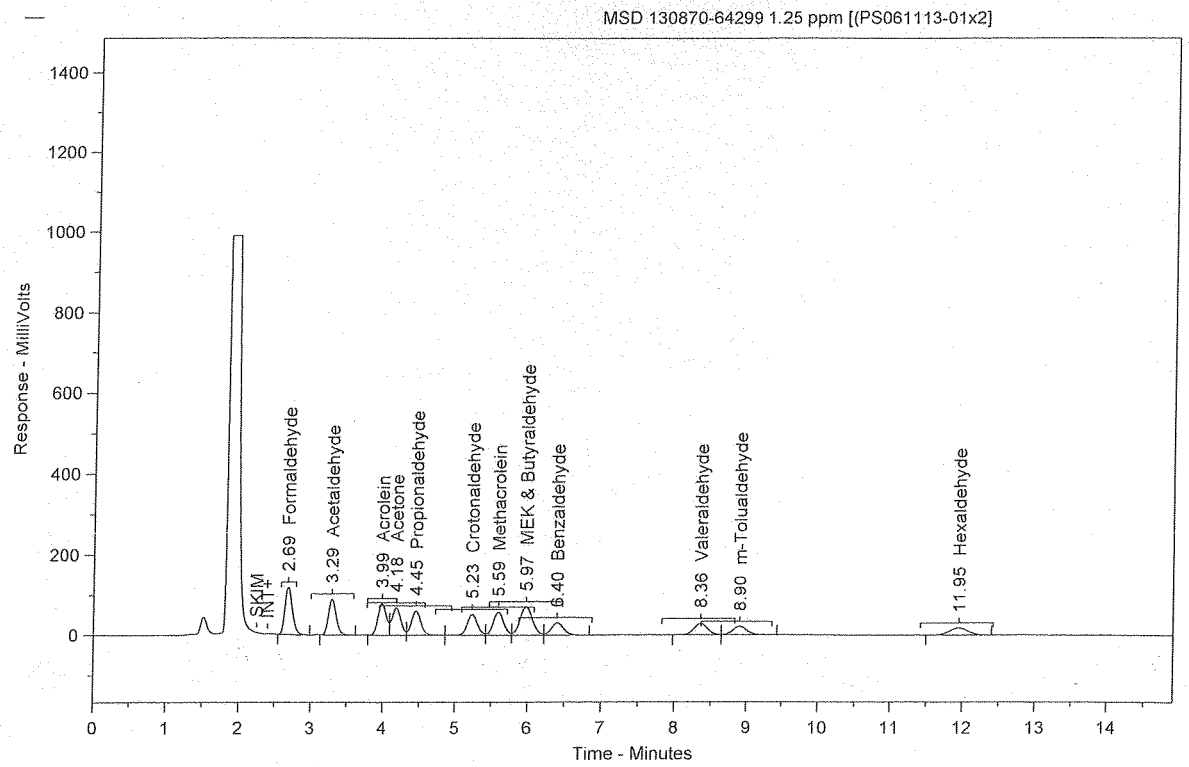
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	1.2809	7.525	824204	12.797	BB	0.11
2	3.29	Acetaldehyde	1.2765	7.499	674502	10.473	BB	0.12
3	3.99	Acrolein	1.3199	7.754	632422	9.819	BV	0.14
4	4.19	Acetone	1.3659	8.024	568795	8.831	VV	0.13
5	4.46	Propionaldehyde	1.2967	7.618	536187	8.325	VV	0.14
6	5.24	Crotonaldehyde	1.3207	7.758	502070	7.795	VV	0.15
7	5.60	Methacrolein	1.4278	8.387	574105	8.914	VV	0.15
8	5.98	MEK & Butyraldehyde	2.4956	14.661	807899	12.544	VV	0.18
9	6.40	Benzaldehyde	1.3056	7.670	345370	5.362	VB	0.18
10	8.36	Valeraldehyde	1.3126	7.711	366450	5.690	BV	0.21
11	8.91	m-Tolualdehyde	1.3227	7.770	298500	4.635	VB	0.22
12	11.97	Hexaldehyde	1.2977	7.623	310057	4.814	BB	0.28

Total Area = 6440559 Total Height = 679211.9 Total Amount = 17.02263



Sample Name = **MSD 130870-64299 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0008.RAW**
Date Taken (end) = 7/16/2013 7:47:24 PM

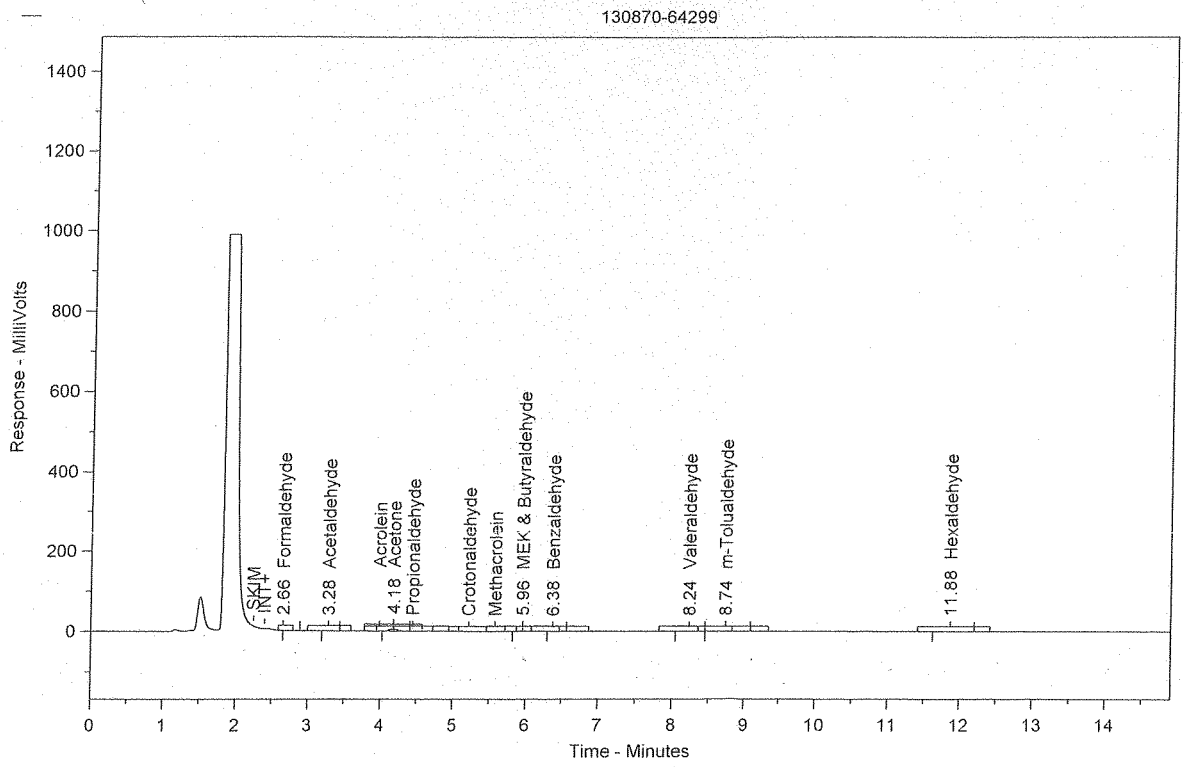
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	1.3029	7.531	838407	12.805	BB	0.11
2	3.29	Acetaldehyde	1.2973	7.499	685533	10.470	BB	0.12
3	3.99	Acrolein	1.3431	7.763	643508	9.828	BV	0.14
4	4.18	Acetone	1.4004	8.095	583137	8.906	VV	0.13
5	4.45	Propionaldehyde	1.3168	7.612	544502	8.316	VV	0.14
6	5.23	Crotonaldehyde	1.3386	7.738	508896	7.772	VV	0.15
7	5.59	Methacrolein	1.4512	8.388	583528	8.912	VV	0.15
8	5.97	MEK & Butyraldehyde	2.5334	14.644	820116	12.526	VV	0.18
9	6.40	Benzaldehyde	1.3203	7.631	349252	5.334	VB	0.17
10	8.36	Valeraldehyde	1.3292	7.683	371074	5.667	BV	0.20
11	8.90	m-Tolualdehyde	1.3377	7.732	301890	4.611	VB	0.22
12	11.95	Hexaldehyde	1.3293	7.684	317613	4.851	BB	0.28

Total Area = 6547454 Total Height = 691170.4 Total Amount = 17.30028



Sample Name = **130870-64299** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0009.RAW**
Date Taken (end) = 7/16/2013 8:04:02 PM

