Atmospheric Analysis & Consulting, Inc.

Client	: SWAPE
Client Project Name	: Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No.	: NA
AAC Project No.	: 130456
Reporting Date	: 04/22/2013

On April 17 and 18, 2013, Atmospheric Analysis & Consulting, Inc. received five (5) DNPH impregnated silica gel cartridges for Carbonyls analysis by EPA Method TO-11A. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client ID	AAC Sample ID
BZ-1-DNPH	130456-62448
F-1-DNPH	130456-62457
F-2-DNPH	130456-62466
F-3-DNPH	130456-62475
Blank DNPH	130456-62486

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.

All samples were blank corrected using the Trip Blank value for all the analytes. The Trip Blank value was calculated using a sample volume of 1.0Liter.

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

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

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

Marcus Hueppe
Laboratory Director

This report consists of 56 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

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

FAC# 130456

Amended*

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: 4/17/13 Page 1 of 4

Project Manager: PAUL ROSENFELD, PH.D.

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

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By:

Sampler Signature:

REQUESTED TESTS / ANALYSES

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	Special Instructions / Conditions of Receipt
62447	BZ-1 – Canister		4/16/13	15:48	X	X								X				1 SUMMA
62448	– DNPH			15:56			X											1 TUBE
62449	– Acid			16:01				X										1 TUBE
62450	– HCL			16:02					X									1 TUBE
62451	– Ammonia			15:55						X								1 TUBE
62452	– SO2			16:00							X							1 TUBE
62453	– HCN			16:03								X						1 TUBE
62454	– Amines			15:54									X					1 TUBE
62455	– Mercury		↓	15:58												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

*Relinquished By:	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 1940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

AMENDED *

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE

Project Manager: PAUL ROSENFELD, PH.D.

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

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: | Sampler Signature:

Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011

Date: 4/17/13 | Page 2 of 4

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 601D	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62456	F-1 - Canister		4/16/13	13:12	X	X								X				1 SUMMA
62457	- DNPH			13:36			X											1 TUBE
62458	- Acids			13:30				X										1 TUBE
62459	- HCL			13:34					X									1 TUBE
62460	- Ammonia			13:28						X								1 TUBE
62461	- SO2			13:39							X							1 TUBE
62462	- HCN			13:22								X						1 TUBE
62463	- Amines			13:17									X					1 TUBE
62464	- Mercury		4	13:24												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By: *	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

AMENDED

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: 4/17/13 Page 3 of 4

Project Manager: PAUL ROSENFELD, PH.D.

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

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By:

Sampler Signature:

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62465	F-2 - Canister		4/16/13	14:12	X	X								X				1 SUMMA
62466	- DNPH			14:23			X											1 TUBE
62467	- Acids			14:19				X										1 TUBE
62468	- HCL			14:39					X									1 TUBE
62469	- Ammonia			14:45						X								1 TUBE
62470	- SO2			14:31							X							1 TUBE
62471	- HCN			14:34								X						1 TUBE
62472	- Amines			14:50									X					1 TUBE
62473	- Mercury		"	14:43												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By:	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

AMENDED*

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE	Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011
Project Manager: PAUL ROSENFELD, PH.D.	Date: 4/17/13 Page 4 of 4
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401	
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT	
Sampled By:	Sampler Signature:

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCs - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62474	F-3 - Canister		4/16/13	15:30	X	X								X				1 SUMMA
62475	- DNPH			15:20			X											1 TUBE
62476	- Acids			15:14				X										1 TUBE
62477	- HCL			15:10					X									1 TUBE
62478	- Ammonia			15:22						X								1 TUBE
62479	- SO2			15:26							X							1 TUBE
62480	- HCN			15:06								X						1 TUBE
62481	- Amines			15:29									X					1 TUBE
62482	- Mercury			15:18												X		1 TUBE

REQUESTED TESTS / ANALYSES

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

Relinquished By:	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

AAC# 130456

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: 4/17/13 Page 1 of 1

Project Manager: PAUL ROSENFELD, PH.D.

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

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: | Sampler Signature:

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	Special Instructions / Conditions of Receipt
62486	ALDEHYDES		4/17/13				X											
62487	AMINES												X					
62488	AMMONIA									X								
62489	CARBOXYLIC ACIDS							X										
62490	HYDROGEN CHLORIDE								X									
62491	HYDROGEN CYANIDE											X						
62492	MERCURY															X		
62493	SULFUR DIOXIDE		"								X							

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: 4/17/13	Time: 4 PM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/18/13	Time: 1235

- FEDEX

SOIL / WATER / AIR PROTECTION ENTERPRISE

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. : 130456
Analyst : HP/EG
Units : ppbv

Sampling Date (s) : 04/16/2013
Receiving Date : 04/17/2013
Analysis Date : 04/19/2013
Reporting Date : 04/22/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
BZ-1-DNPH	130456-62448	0.502	0.864	<SRL	0.225	0.200	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL
SRL		0.298	0.203	0.160	0.154	0.154	0.128	0.128	0.124	0.084	0.104	0.074	0.089
F-1-DNPH	130456-62457	<SRL	2220	<SRL	88000	1100	<SRL	4070	27000	<SRL	<SRL	<SRL	28.4
SRL		65.0	44.3	34.8	336	33.6	27.8	27.8	271	18.4	22.6	16.2	19.5
F-2-DNPH	130456-62466	<SRL	106	<SRL	67700	<SRL	<SRL	5890	35800	<SRL	<SRL	<SRL	<SRL
SRL		63.3	43.1	33.9	327	32.7	27.1	27.1	264	17.9	22.1	15.8	19.0
F-3-DNPH	130456-62475	330	<SRL	<SRL	36800	<SRL	<SRL	3590	22100	<SRL	<SRL	<SRL	50.5
SRL		60.5	41.2	32.4	313	31.3	25.9	25.9	252	17.1	21.1	15.1	18.1
Blank DNPH	130456-62486	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL
SRL		61.1	41.6	32.7	31.6	31.6	26.2	26.2	25.4	17.3	21.3	15.3	18.3

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)
The Blank DNPH data was calculated using a sample volume of 1.0 Liters
All sample values were blank corrected using the Trip Blank value for all analytes

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. : 130456
Analyst : HP/EG
Units : ug/m^3

Sampling Date (s) : 04/16/2013
Receiving Date : 04/17/2013
Analysis Date : 04/19/2013
Reporting Date : 04/22/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
BZ-1-DNPH	130456-62448	0.616	1.56	<SRL	0.534	0.476	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL
SRL		0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366
F-1-DNPH	130456-62457	<SRL	4000	<SRL	209000	2610	<SRL	11700	79700	<SRL	<SRL	<SRL	116
SRL		79.8	79.8	79.8	798	79.8	79.8	79.8	798	79.8	79.8	79.8	79.8
F-2-DNPH	130456-62466	<SRL	191	<SRL	161000	<SRL	<SRL	16900	106000	<SRL	<SRL	<SRL	<SRL
SRL		77.7	77.7	77.7	777	77.7	77.7	77.7	777	77.7	77.7	77.7	77.7
F-3-DNPH	130456-62475	405	<SRL	<SRL	87300	<SRL	<SRL	10300	65300	<SRL	<SRL	<SRL	207
SRL		74.3	74.3	74.3	743	74.3	74.3	74.3	743	74.3	74.3	74.3	74.3
Blank DNPH	130456-62486	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL	<SRL
SRL		75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)
The Blank DNPH data was calculated using a sample volume of 1.0 Liters
All sample values were blank corrected using the Trip Blank value for all analytes

Marcus Hueppe
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 01/16/2013 Calibration

Analysis Date : 04/19/2013
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	2.69	2.69	2.69	2.67	2.66	2.64	2.66	5.31	2.54	2.68	2.59	2.67
Accuracy (%)*	108	108	108	107	106	106	106	106	102	107	104	107

Continuing CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.70	2.72	2.74	2.72	2.71	2.70	2.72	5.42	2.67	2.73	2.69	2.73
Accuracy (%)*	108	109	110	109	108	108	109	108	107	109	108	109

Continuing CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.56	2.58	2.59	2.56	2.55	2.55	2.57	5.12	2.50	2.56	2.50	2.54
Accuracy (%)*	102	103	104	102	102	102	103	102	100	102	100	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	2.52	2.53	2.55	2.53	2.52	2.53	2.54	5.03	2.49	2.54	2.51	2.55
Accuracy (%)*	101	101	102	101	101	101	102	101	99.6	102	100	102

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	2.67	2.67	2.68	2.67	2.68	2.66	2.67	5.32	2.63	2.69	2.61	2.63
Accuracy (%)*	107	107	107	107	107	106	107	106	105	108	104	105

*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 : 04/19/2013 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)	0.394	0.395	0.411	0.404	0.413	0.398	0.431	0.740	0.354	0.411	0.388	0.407
Spike Recovery (%)*	104	104	108	107	109	105	114	97.7	93.4	109	103	108

*Must be 100 ± 15%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

Matrix Spike Analysis

Analysis Date : 04/19/2013 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	130456-62486											
Sample Concentration (ug/mL)	0.006	0.007	0.000	0.057	0.001	0.000	0.003	0.016	0.000	0.000	0.000	0.000
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)	1.38	1.39	1.40	1.46	1.38	1.37	1.39	2.79	1.33	1.41	1.36	1.41
Duplicate Spiked Sample Concentration (ug/mL)	1.29	1.29	1.29	1.35	1.28	1.27	1.28	2.57	1.22	1.29	1.25	1.27
Spike Recovery (%)*	110	111	112	112	110	110	111	111	106	113	109	113
Dulicate Spike Recovery (%)*	103	103	103	103	102	102	102	102	97.6	103	100	102
RPD**	6.7	7.5	8.2	7.8	7.5	7.6	8.2	8.2	8.6	8.9	8.4	10.4

*Must be 100± 25%

** Must be ≤ 25%

Marcus Hueppe
Laboratory Director

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

Analysis Date : 04/19/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Sample ID	130456-62486											
Sample Concentration (ug/mL)	<RL	<RL	ND	0.114	<RL	ND	<RL	0.033	ND	ND	ND	ND
Duplicate Sample Concentration (ug/mL)	<RL	<RL	ND	0.114	<RL	ND	<RL	0.034	ND	ND	ND	ND
RPD**	NA	NA	NA	0.5	NA	NA	NA	3.0	NA	NA	NA	NA
Sample ID	130456-62457											
Sample Concentration (ug/mL)	<RL	1.27	ND	ND	0.821	ND	3.66	25.0	ND	ND	ND	0.036
Duplicate Sample Concentration (ug/mL)	<RL	1.28	ND	ND	0.801	ND	3.67	25.0	ND	ND	ND	0.037
RPD**	NA	0.9	NA	NA	2.5	NA	0.1	0.0	NA	NA	NA	1.4
Sample ID	130456-62457x10											
Sample Concentration (ug/mL)	ND	1.25	ND	65.6	0.852	ND	3.67	25.0	ND	ND	ND	ND
Duplicate Sample Concentration (ug/mL)	ND	1.30	ND	69.5	0.835	ND	3.84	25.9	ND	ND	ND	ND
RPD**	NA	4.5	NA	5.8	2.0	NA	4.6	3.7	NA	NA	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 : 04/19/2013
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

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Calibration Summary

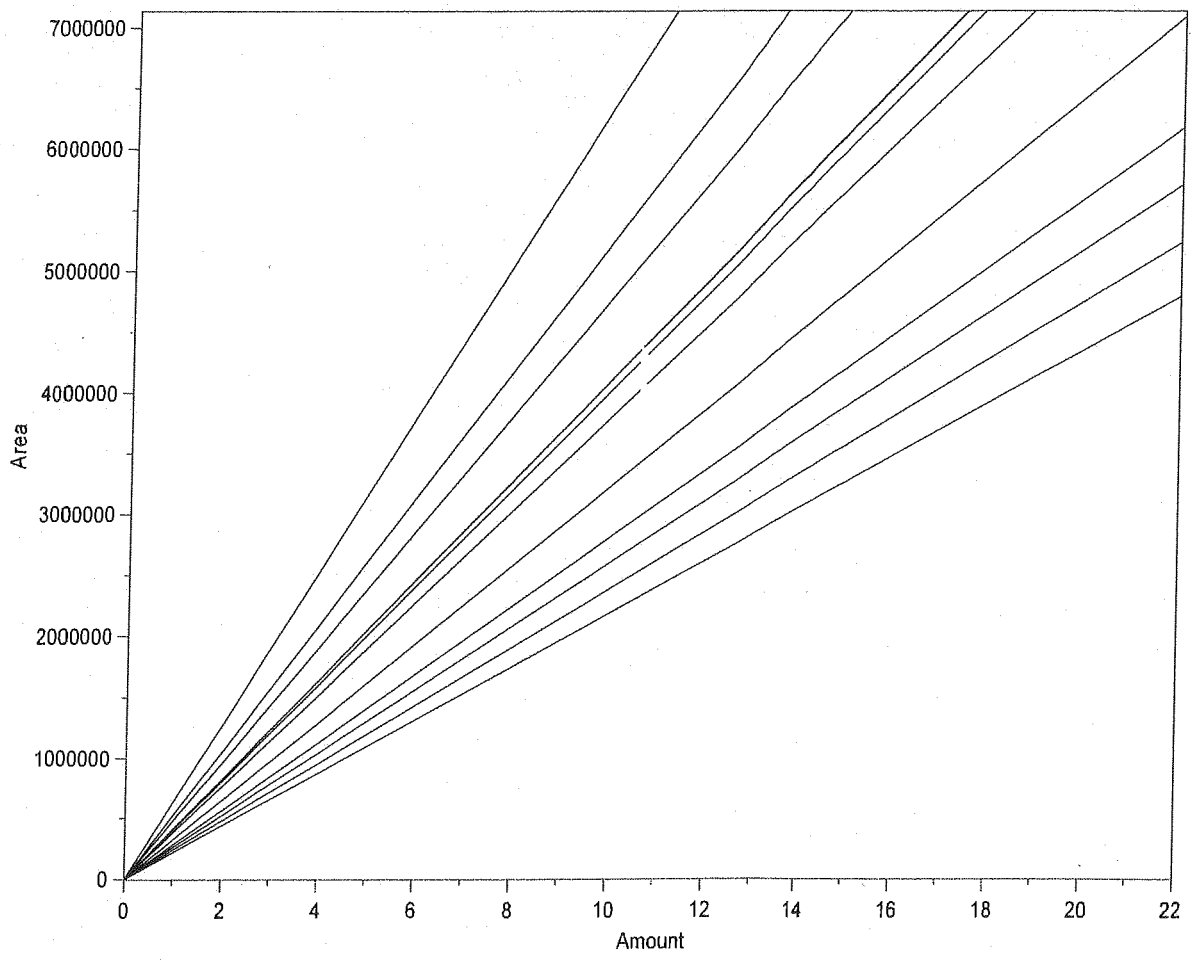
File Name: C:\CP Methods & Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Version: 13

Creator: EG/HP
Description: EPA TO-11

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

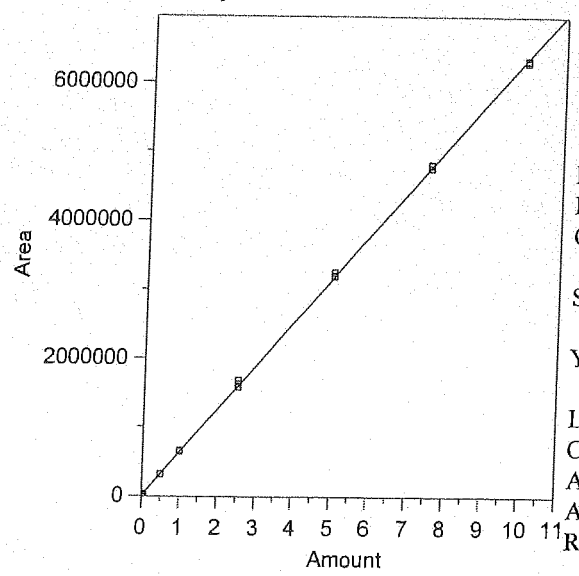
Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.



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

1 Formaldehyde



Expected retention time: 2.668 minutes
Search window: 0.1 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

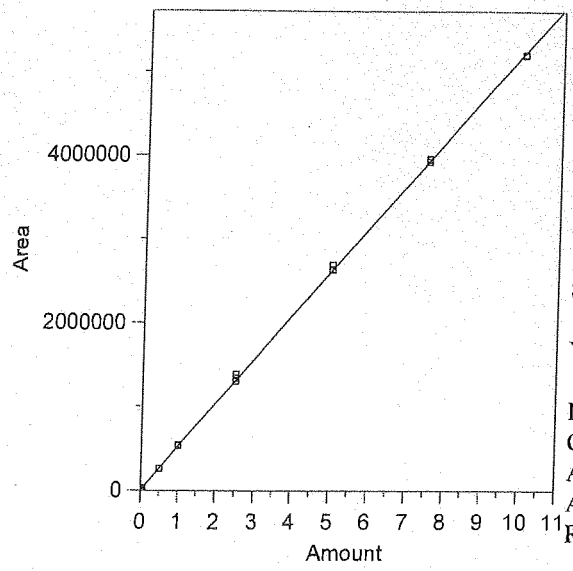
Single peak quantification by area

$Y = 635498.8 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9998119
Average error: 2.277%
Average CF: 646538.3
RSD: 2.426%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	3319.347	663869.4	4.464	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	3370.723	674144.6	6.081	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	3248.552	649710.4	2.236	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	16006.42	640256.8	0.749	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	16354.98	654199.2	2.943	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	16366.92	654676.8	3.018	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	32105.94	642118.8	1.042	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	33903.62	678072.4	6.699	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	33799.1	675982	6.370	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	315170.2	630340.4	-0.812	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	313531.4	627062.8	-1.327	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	311779	623558	-1.879	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	657848.8	657848.8	3.517	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	645232.1	645232.1	1.532	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	655379.7	655379.7	3.128	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1573829	629531.6	-0.939	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1620797	648318.8	2.017	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1673874	669549.6	5.358	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	3188477	637695.4	0.346	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	3204251	640850.2	0.842	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	3251028	650205.6	2.314	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	4808576	641143.4	0.888	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	4753309	633774.6	-0.271	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	4797090	639612	0.647	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	6314019	631401.9	-0.645	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	6326623	632662.3	-0.446	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	6293350	629335	-0.970	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

2 Acetaldehyde



Expected retention time: 3.257 minutes
Search window: 0.3 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

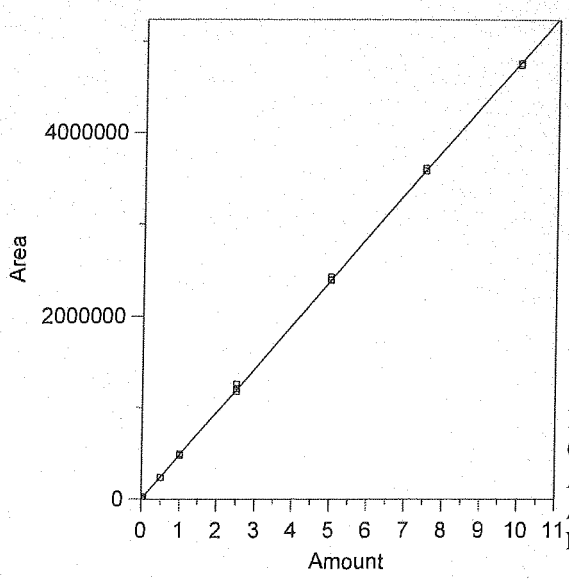
Single peak quantification by area

$Y = 523848.9 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9998139
Average error: 2.531%
Average CF: 534292.2
RSD: 2.711%