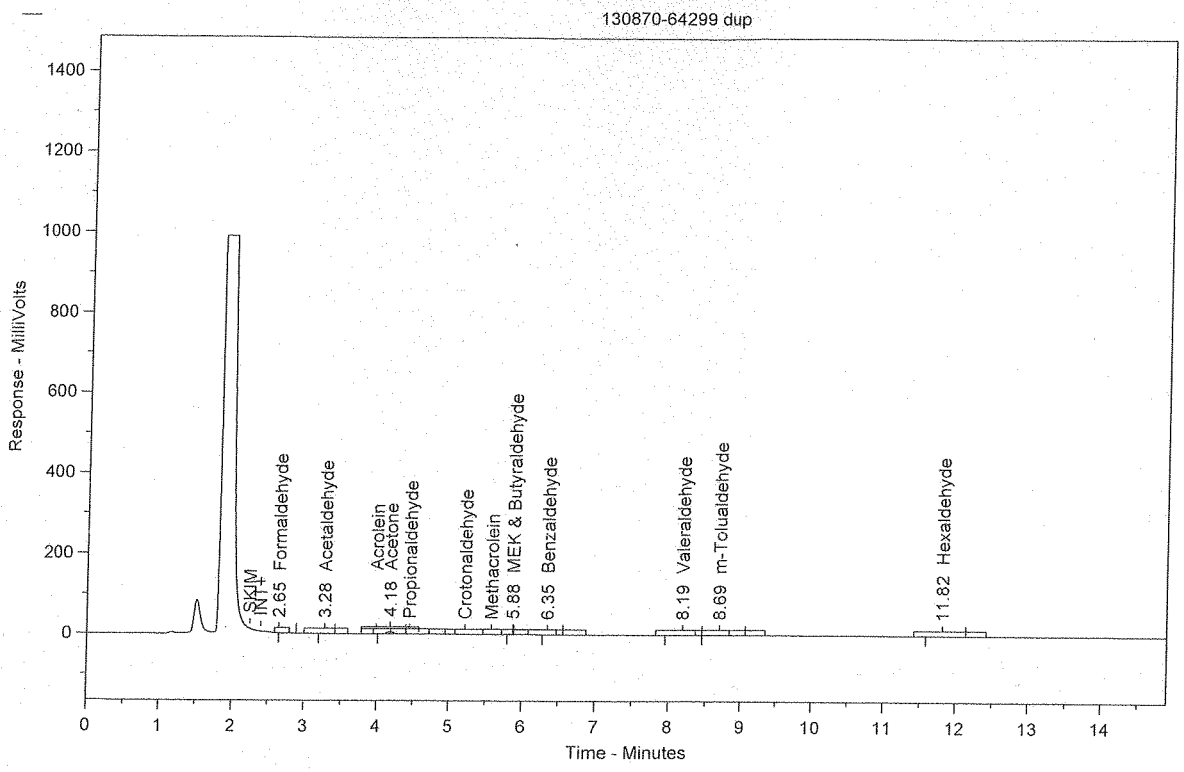
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 9
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	0.0028	1.439	1775	2.578	BB	0.16
2	3.28	Acetaldehyde	0.0089	4.621	4679	6.796	BB	0.16
3	4.18	Acetone	0.1033	53.916	43026	62.492	BB	0.13
4	5.96	MEK & Butyraldehyde	0.0082	4.293	2663	3.868	BB	0.07
5	6.38	Benzaldehyde	0.0111	5.797	2939	4.268	BB	0.18
6	8.24	Valeraldehyde	0.0128	6.681	3575	5.192	BV	0.22
7	8.74	m-Tolualdehyde	0.0342	17.847	7718	11.211	VB	0.25
8	11.88	Hexaldehyde	0.0104	5.406	2475	3.595	BB	0.31

Total Area = 68850.24 Total Height = 7488.965 Total Amount = 0.1916407



Sample Name = **130870-64299 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0010.RAW**
Date Taken (end) = 7/16/2013 8:20:38 PM

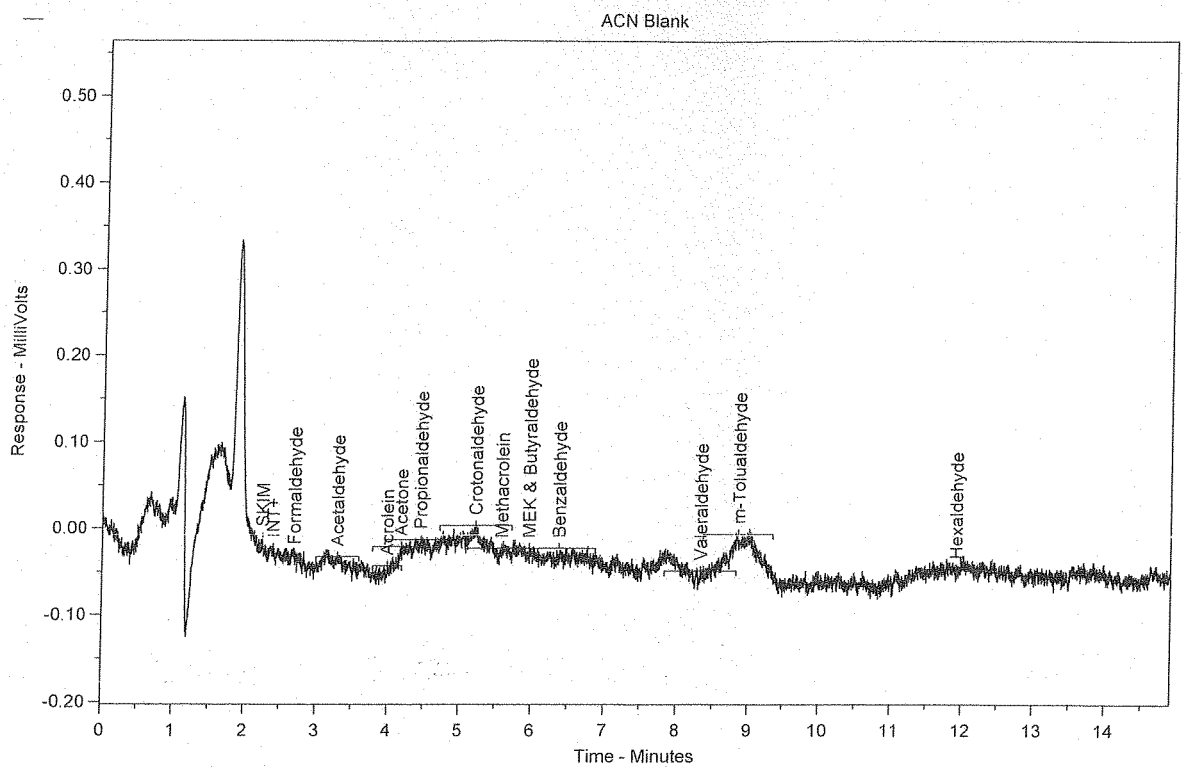
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.65	Formaldehyde	0.0026	1.377	1671	2.468	BB	0.16
2	3.28	Acetaldehyde	0.0086	4.536	4519	6.674	BB	0.16
3	4.18	Acetone	0.1015	53.817	42259	62.411	BB	0.13
4	5.88	MEK & Butyraldehyde	0.0084	4.464	2725	4.025	BB	0.06
5	6.35	Benzaldehyde	0.0106	5.645	2816	4.159	BB	0.18
6	8.19	Valeraldehyde	0.0138	7.326	3857	5.696	BV	0.29
7	8.69	m-Tolualdehyde	0.0320	16.979	7225	10.671	VB	0.25
8	11.82	Hexaldehyde	0.0110	5.856	2638	3.896	BB	0.34

Total Area = 67710.73 Total Height = 7435.418 Total Amount = 0.1885692



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0012.RAW**
Date Taken (end) = 7/16/2013 8:53:50 PM

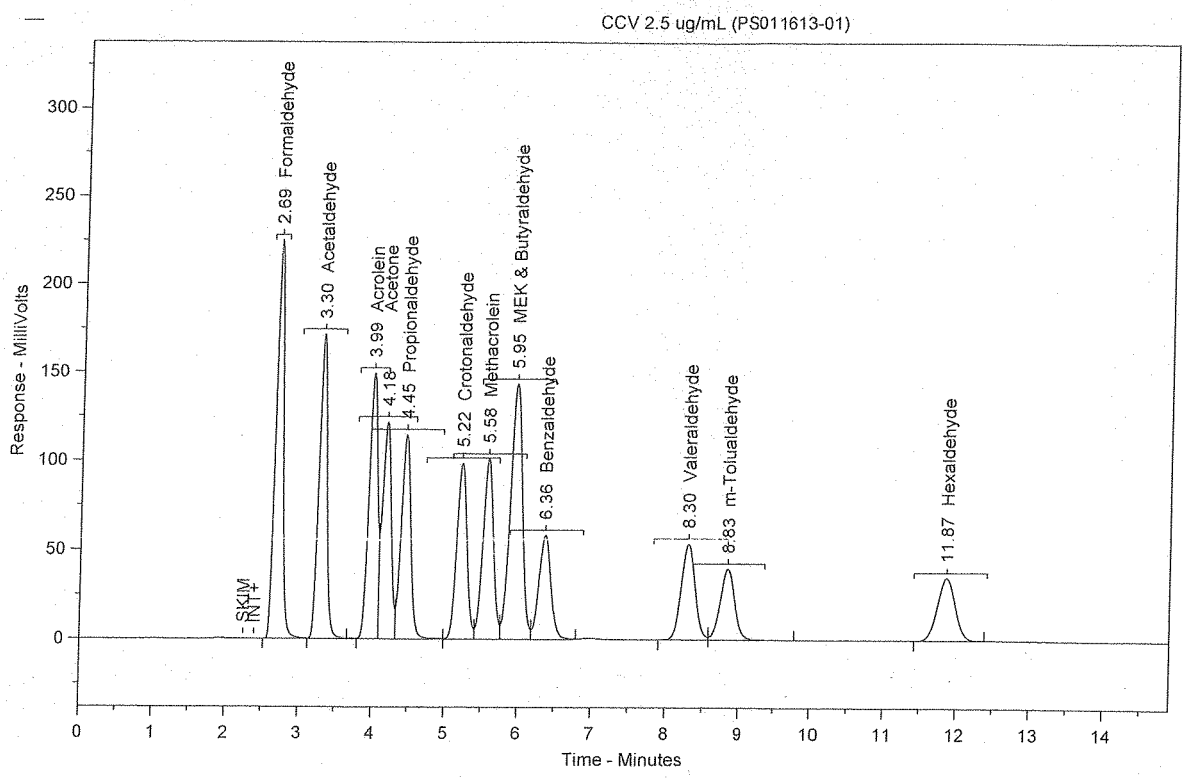
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