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

3 Acrolein



Expected retention time:	3.943 minutes
Search window:	0.2 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

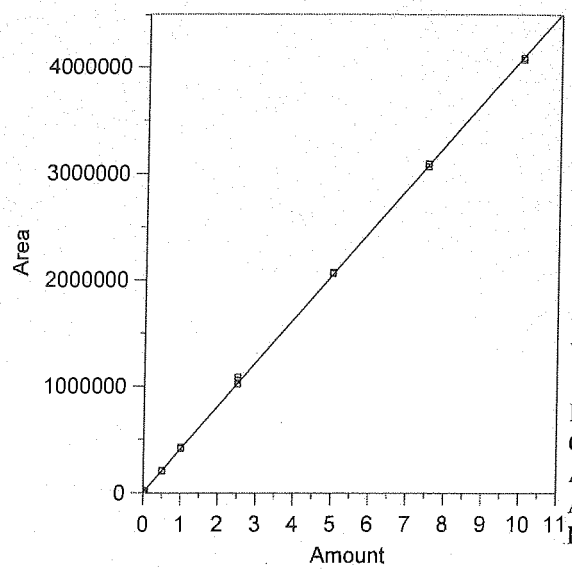
$Y = 477513.6 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9998558
Average error:	1.593%
Average CF:	479383.3
RSD:	2.006%

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

4 Acetone



Expected retention time:	4.132 minutes
Search window:	0.4 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

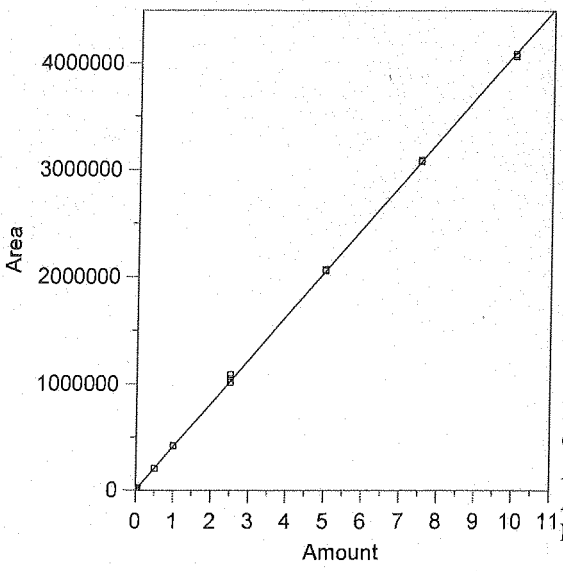
Y = 41)240.1 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.999868
Average error:	2.733%
Average CF:	420186.8
RSD:	2.868%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2183.345	436669	6.442	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2162.857	432571.4	5.443	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2166.039	433207.8	5.599	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	10593.84	423753.6	3.294	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	11158.68	446347.2	8.801	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	10863.23	434529.2	5.921	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	20778.5	415570	1.299	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	22119.85	442397	7.839	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	21561.34	431226.8	5.116	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	206884.7	413769.4	0.860	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	202801.7	405603.4	-1.130	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	204367.4	408734.8	-0.367	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	423714.7	423714.7	3.285	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	413611.8	413611.8	0.822	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	424962.7	424962.7	3.589	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1017069	406827.6	-0.832	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1052471	420988.4	2.620	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1082277	432910.8	5.526	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2059978	411995.6	0.428	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2061998	412399.6	0.526	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2074281	414856.2	1.125	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3090544	412072.5	0.447	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3065231	408697.5	-0.376	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3096511	412868.1	0.641	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4075368	407536.8	-0.659	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	4095606	409560.6	-0.166	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	4076624	407662.4	-0.628	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

5 Propionaldehyde



Expected retention time:	4.392 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

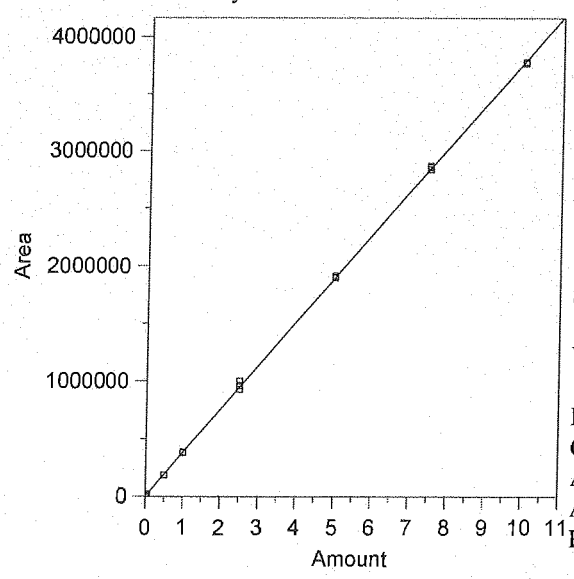
$Y = 409729.4 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9998541
Average error:	2.076%
Average CF:	414811.5
RSD:	2.614%

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

6 Crotonaldehyde



Expected retention time: 5.161 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

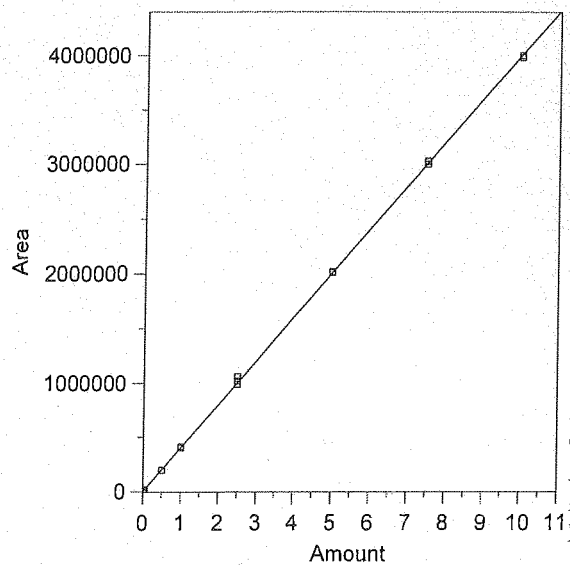
Single peak quantification by area

$Y = 379197.3 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9998879
Average error: 2.055%
Average CF: 377240.3
RSD: 2.954%

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

7 Methacrolein



Expected retention time: 5.502 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

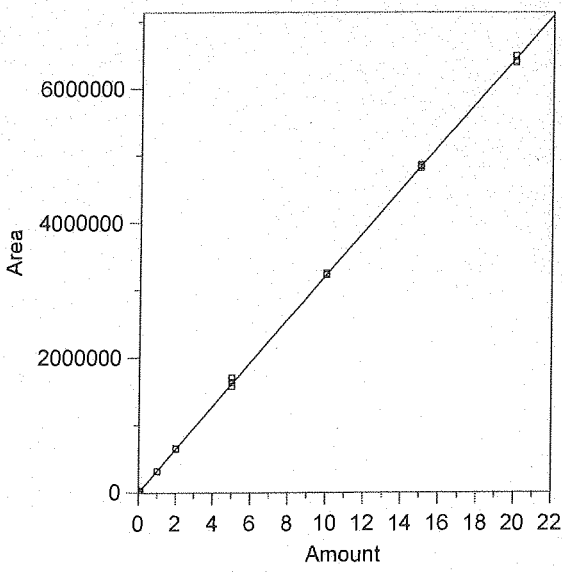
Single peak quantification by area

$Y = 401227.3 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9998807
Average error: 1.583%
Average CF: 405093.2
RSD: 1.942%

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

8 MEK & Butyraldehyde



Expected retention time:	5.872 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

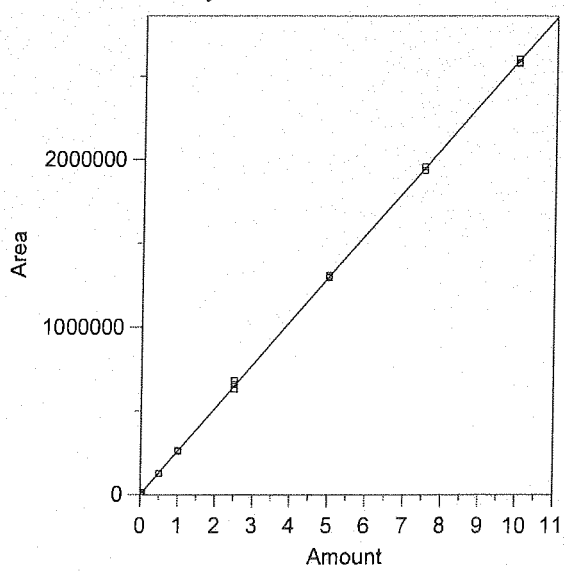
$Y = 322232.7 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.999867
Average error:	2.084%
Average CF:	327115.7
RSD:	2.391%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.01	3351.753	335175.3	4.017	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.01	3391.47	339147	5.249	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.01	3384.082	338408.2	5.020	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.05	16525.07	330501.4	2.566	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.05	16528.89	330577.8	2.590	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.05	16684.14	333682.8	3.553	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.1	32230.04	322300.4	0.021	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.1	34515.54	345155.4	7.114	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.1	33411.08	334110.8	3.686	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	1	317772.7	317772.7	-1.384	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	1	319288.8	319288.8	-0.914	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	1	317344.1	317344.1	-1.517	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	2	659698.4	329849.2	2.364	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	2	648058.6	324029.3	0.558	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	2	660032.3	330016.2	2.415	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	5	1578239	315647.8	-2.044	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	5	1635369	327073.8	1.502	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	5	1699770	339954	5.500	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	10	3225144	322514.4	0.087	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	10	3232554	323255.4	0.317	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	10	3248338	324833.8	0.807	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	15	4858471	323898.1	0.517	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	15	4813685	320912.3	-0.410	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	15	4835401	322360.1	0.040	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	20	6411478	320573.9	-0.515	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	20	6386688	319334.4	-0.899	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	20	6488133	324406.7	0.675	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