Run Time = 14.89889 Vial Number = 12
Injection Volume = 10 Dilution Factor = 1

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

Total Area = 0 Total Height = 0 Total Amount = 0



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0013.RAW**
Date Taken (end) = 7/16/2013 9:10:25 PM

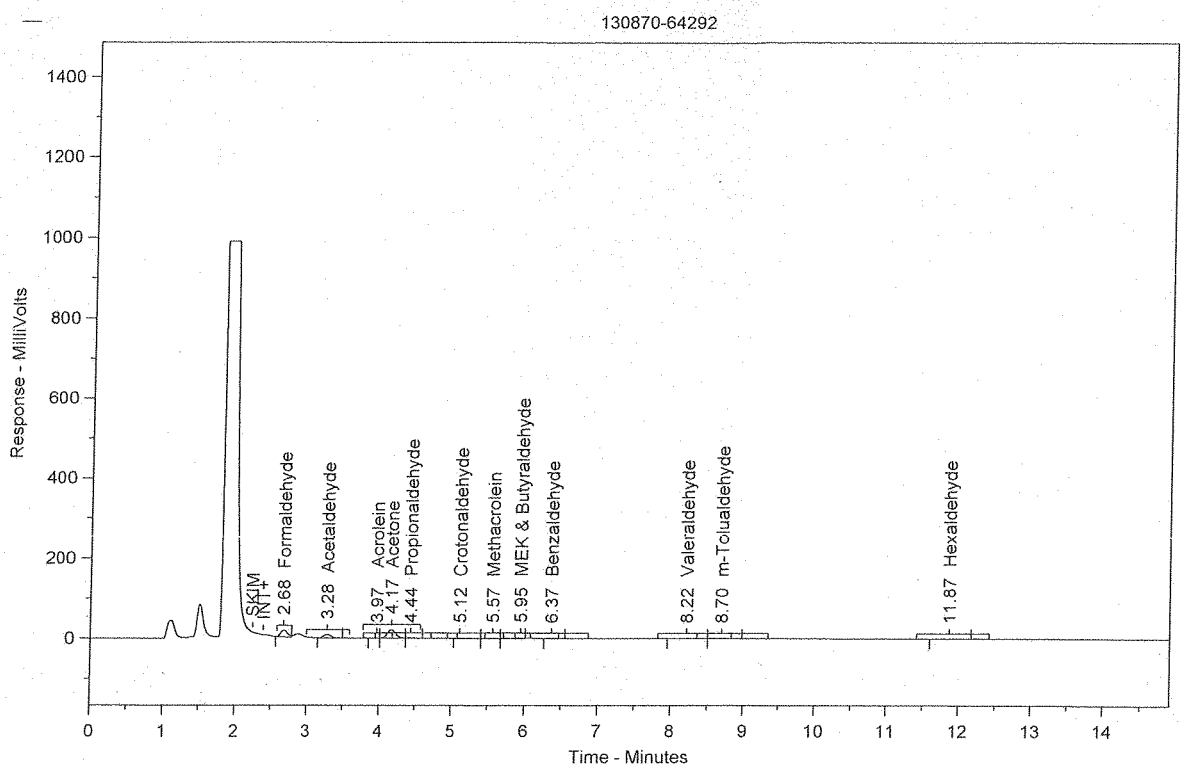
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.5057	7.670	1612353	13.037	SBB	0.11
2	3.30	Acetaldehyde	2.5112	7.687	1326957	10.730	TBV	0.12
3	3.99	Acrolein	2.5394	7.773	1216721	9.838	TVV	0.14
4	4.18	Acetone	2.5005	7.654	1041253	8.419	TVV	0.13
5	4.45	Propionaldehyde	2.5161	7.701	1040379	8.412	TVV	0.14
6	5.22	Crotonaldehyde	2.5201	7.714	958046	7.747	TVV	0.15
7	5.58	Methacrolein	2.5305	7.746	1017522	8.228	TVV	0.15
8	5.95	MEK & Butyraldehyde	5.0270	15.387	1627362	13.159	TVV	0.17
9	6.36	Benzaldehyde	2.5170	7.704	665836	5.384	TVB	0.17
10	8.30	Valeraldehyde	2.5142	7.696	701903	5.676	BV	0.20
11	8.83	m-Tolualdehyde	2.4952	7.638	563104	4.553	VB	0.22
12	11.87	Hexaldehyde	2.4934	7.632	595738	4.817	BB	0.27

Total Area = 1.236718E+07 Total Height = 1312923 Total Amount = 32.67041



Sample Name = **130870-64292** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0014.RAW**
Date Taken (end) = 7/16/2013 9:27:00 PM

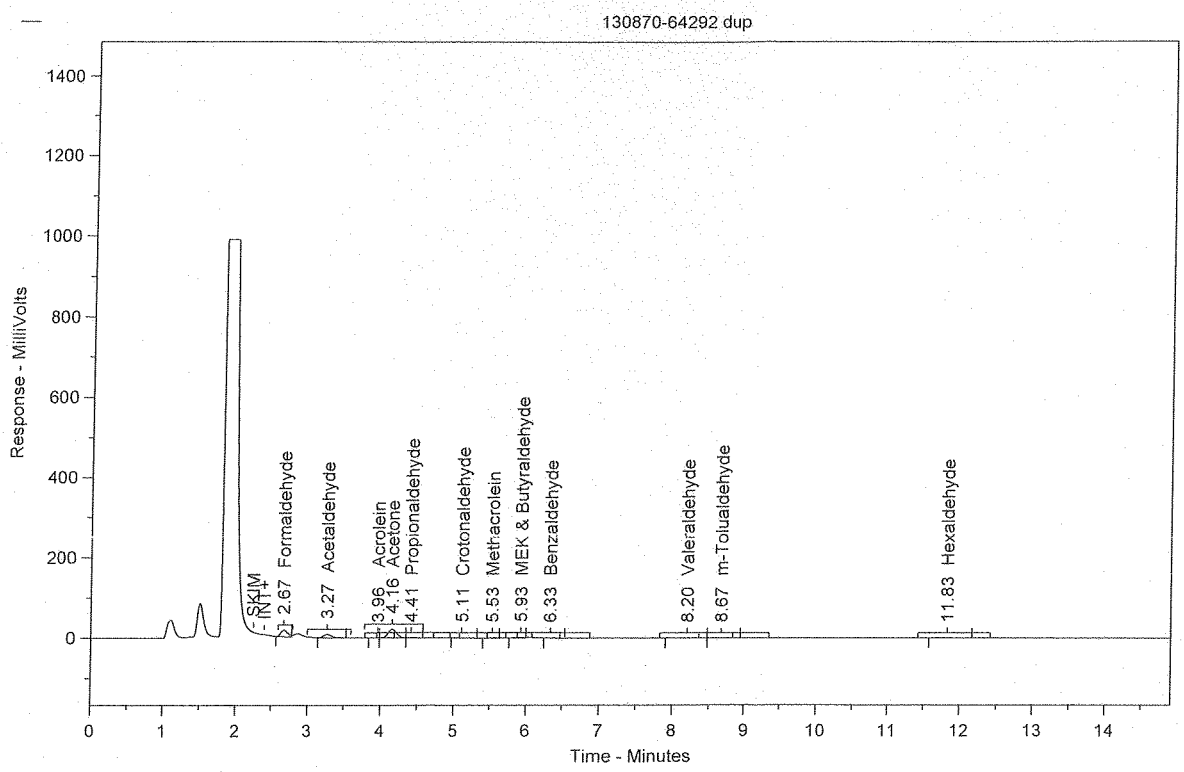
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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

Run Time = 14.89889 Vial Number = 14
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.1688	17.779	108601	25.809	BB	0.10
2	3.28	Acetaldehyde	0.1164	12.259	61489	14.613	BB	0.12
3	3.97	Acrolein	0.0028	0.297	1350	0.321	BV	0.09
4	4.17	Acetone	0.4308	45.381	179388	42.631	VV	0.13
5	4.44	Propionaldehyde	0.0237	2.501	9816	2.333	VB	0.13
6	5.12	Crotonaldehyde	0.0227	2.396	8645	2.055	BB	0.19
7	5.57	Methacrolein	0.0070	0.734	2803	0.666	BV	0.19
8	5.95	MEK & Butyraldehyde	0.0556	5.860	18007	4.279	VB	0.16
9	6.37	Benzaldehyde	0.0206	2.169	5446	1.294	BB	0.19
10	8.22	Valeraldehyde	0.0399	4.203	11139	2.647	BV	0.27
11	8.70	m-Tolualdehyde	0.0343	3.611	7735	1.838	VB	0.26
12	11.87	Hexaldehyde	0.0267	2.810	6374	1.515	BB	0.30

Total Area = 420794.8 Total Height = 51985.6 Total Amount = 0.9492676



Sample Name = **130870-64292 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0015.RAW**
Date Taken (end) = 7/16/2013 9:43:36 PM

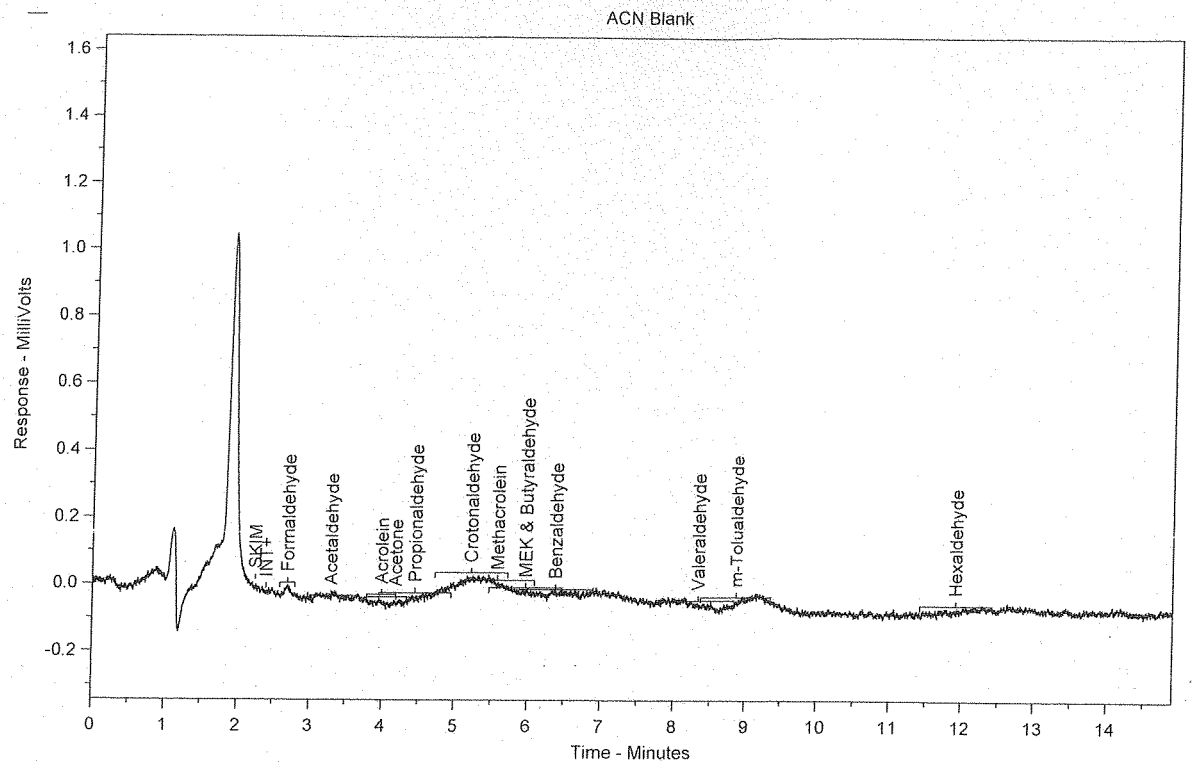
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 15
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.1687	17.770	108560	25.769	BB	0.10
2	3.27	Acetaldehyde	0.1182	12.447	62445	14.823	BB	0.12
3	3.96	Acrolein	0.0024	0.249	1133	0.269	BV	0.09
4	4.16	Acetone	0.4314	45.434	179622	42.637	VV	0.13
5	4.41	Propionaldehyde	0.0240	2.523	9905	2.351	VB	0.14
6	5.11	Crotonaldehyde	0.0231	2.437	8796	2.088	BB	0.24
7	5.53	Methacrolein	0.0061	0.641	2447	0.581	BB	0.16
8	5.93	MEK & Butyraldehyde	0.0565	5.952	18294	4.342	BB	0.16
9	6.33	Benzaldehyde	0.0213	2.242	5630	1.336	BB	0.18
10	8.20	Valeraldehyde	0.0381	4.009	10625	2.522	BV	0.27
11	8.67	m-Tolualdehyde	0.0342	3.605	7723	1.833	VB	0.24
12	11.83	Hexaldehyde	0.0256	2.692	6106	1.449	BB	0.30

Total Area = 421285.2 Total Height = 52068.1 Total Amount = 0.9494089



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0022.RAW**
Date Taken (end) = 7/16/2013 11:39:47 PM

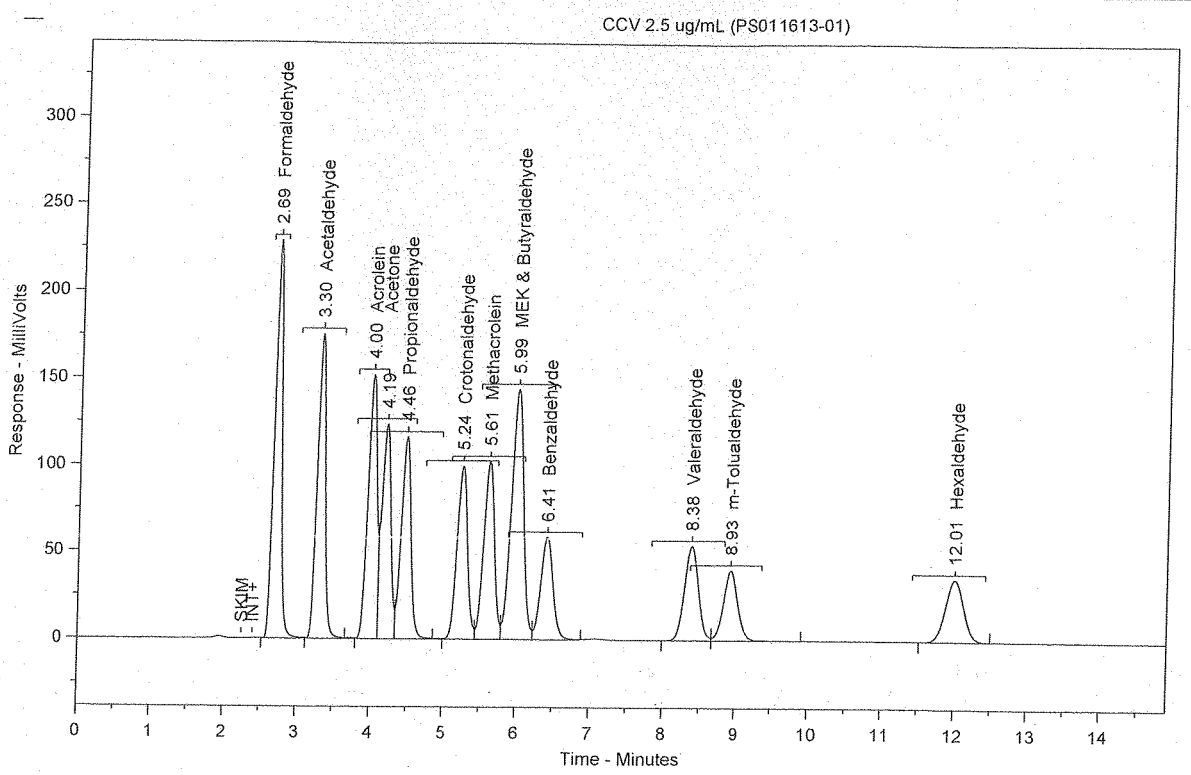
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 22
Injection Volume = 10 Dilution Factor = 1

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

Total Area = 0 Total Height = 0 Total Amount = 0



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0023.RAW**
Date Taken (end) = 7/16/2013 11:56:22 PM