9 Benzaldehyde



Expected retention time:	6.315 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

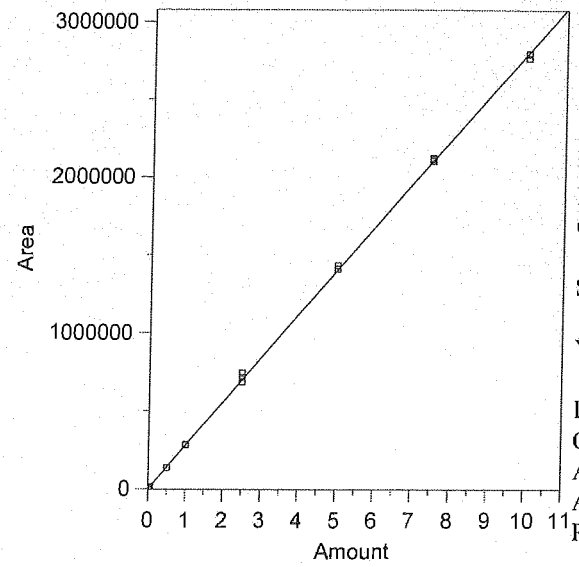
Y = 259532.3 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9998788
Average error:	1.745%
Average CF:	259316.8
RSD:	2.653%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1297.518	259503.6	-0.011	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1262	252400	-2.748	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1295.839	259167.8	-0.140	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	6666.208	266648.3	2.742	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	7034.047	281361.9	8.411	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	6534.359	261374.4	0.710	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	12466.06	249321.2	-3.934	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	13008.72	260174.4	0.247	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	12791.38	255827.6	-1.427	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	124939.2	249878.4	-3.720	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	125454.3	250908.6	-3.323	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	125079.6	250159.2	-3.612	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	262209.1	262209.1	1.031	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	257536.3	257536.3	-0.769	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	260766	260766	0.475	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	628872.8	251549.1	-3.076	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	656123.5	262449.4	1.124	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	681751.6	272700.7	5.074	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1294694	258938.8	-0.229	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1299522	259904.4	0.143	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1309382	261876.4	0.903	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	1958642	261152.3	0.624	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1935214	258028.5	-0.579	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1957459	260994.5	0.563	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2584429	258442.9	-0.420	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2577391	257739.1	-0.691	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2605401	260540.1	0.388	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

10 Valeraldehyde



Expected retention time:	8.218 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

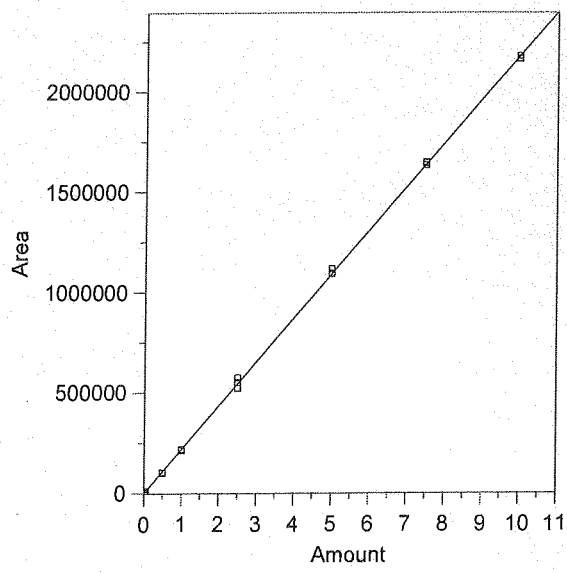
$Y = 280512\ X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9997866
Average error:	2.469%
Average CF:	283524.1
RSD:	3.137%

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

11 m-Tolualdehyde



Expected retention time: 8.714 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High a arm limit: 0
Low alarm limit: 0
Component constant: 0

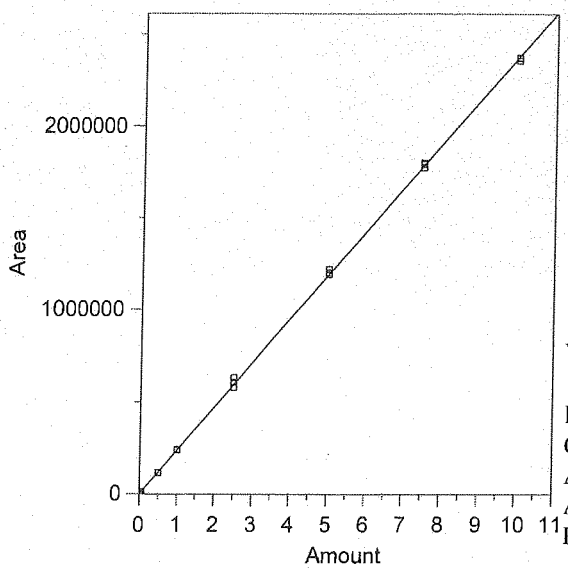
Single peak quantification by area

$Y = 217944 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.999814
Average error: 2.420%
Average CF: 216368.5
RSD: 3.395%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1084.321	216864.2	-0.495	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1047.397	209479.4	-3.884	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1050.553	210110.6	-3.594	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	5352.188	214087.5	-1.769	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	5534.859	221394.4	1.583	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	5846.229	233849.2	7.298	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	10182.27	203645.4	-6.561	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	10890.73	217814.6	-0.059	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	11251.93	225038.6	3.255	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	101870.9	203741.8	-6.516	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	104487.3	208974.6	-4.115	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	101281.7	202563.4	-7.057	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	218741.4	218741.4	0.366	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	214107.1	214107.1	-1.761	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	216178.3	216178.3	-0.810	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	521558	208623.2	-4.277	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	549983.1	219993.3	0.940	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	574107.8	229643.1	5.368	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1091337	218267.4	0.148	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1093125	218625	0.312	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1115959	223191.8	2.408	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	1646059	219474.5	0.702	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1632394	217652.5	-0.134	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1643241	219098.8	0.530	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2178426	217842.6	-0.047	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2164076	216407.6	-0.705	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2165400	216540	-0.644	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

12 Hexaldehyde



Expected retention time:	11.69 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

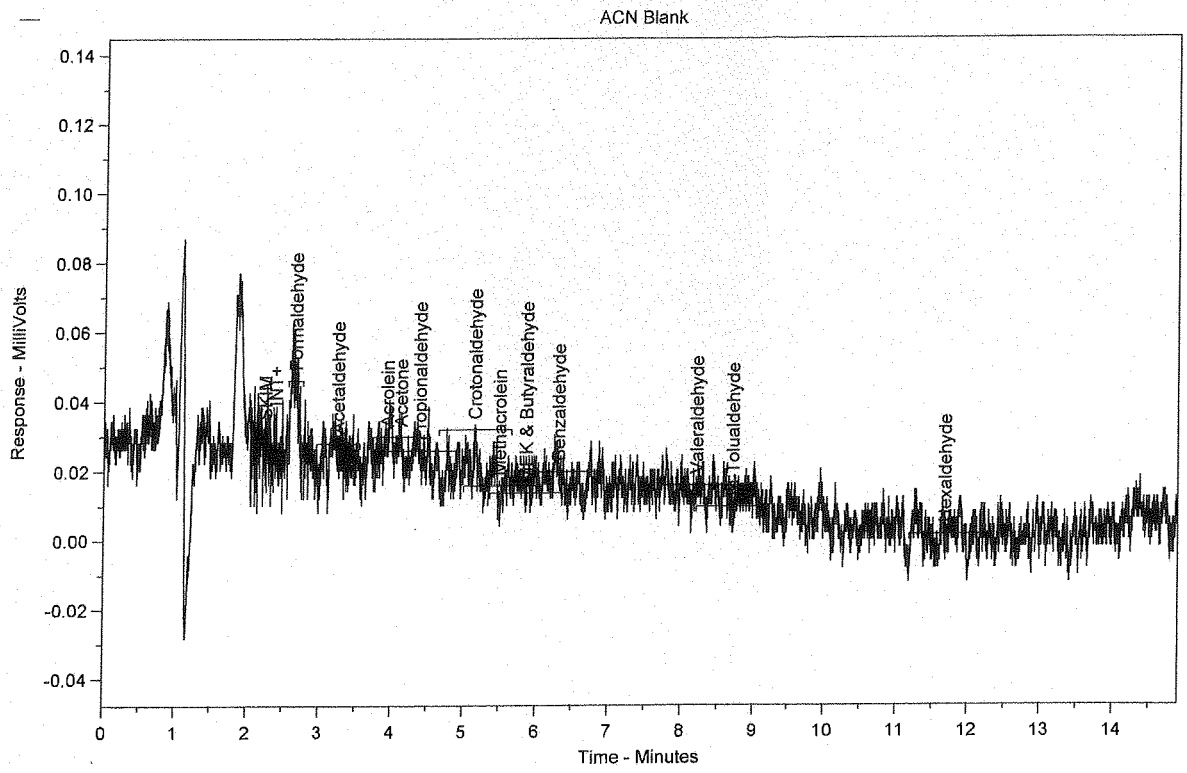
$Y = 238038.2\ X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9997897
Average error:	2.235%
Average CF:	239924.7
RSD:	2.911%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1179.385	235877	-0.908	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1141.726	228345.2	-4.072	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1198.028	239605.6	0.658	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	5798.175	231927	-2.567	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	6347.2	253888	6.659	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	6114.321	244572.8	2.745	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	12059.8	241196	1.327	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	12746.25	254925	7.094	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	12547.26	250945.2	5.422	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	116351.3	232702.6	-2.241	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	116956.5	233913	-1.733	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	115390.1	230780.2	-3.049	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	242438.8	242438.8	1.849	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	239854.8	239854.8	0.763	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	241212.3	241212.3	1.333	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	579103.3	231641.3	-2.687	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	607368.1	242947.3	2.062	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	632353.5	252941.4	6.261	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1190551	238110.2	0.030	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1200522	240104.4	0.868	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1219377	243875.4	2.452	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	1800685	240091.3	0.863	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1775360	236714.7	-0.556	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1793857	239180.9	0.480	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2371220	237122	-0.385	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2356180	235618	-1.017	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2374361	237436.1	-0.253	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