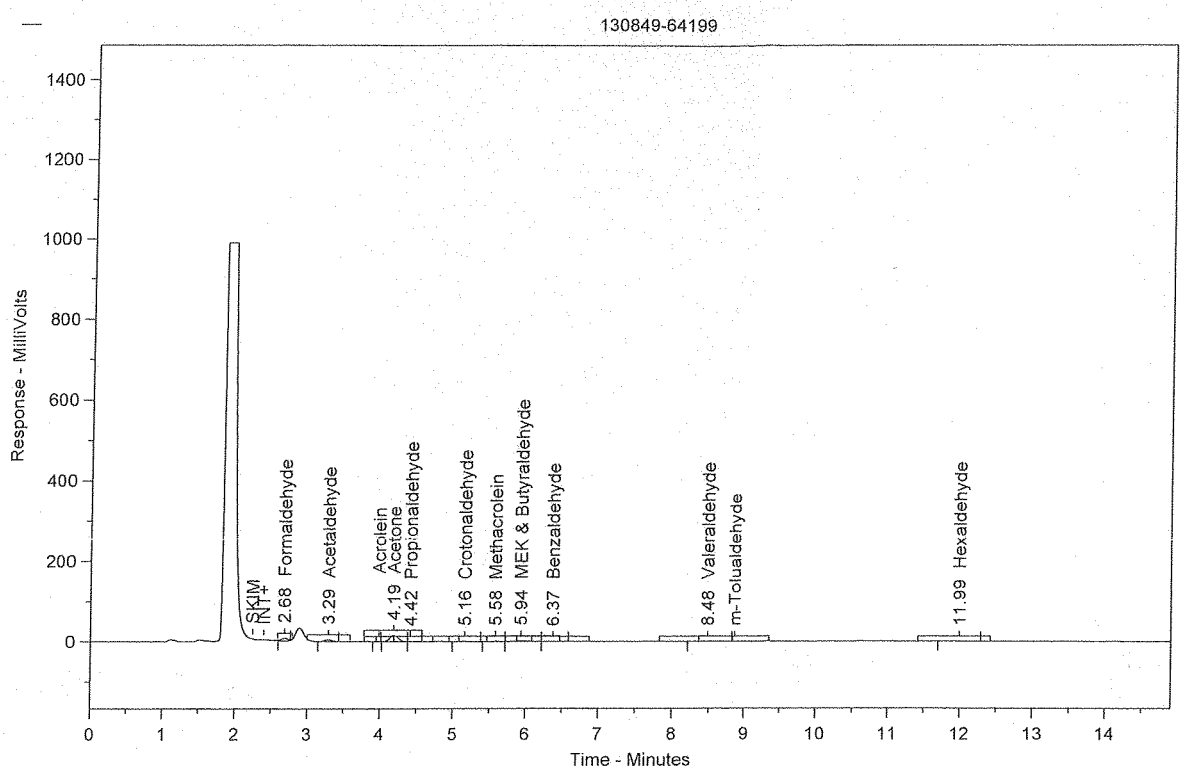
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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
1	2.69	Formaldehyde	2.5532	7.636	1642897	12.979	SBB	0.11
2	3.30	Acetaldehyde	2.5809	7.719	1363757	10.774	TBV	0.12
3	4.00	Acrolein	2.6138	7.817	1252334	9.893	TVV	0.14
4	4.19	Acetone	2.5624	7.664	1067038	8.430	TVV	0.13
5	4.46	Propionaldehyde	2.5614	7.660	1059109	8.367	TVV	0.14
6	5.24	Crotonaldehyde	2.5847	7.730	982596	7.762	TVV	0.15
7	5.61	Methacrolein	2.5924	7.753	1042400	8.235	TVV	0.15
8	5.99	MEK & Butyraldehyde	5.1462	15.391	1665942	13.161	TVV	0.18
9	6.41	Benzaldehyde	2.5635	7.667	678134	5.357	TVB	0.18
10	8.38	Valeraldehyde	2.5670	7.677	716642	5.661	BV	0.20
11	8.93	m-Tolualdehyde	2.5483	7.621	575072	4.543	VB	0.22
12	12.01	Hexaldehyde	2.5631	7.665	612385	4.838	BB	0.27

Total Area = 1.265831E+07 Total Height = 1332930 Total Amount = 33.43668



Sample Name = **130849-64199** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0024.RAW**
Date Taken (end) = 7/17/2013 12:12:58 AM

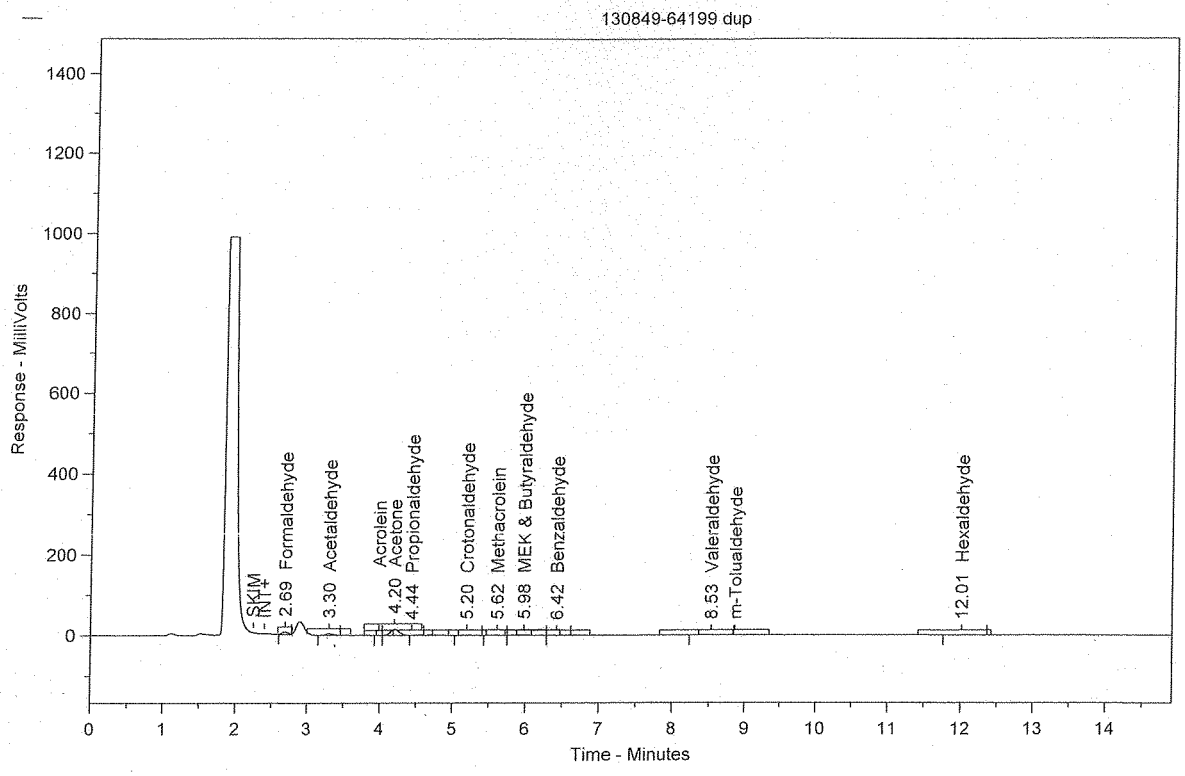
Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0024.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0024.BND
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	2.68	Formaldehyde	0.0613	10.223	39415	15.495	BB	0.09
2	3.29	Acetaldehyde	0.0589	9.829	31120	12.234	BB	0.11
4	4.19	Acetone	0.3079	51.379	128200	50.396	BV	0.13
5	4.42	Propionaldehyde	0.0147	2.452	6074	2.388	VB	0.12
6	5.16	Crotonaldehyde	0.0187	3.125	7118	2.798	BB	0.18
7	5.58	Methacrolein	0.0132	2.207	5316	2.090	BV	0.16
8	5.94	MEK & Butyraldehyde	0.0676	11.282	21885	8.603	VV	0.17
9	6.37	Benzaldehyde	0.0065	1.079	1710	0.672	VB	0.18
10	8.48	Valeraldehyde	0.0368	6.135	10262	4.034	BB	0.28
11	11.99	Hexaldehyde	0.0137	2.292	3282	1.290	BB	0.29

Total Area = 254382.8 Total Height = 30860.65 Total Amount = 0.5992095



Sample Name = **130849-64199 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0025.RAW**
Date Taken (end) = 7/17/2013 12:29:32 AM