Raw Data



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

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Date Taken (end) = 4/19/2013 7:45:45 AM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

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

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

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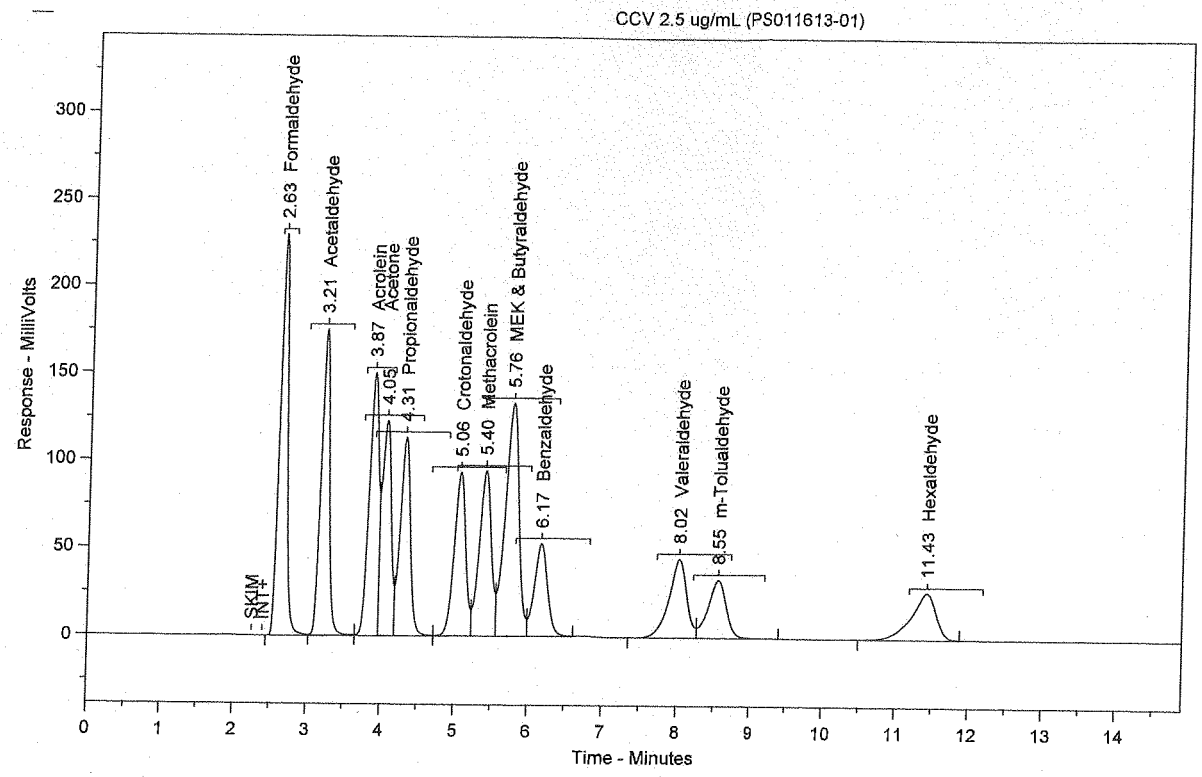


Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0002.RAW**
Date Taken (end) = 4/19/2013 8:02:21 AM

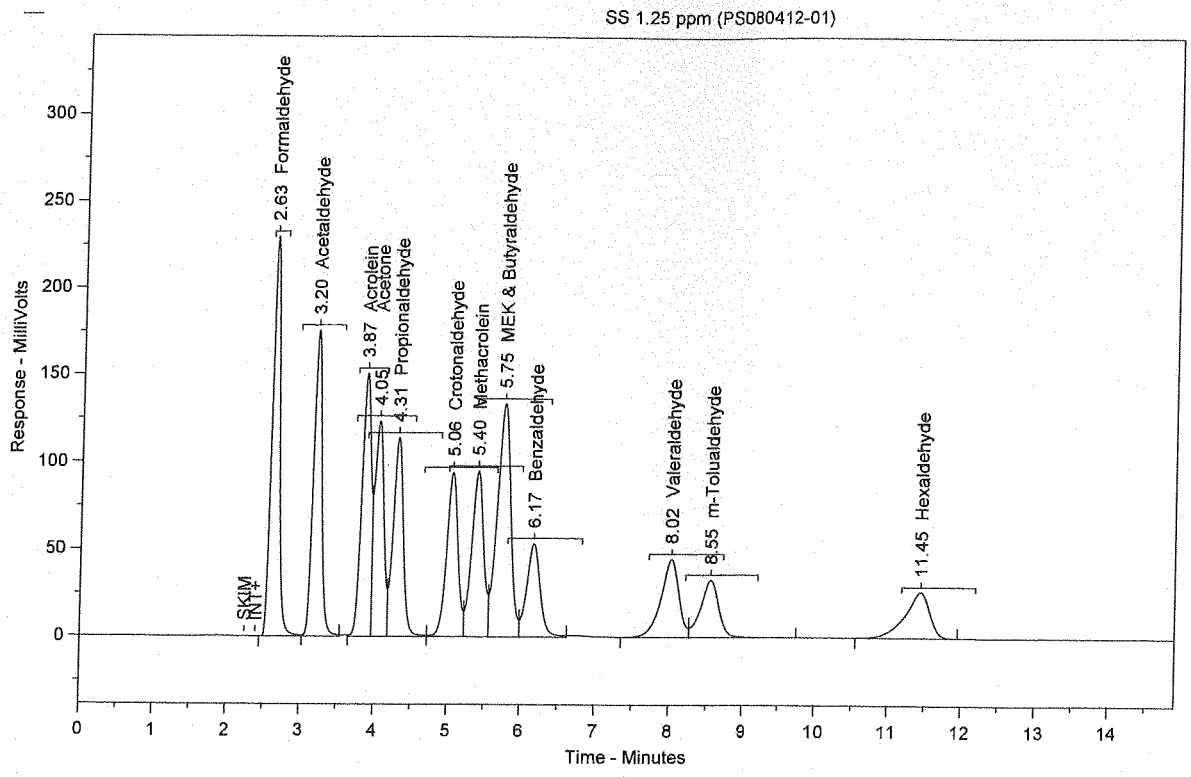
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	2.6856	7.788	1706716	13.154	SBB	0.11
2	3.21	Acetaldehyde	2.6884	7.796	1408341	10.854	TBV	0.12
3	3.87	Acrolein	2.6885	7.796	1283818	9.894	TVV	0.16
4	4.05	Acetone	2.6743	7.755	1097090	8.455	TVV	0.15
5	4.31	Propionaldehyde	2.6635	7.724	1091311	8.411	TVV	0.15
6	5.06	Crotonaldehyde	2.6357	7.643	999440	7.703	TVV	0.16
7	5.40	Methacrolein	2.6603	7.714	1067385	8.226	TVV	0.16
8	5.76	MEK & Butyraldehyde	5.3071	15.390	1710111	13.180	TVV	0.19
9	6.17	Benzaldehyde	2.5372	7.358	658495	5.075	TVB	0.19
10	8.02	Valeraldehyde	2.6778	7.765	751142	5.789	BV	0.25
11	8.55	m-Tolualdehyde	2.5918	7.516	564872	4.353	VB	0.26
12	11.43	Hexaldehyde	2.6744	7.755	636619	4.906	BB	0.35

Total Area = 1.297534E+07 Total Height = 1268181 Total Amount = 34.48468



Sample Name = **SS 1.25 ppm (PS080412-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0003.RAW**
Date Taken (end) = 4/19/2013 8:18:56 AM

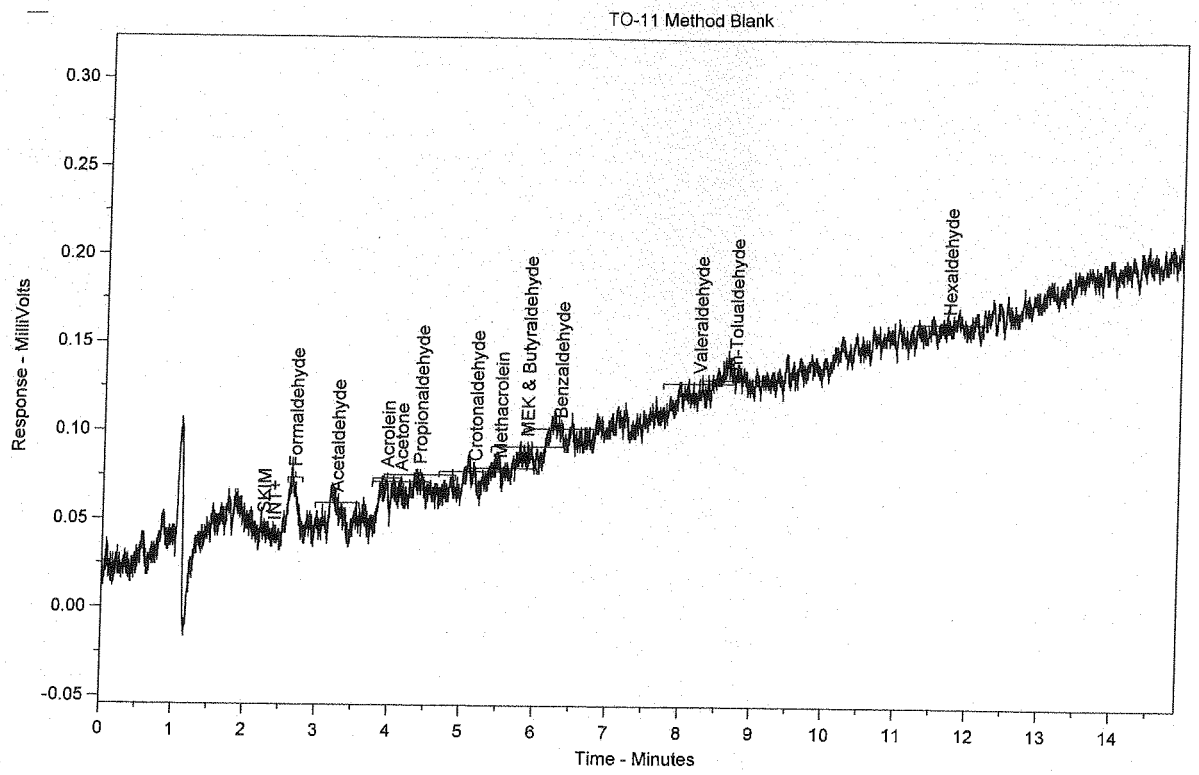
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 3
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.63	Formaldehyde	2.6681	7.718	1695593	13.052	SBB	0.11
2	3.20	Acetaldehyde	2.6720	7.729	1399729	10.775	TBB	0.12
3	3.87	Acrolein	2.6804	7.753	1279912	9.852	BV	0.16
4	4.05	Acetone	2.6670	7.714	1094111	8.422	VV	0.14
5	4.31	Propionaldehyde	2.6754	7.739	1096190	8.438	VV	0.15
6	5.06	Crotonaldehyde	2.6571	7.686	1007554	7.756	VV	0.16
7	5.40	Methacrolein	2.6721	7.729	1072126	8.253	VV	0.15
8	5.75	MEK & Butyraldehyde	5.3159	15.376	1712947	13.186	VV	0.19
9	6.17	Benzaldehyde	2.6310	7.610	682833	5.256	VB	0.19
10	8.02	Valeraldehyde	2.6860	7.769	753442	5.800	BV	0.24
11	8.55	m-Tolualdehyde	2.6147	7.563	569857	4.387	VB	0.26
12	11.45	Hexaldehyde	2.6319	7.613	626487	4.823	BB	0.35

Total Area = 1.299078E+07 Total Height = 1273763 Total Amount = 34.5715



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0004.RAW**
Date Taken (end) = 4/19/2013 8:35:31 AM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

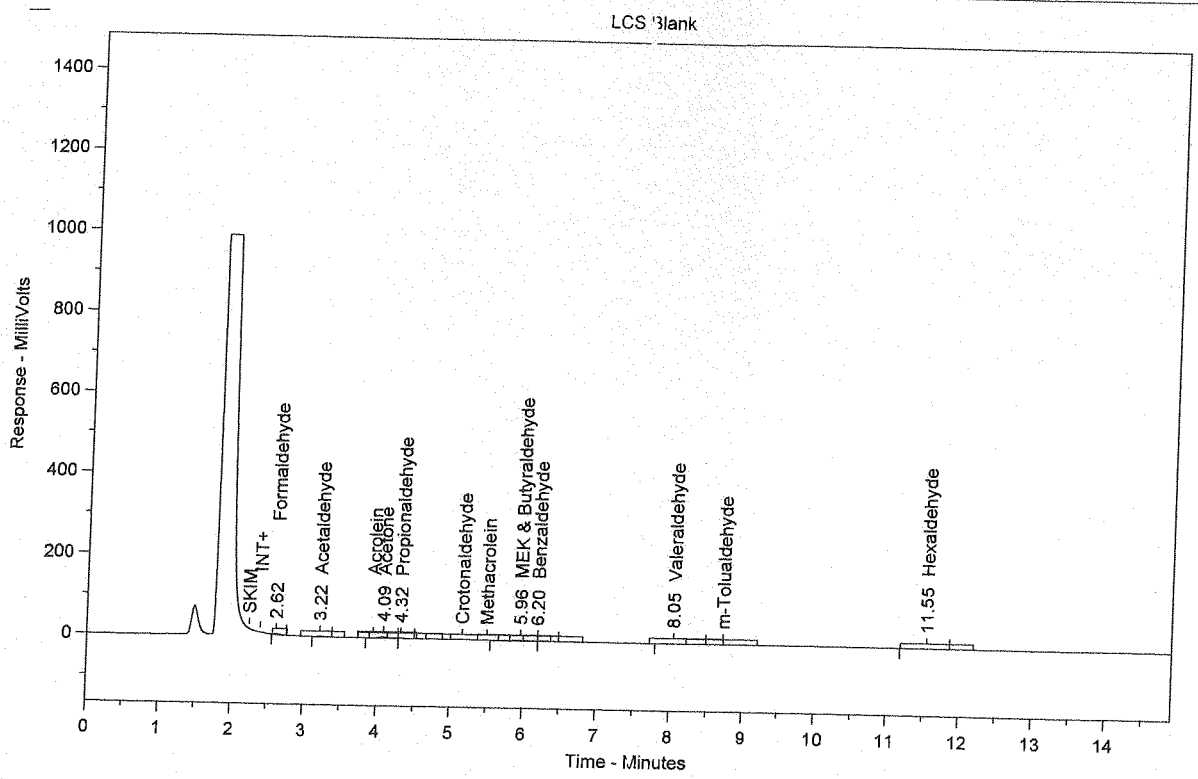
Run Time = 14.89889
Injection Volume = 10

Vial Number = 4
Dilution Factor = 1

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

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

HP
04/19/13



Sample Name = **LCS Blank**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0005.RAW**
Date Taken (end) = 4/19/2013 8:52:07 AM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

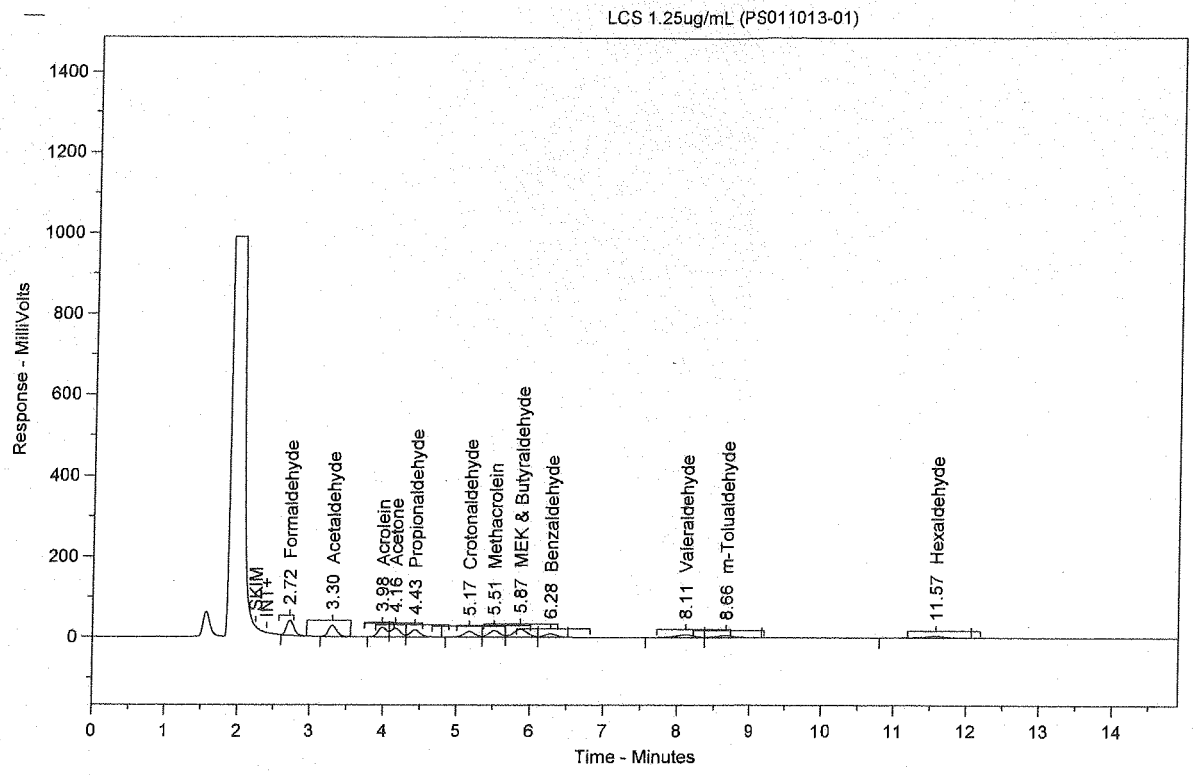
Vial Number = 5
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	0.0140	6.891	8873	11.556	BB	0.13
2	3.22	Acetaldehyde	0.0134	6.604	7009	9.129	BB	0.14
3	4.09	Acetone	0.0679	33.517	27859	36.285	BV	0.14
4	4.32	Propionaldehyde	0.0040	1.975	1640	2.135	VB	0.14
5	5.96	MEK & Butyraldehyde	0.0701	34.618	22602	29.438	BV	0.25
6	6.20	Benzaldehyde	0.0089	4.386	2307	3.004	VB	0.13
7	8.05	Valeraldehyde	0.0164	8.111	4610	6.004	BB	0.31
8	11.55	Hexaldehyde	0.0079	3.899	1880	2.449	BB	0.56

Total Area = 76779.43

Total Height = 7562.124

Total Amount = 0.2026158



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0006.RAW**
Date Taken (end) = 4/19/2013 9:08:42 AM