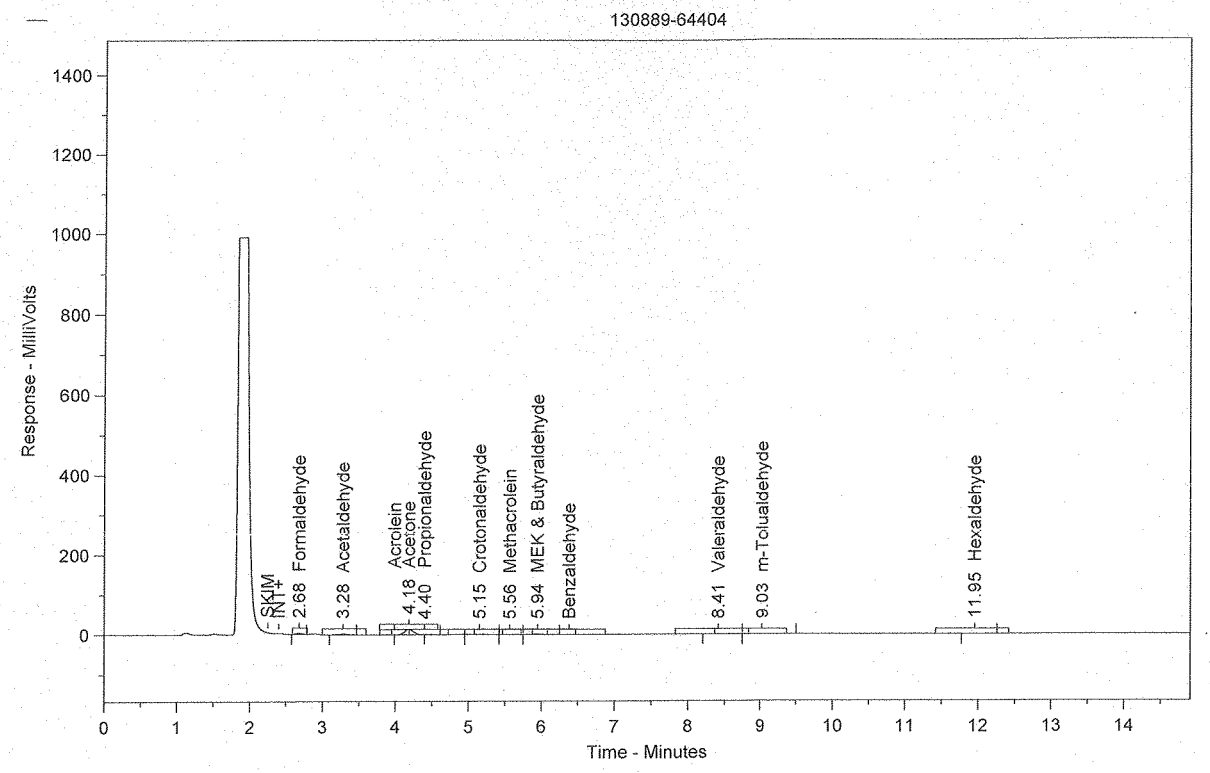
Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0025.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0025.BND
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0622	10.394	40026	15.750	BB	0.09
2	3.30	Acetaldehyde	0.0593	9.907	31327	12.327	BB	0.11
4	4.20	Acetone	0.3053	51.013	127122	50.021	SBB	0.13
5	4.44	Propionaldehyde	0.0142	2.381	5892	2.319	TBB	0.11
6	5.20	Crotonaldehyde	0.0174	2.902	6602	2.598	BB	0.17
7	5.62	Methacrolein	0.0130	2.171	5224	2.056	BV	0.16
8	5.98	MEK & Butyraldehyde	0.0704	11.769	22800	8.972	VV	0.18
9	6.42	Benzaldehyde	0.0063	1.061	1679	0.661	VB	0.20
10	8.53	Valeraldehyde	0.0361	6.030	10074	3.964	BB	0.27
11	12.01	Hexaldehyde	0.0142	2.372	3391	1.334	BB	0.30

Total Area = 254138 Total Height = 30559.1 Total Amount = 0.5984303



Sample Name = **130889-64404** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0029.RAW**
Date Taken (end) = 7/17/2013 1:35:54 AM

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

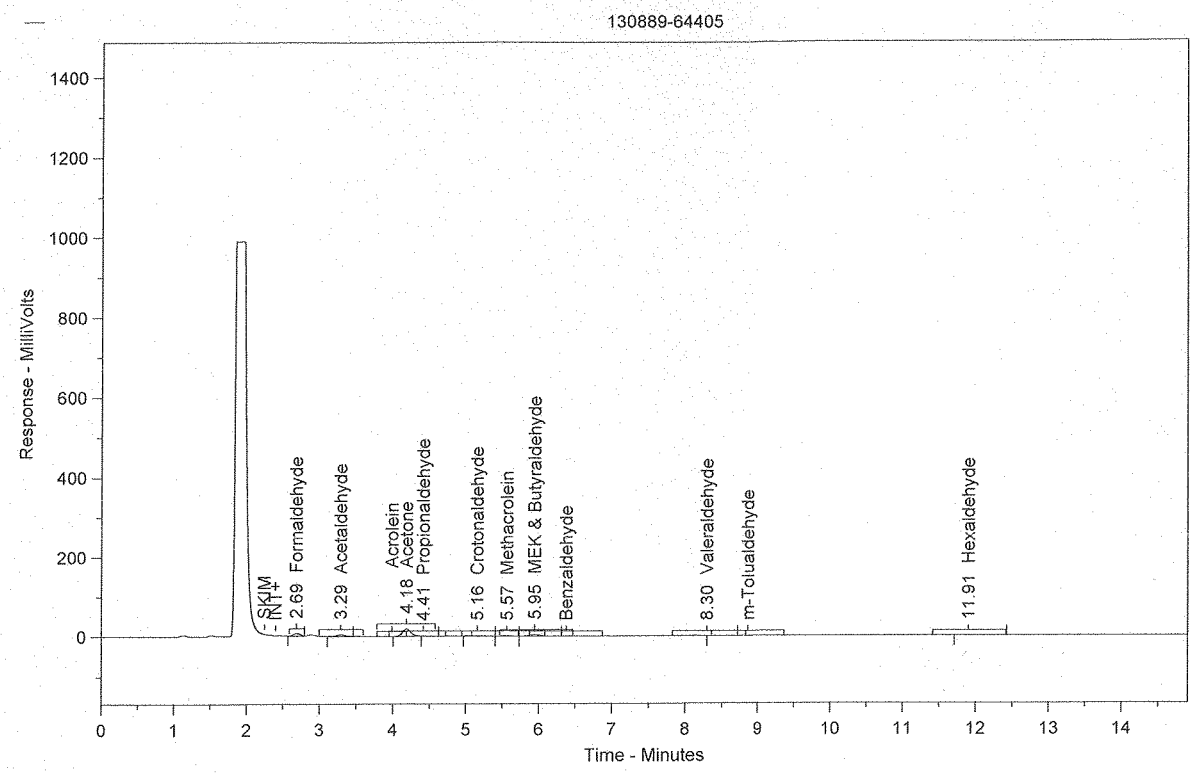
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0278	5.963	17903	9.262	BB	0.10
2	3.28	Acetaldehyde	0.0301	6.457	15920	8.236	BB	0.12
3	4.18	Acetone	0.2734	58.603	113857	58.904	SBB	0.13
4	4.40	Propionaldehyde	0.0112	2.397	4623	2.392	TBB	0.10
5	5.15	Crotonaldehyde	0.0397	8.504	15084	7.804	BV	0.20
6	5.56	Methacrolein	0.0143	3.069	5758	2.979	VB	0.22
7	5.94	MEK & Butyraldehyde	0.0370	7.921	11964	6.189	BB	0.18
8	8.41	Valeraldehyde	0.0119	2.558	3332	1.724	BV	0.30
9	9.03	m-Tolualdehyde	0.0147	3.153	3319	1.717	VB	0.38
10	11.95	Hexaldehyde	0.0064	1.375	1533	0.793	BB	0.29

Total Area = 193294.3 Total Height = 21590.04 Total Amount = 0.4665685

HP
07/17/13



Sample Name = **130889-64405** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0030.RAW**
Date Taken (end) = 7/17/2013 1:52:31 AM