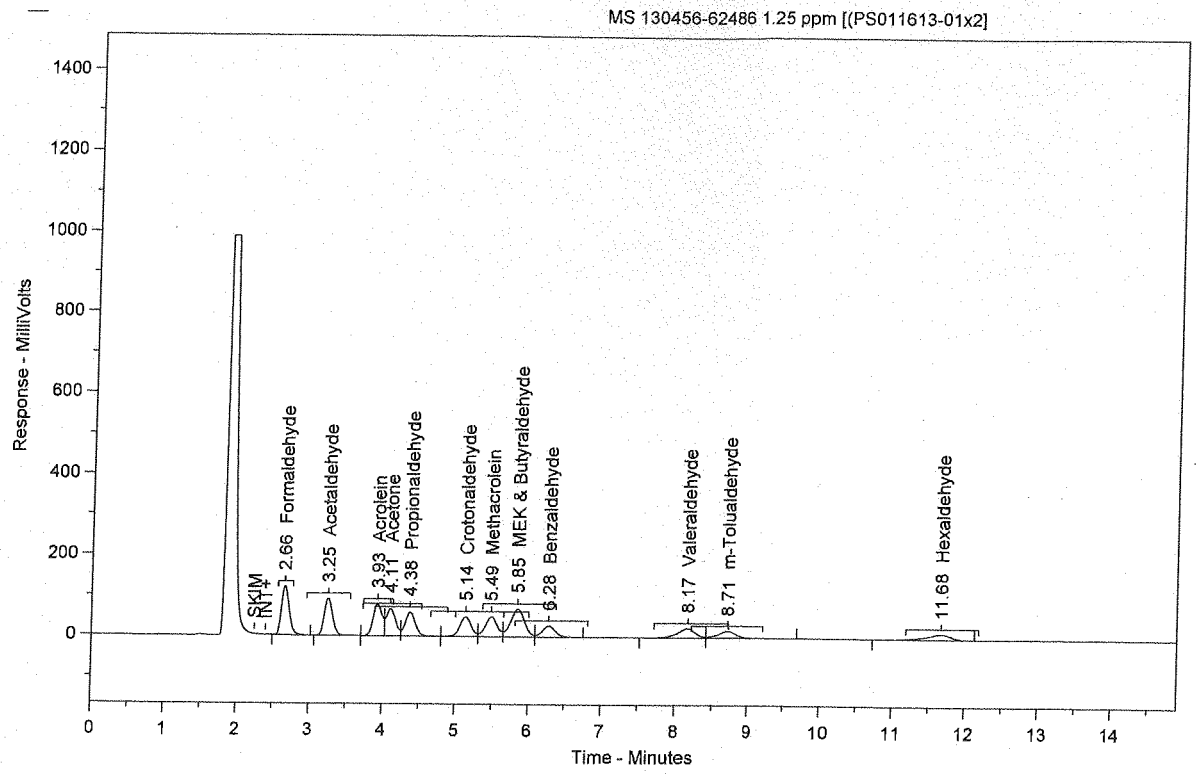
Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0006.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0006.BND
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	2.72	Formaldehyde	0.4075	7.618	258963	12.845	BB	0.12
2	3.30	Acetaldehyde	0.4084	7.635	213933	10.612	BB	0.12
3	3.98	Acrolein	0.4108	7.681	196182	9.731	BV	0.16
4	4.16	Acetone	0.4723	8.830	193754	9.611	VV	0.15
5	4.43	Propionaldehyde	0.4169	7.794	170804	8.472	VB	0.15
6	5.17	Crotonaldehyde	0.3981	7.443	150961	7.488	BV	0.16
7	5.51	Methacrolein	0.4305	8.049	172733	8.568	VV	0.15
8	5.87	MEK & Butyraldehyde	0.8100	15.144	261014	12.947	VV	0.19
9	6.28	Benzaldehyde	0.3628	6.782	94150	4.670	VB	0.18
10	8.11	Valeraldehyde	0.4278	7.999	120015	5.953	BV	0.25
11	8.66	m-Tolualdehyde	0.3884	7.261	84639	4.198	VB	0.26
12	11.57	Hexaldehyde	0.4153	7.764	98856	4.904	BB	0.36

Total Area = 2016003 Total Height = 199628.4 Total Amount = 5.348779



Sample Name = **MS 130456-62486 1.25 ppm [(PS011613-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0007.RAW**
Date Taken (end) = 4/19/2013 9:25:18 AM

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

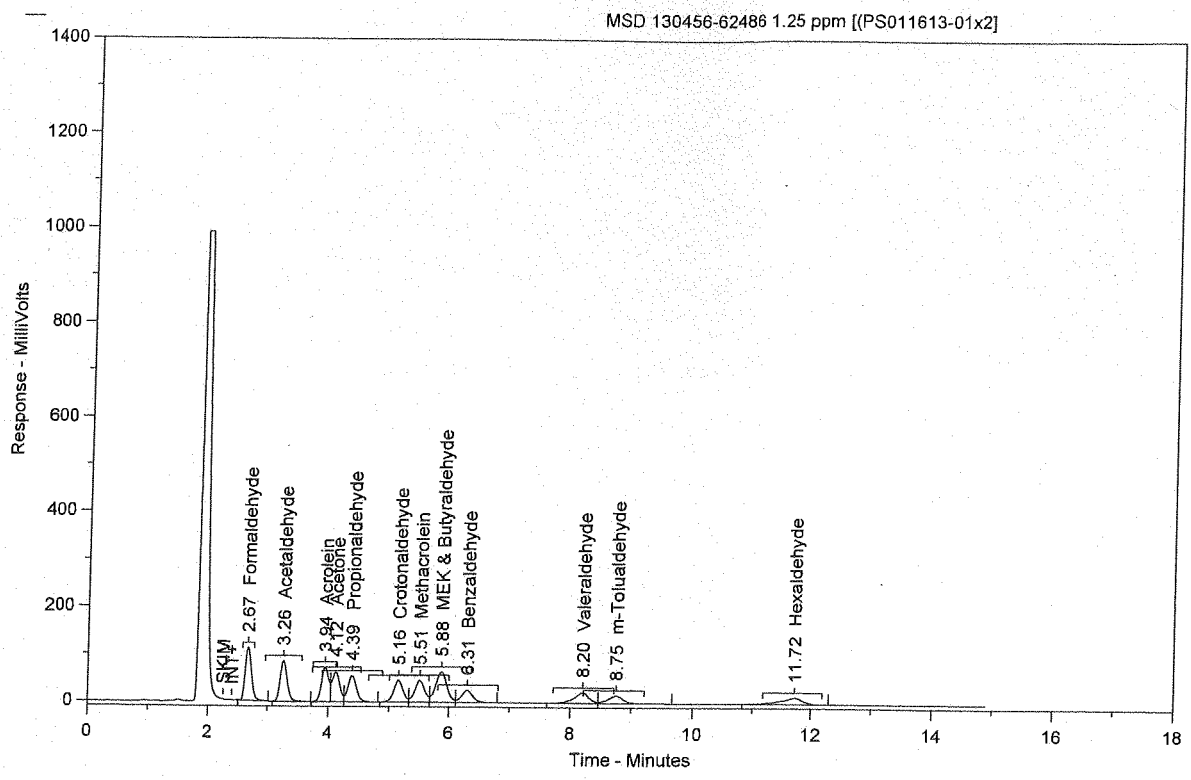
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 7
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	1.3845	7.661	879848	12.959	BB	0.11
2	3.25	Acetaldehyde	1.3906	7.695	728455	10.729	BB	0.12
3	3.93	Acrolein	1.3958	7.724	666531	9.817	BV	0.16
4	4.11	Acetone	1.4589	8.073	598492	8.815	VV	0.15
5	4.38	Propionaldehyde	1.3806	7.640	565681	8.332	VB	0.15
6	5.14	Crotonaldehyde	1.3746	7.606	521229	7.677	BV	0.16
7	5.49	Methacrolein	1.3947	7.718	559587	8.242	VV	0.16
8	5.85	MEK & Butyraldehyde	2.7898	15.437	898950	13.241	VV	0.19
9	6.28	Benzaldehyde	1.3259	7.337	344120	5.069	VB	0.19
10	8.17	Valeraldehyde	1.4071	7.786	394699	5.813	BV	0.25
11	8.71	m-Tolualdehyde	1.3629	7.542	297034	4.375	VB	0.26
12	11.68	Hexaldehyde	1.4063	7.782	334748	4.930	BB	0.36

Total Area = 6789373 Total Height = 665352.5 Total Amount = 18.07158



Sample Name = **MSD 130456-62486 1.25 ppm [(PS011613-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0008.RAW**
Date Taken (end) = 4/19/2013 9:41:53 AM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	1.2876	7.736	818296	13.062	BB	0.11
2	3.26	Acetaldehyde	1.2877	7.736	674575	10.768	BB	0.12
3	3.94	Acrolein	1.2949	7.779	618346	9.870	BV	0.16
4	4.12	Acetone	1.3484	8.101	553173	8.830	VV	0.15
5	4.39	Propionaldehyde	1.2751	7.660	522457	8.340	VB	0.15
6	5.16	Crotonaldehyde	1.2692	7.625	481278	7.682	BV	0.16
7	5.51	Methacrolein	1.2848	7.718	515499	8.229	VV	0.16
8	5.88	MEK & Butyraldehyde	2.5724	15.454	828906	13.231	VV	0.19
9	6.31	Benzaldehyde	1.2155	7.302	315471	5.036	VB	0.19
10	8.20	Valeraldehyde	1.2903	7.752	361955	5.778	BV	0.25
11	8.75	m-Tolualdehyde	1.2466	7.489	271695	4.337	VB	0.26
12	11.72	Hexaldehyde	1.2731	7.648	303041	4.837	BB	0.35