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

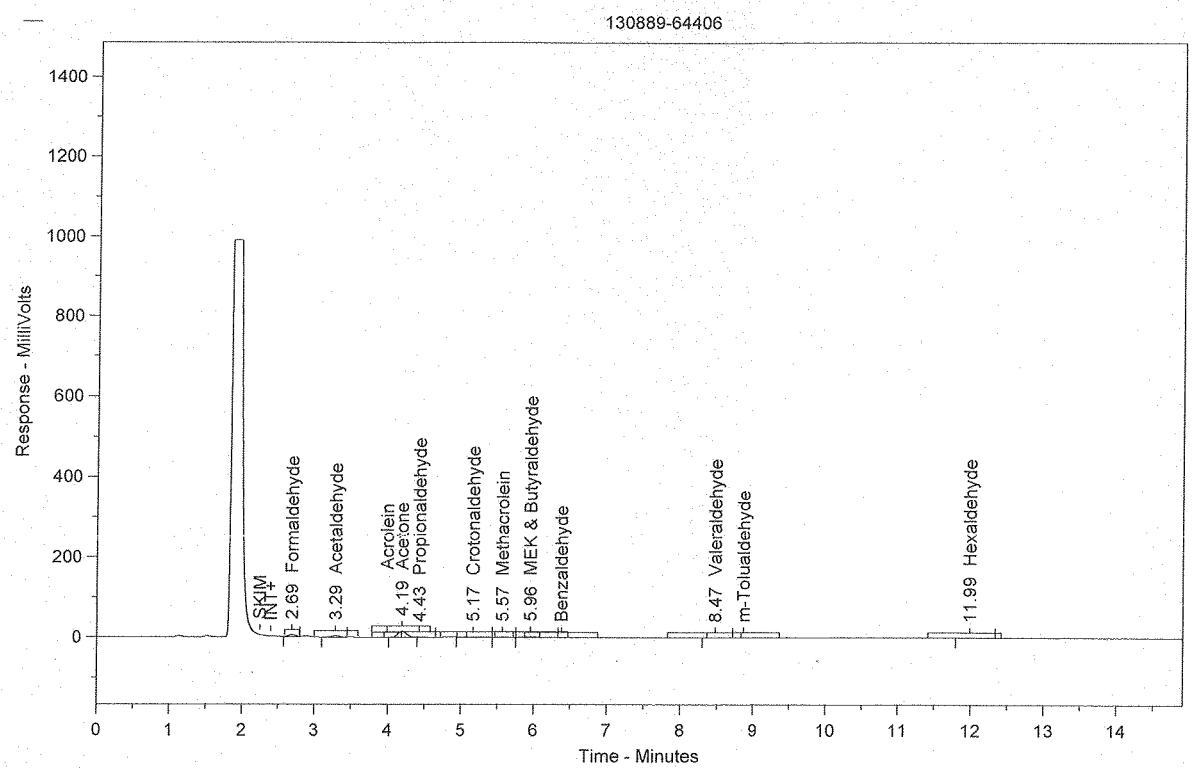
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 30
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0671	9.353	43174	14.175	BB	0.10
2	3.29	Acetaldehyde	0.0658	9.169	34754	11.411	BB	0.12
3	4.18	Acetone	0.3682	51.327	153324	50.341	SBB	0.13
4	4.41	Propionaldehyde	0.0164	2.284	6775	2.224	TBB	0.12
5	5.16	Crotonaldehyde	0.0315	4.391	11974	3.931	BV	0.23
6	5.57	Methacrolein	0.0242	3.373	9730	3.195	VV	0.15
7	5.95	MEK & Butyraldehyde	0.1149	16.018	37198	12.213	VB	0.16
8	8.30	Valeraldehyde	0.0158	2.209	4423	1.452	BB	0.21
9	11.91	Hexaldehyde	0.0135	1.877	3216	1.056	BB	0.32

Total Area = 304567.9 Total Height = 35727.47 Total Amount = 0.717356

MP
07/17/13



Sample Name = **130889-64406** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0031.RAW**
Date Taken (end) = 7/17/2013 2:09:06 AM

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

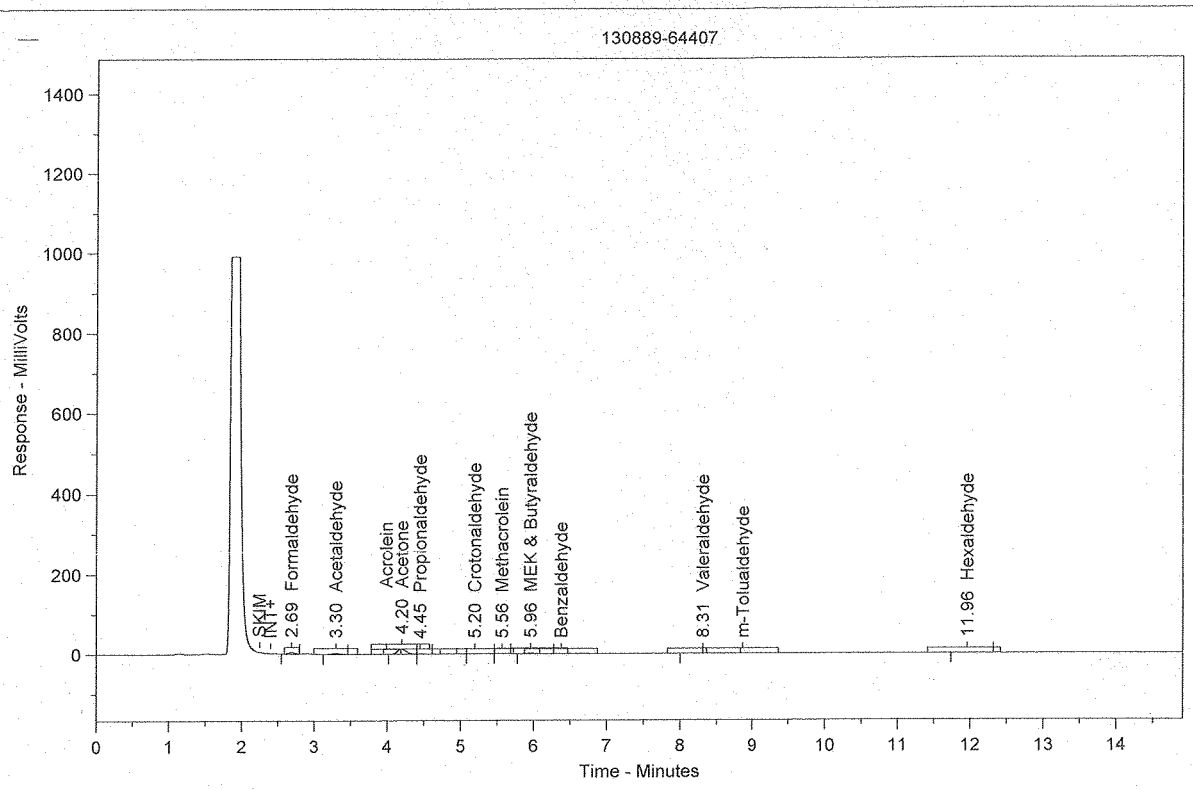
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 31
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.0486	8.342	31302	12.645	BB	0.10
2	3.29	Acetaldehyde	0.0543	9.304	28669	11.582	BB	0.12
3	4.19	Acetone	0.3004	51.509	125071	50.527	SBB	0.13
4	4.43	Propionaldehyde	0.0153	2.617	6310	2.549	TBB	0.12
5	5.17	Crotonaldehyde	0.0421	7.228	16022	6.473	BV	0.24
6	5.57	Methacrolein	0.0254	4.355	10212	4.126	VV	0.17
7	5.96	MEK & Butyraldehyde	0.0724	12.413	23432	9.466	VB	0.17
8	8.47	Valeraldehyde	0.0155	2.650	4315	1.743	BB	0.30
9	11.99	Hexaldehyde	0.0092	1.580	2202	0.890	BB	0.30

Total Area = 247534.5 Total Height = 27800.24 Total Amount = 0.5831077

MP
07/17/13



Sample Name = **130889-64407** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0032.RAW**
Date Taken (end) = 7/17/2013 2:25:42 AM

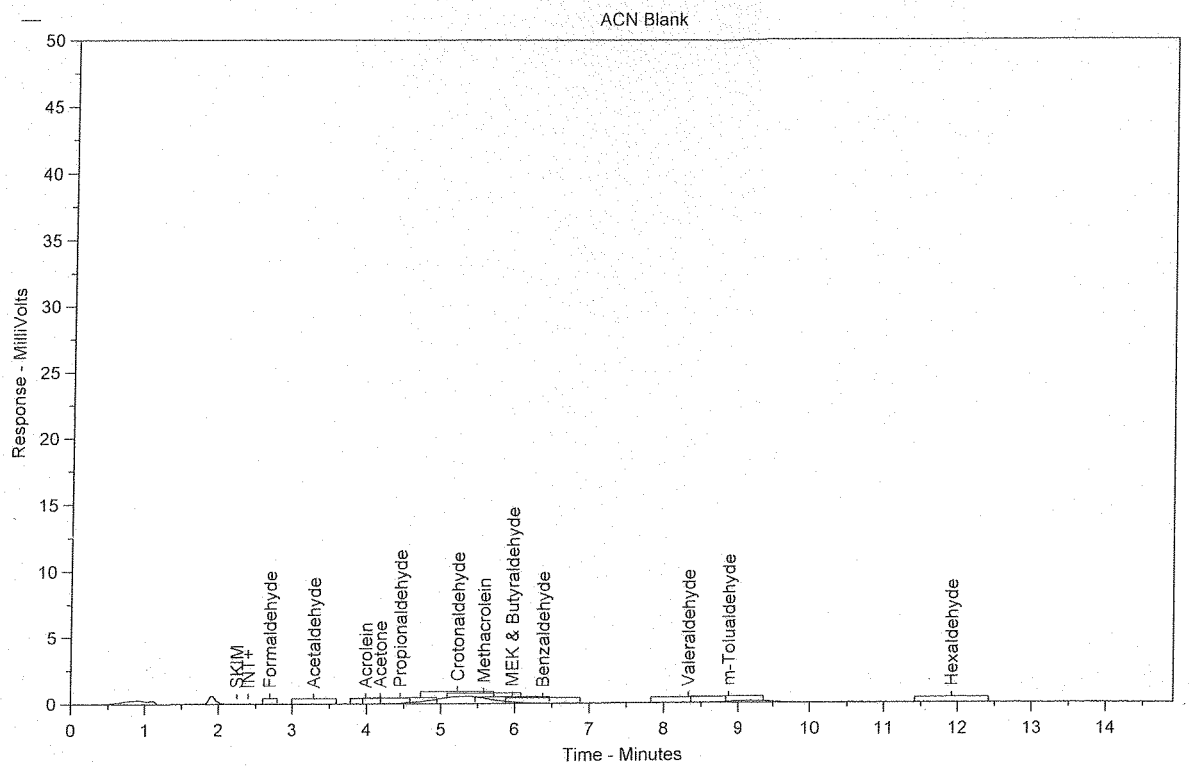
Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0032.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0032.BND
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	2.69	Formaldehyde	0.0348	7.880	22394	11.958	BB	0.10
2	3.30	Acetaldehyde	0.0359	8.119	18947	10.117	BB	0.12
3	4.20	Acetone	0.2613	59.165	108805	58.099	BV	0.13
4	4.45	Propionaldehyde	0.0118	2.669	4873	2.602	VB	0.11
5	5.20	Crotonaldehyde	0.0166	3.749	6295	3.361	BV	0.24
6	5.56	Methacrolein	0.0084	1.904	3381	1.805	VB	0.18
7	5.96	MEK & Butyraldehyde	0.0583	13.211	18887	10.085	BB	0.18
8	8.31	Valeraldehyde	0.0052	1.175	1449	0.773	BB	0.19
9	11.96	Hexaldehyde	0.0094	2.127	2244	1.198	BB	0.29

Total Area = 187274.6 Total Height = 21952.03 Total Amount = 0.4416242



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0033.RAW**
Date Taken (end) = 7/17/2013 2:42:16 AM

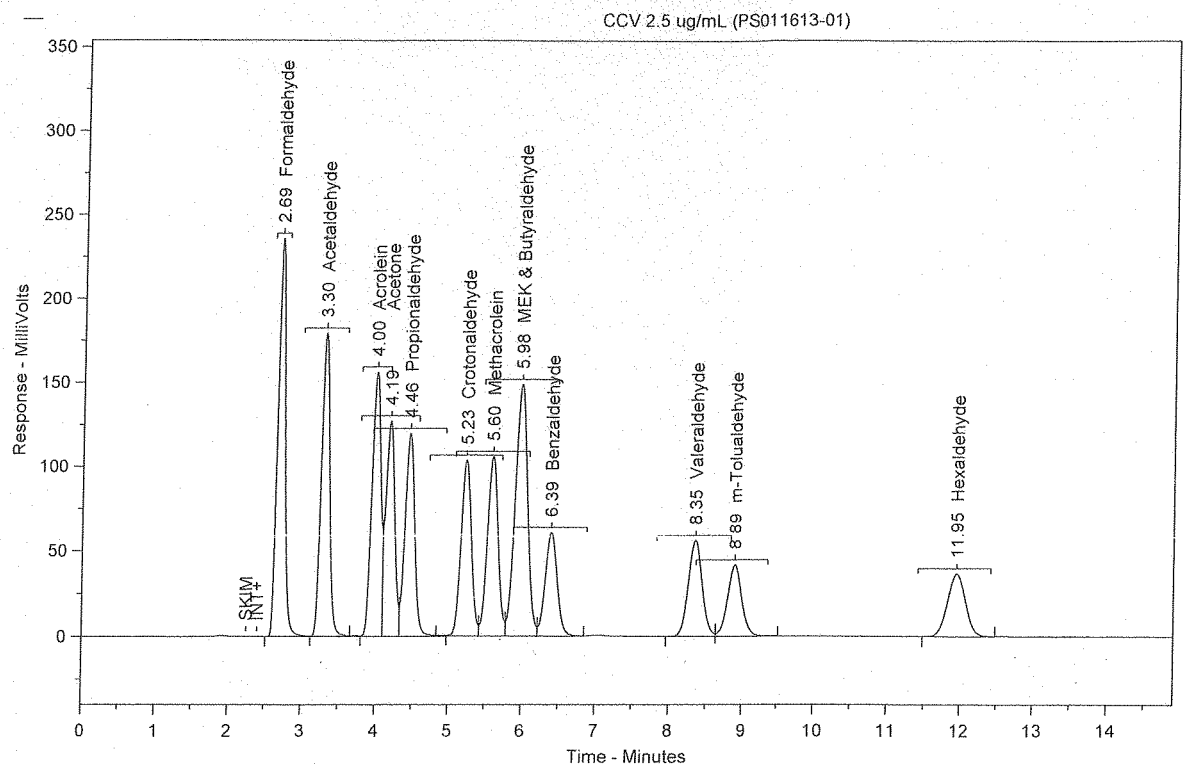
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

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 = 33
Injection Volume = 10 Dilution Factor = 1

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

Total Area = 0 Total Height = 0 Total Amount = 0



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\071713TO-11\071713.0034.RAW**
Date Taken (end) = 7/17/2013 2:58:51 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 = 34
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.6464	7.704	1702855	13.085	SBB	0.11
2	3.30	Acetaldehyde	2.6401	7.686	1395036	10.720	TBV	0.12
3	4.00	Acrolein	2.6798	7.801	1283964	9.867	TVV	0.14
4	4.19	Acetone	2.6269	7.648	1093893	8.406	TVV	0.13
5	4.46	Propionaldehyde	2.6352	7.672	1089616	8.373	TVV	0.14
6	5.23	Crotonaldehyde	2.6849	7.816	1020707	7.844	TVV	0.15
7	5.60	Methacrolein	2.6778	7.796	1076770	8.274	TVV	0.15
8	5.98	MEK & Butyraldehyde	5.2782	15.366	1708672	13.130	TVV	0.17
9	6.39	Benzaldehyde	2.5983	7.564	687329	5.282	TVB	0.17
10	8.35	Valeraldehyde	2.6316	7.661	734673	5.646	BV	0.20
11	8.89	m-Tolualdehyde	2.6172	7.619	590616	4.539	VB	0.22
12	11.95	Hexaldehyde	2.6336	7.667	629228	4.835	BB	0.27

Total Area = 1.301336E+07 Total Height = 1372815 Total Amount = 34.34978

File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\071713 (TO-11).SEQ
File Date = 7/16/2013 8:31:29 AM
Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	071713.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	071713.0002.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS061113-01)	2	1
3	071713.0003.raw	061113 TO-11A.MET	SS 1.25 ppm (PS011613-01)	3	1
4	071713.0004.raw	061113 TO-11A.MET	TO-11 Method Blank	4	1
5	071713.0005.raw	061113 TO-11A.MET	LCS Blank	5	1
6	071713.0006.raw	061113 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	6	1
7	071713.0007.raw	061113 TO-11A.MET	MS 130870-64299 1.25 ppm [(PS061113-01x2]	7	1
8	071713.0008.raw	061113 TO-11A.MET	MSD 130870-64299 1.25 ppm [(PS061113-01x2]	8	1
9	071713.0009.raw	061113 TO-11A.MET	130870-64299	9	1
10	071713.0010.raw	061113 TO-11A.MET	130870-64299 dup	10	1
11	071713.0011.raw	061113 TO-11A.MET	130870-64291	11	1
12	071713.0012.raw	061113 TO-11A.MET	ACN Blank	12	1
13	071713.0013.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	071713.0014.raw	061113 TO-11A.MET	130870-64292	14	1
15	071713.0015.raw	061113 TO-11A.MET	130870-64292 dup	15	1
16	071713.0016.raw	061113 TO-11A.MET	130870-64293	16	1
17	071713.0017.raw	061113 TO-11A.MET	130870-64294	17	1
18	071713.0018.raw	061113 TO-11A.MET	130870-64295	18	1
19	071713.0019.raw	061113 TO-11A.MET	130870-64296	19	1
20	071713.0020.raw	061113 TO-11A.MET	130870-64297	20	1
21	071713.0021.raw	061113 TO-11A.MET	130870-64298	21	1
22	071713.0022.raw	061113 TO-11A.MET	ACN Blank	22	1
23	071713.0023.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	23	1
24	071713.0024.raw	061113 TO-11A.MET	130849-64199	24	1
25	071713.0025.raw	061113 TO-11A.MET	130849-64199 dup	25	1
26	071713.0026.raw	061113 TO-11A.MET	130849-64200	26	1
27	071713.0027.raw	061113 TO-11A.MET	130849-64201	27	1
28	071713.0028.raw	061113 TO-11A.MET	130849-64202	28	1
29	071713.0029.raw	061113 TO-11A.MET	130889-64404	29	1
30	071713.0030.raw	061113 TO-11A.MET	130889-64405	30	1
31	071713.0031.raw	061113 TO-11A.MET	130889-64406	31	1
32	071713.0032.raw	061113 TO-11A.MET	130889-64407	32	1
33	071713.0033.raw	061113 TO-11A.MET	ACN Blank	33	1
34	071713.0034.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	34	1