Total Area = 6264692 Total Height = 613530.4 Total Amount = 16.64581

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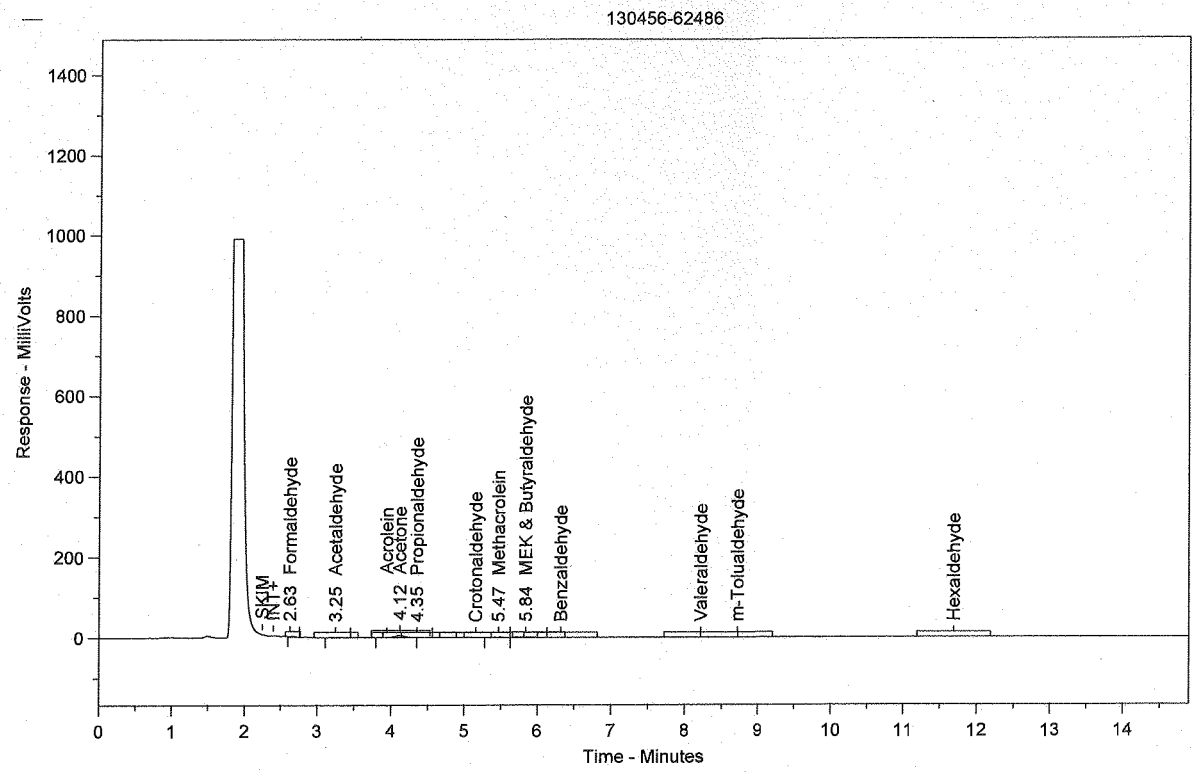


Sample Name = **130456-62486** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0009.RAW**
Date Taken (end) = 4/19/2013 9:58:32 AM

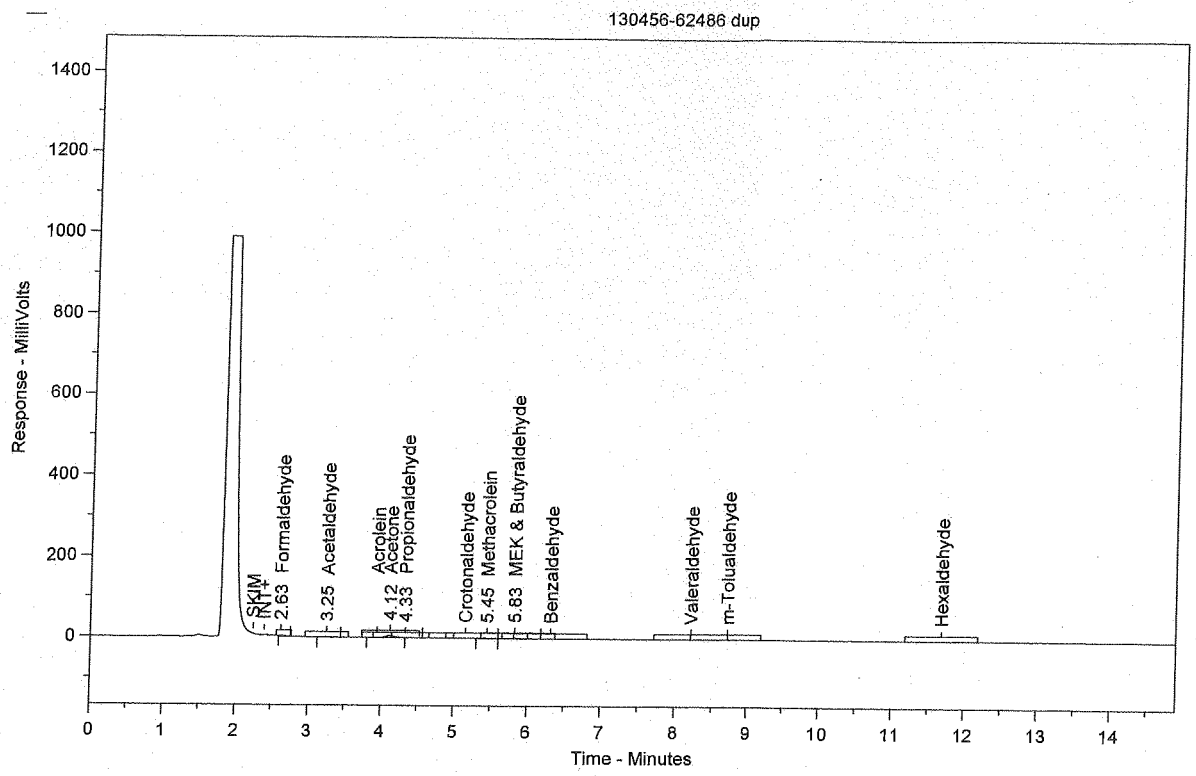
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 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	2.63	Formaldehyde	0.0120	6.609	7618	10.040	BB	0.11
2	3.25	Acetaldehyde	0.0147	8.133	7727	10.184	BB	0.13
3	4.12	Acetone	0.1142	62.975	46855	61.756	SBB	0.14
4	4.35	Propionaldehyde	0.0025	1.384	1029	1.356	TBB	0.11
5	5.47	Methacrolein	0.0054	2.997	2181	2.875	BV	0.15
6	5.84	MEK & Butyraldehyde	0.0325	17.901	10462	13.789	VB	0.20

Total Area = 75871.41 Total Height = 8353.444 Total Amount = 0.1813648



Sample Name = **130456-62486 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0010.RAW**
Date Taken (end) = 4/19/2013 10:15:08 AM

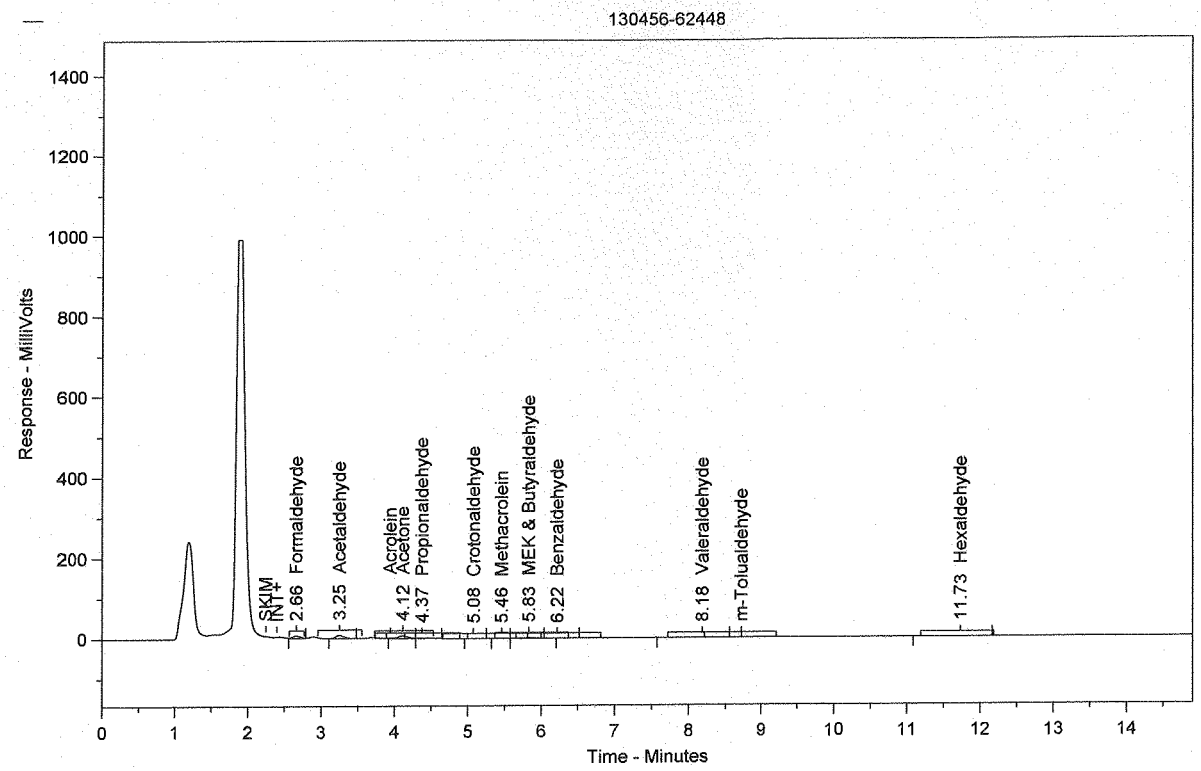
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 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	2.63	Formaldehyde	0.0118	6.501	7472	9.899	BB	0.11
2	3.25	Acetaldehyde	0.0144	7.936	7519	9.962	BB	0.13
3	4.12	Acetone	0.1136	62.831	46619	61.762	SBB	0.14
4	4.33	Propionaldehyde	0.0027	1.467	1087	1.440	TBB	0.11
5	5.45	Methacrolein	0.0050	2.737	1986	2.632	BV	0.16
6	5.83	MEK & Butyraldehyde	0.0335	18.528	10798	14.306	VB	0.19

Total Area = 75482.4 Total Height = 8352.482 Total Amount = 0.1808657



Sample Name = **130456-62448** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0011.RAW**
Date Taken (end) = 4/19/2013 10:31:43 AM

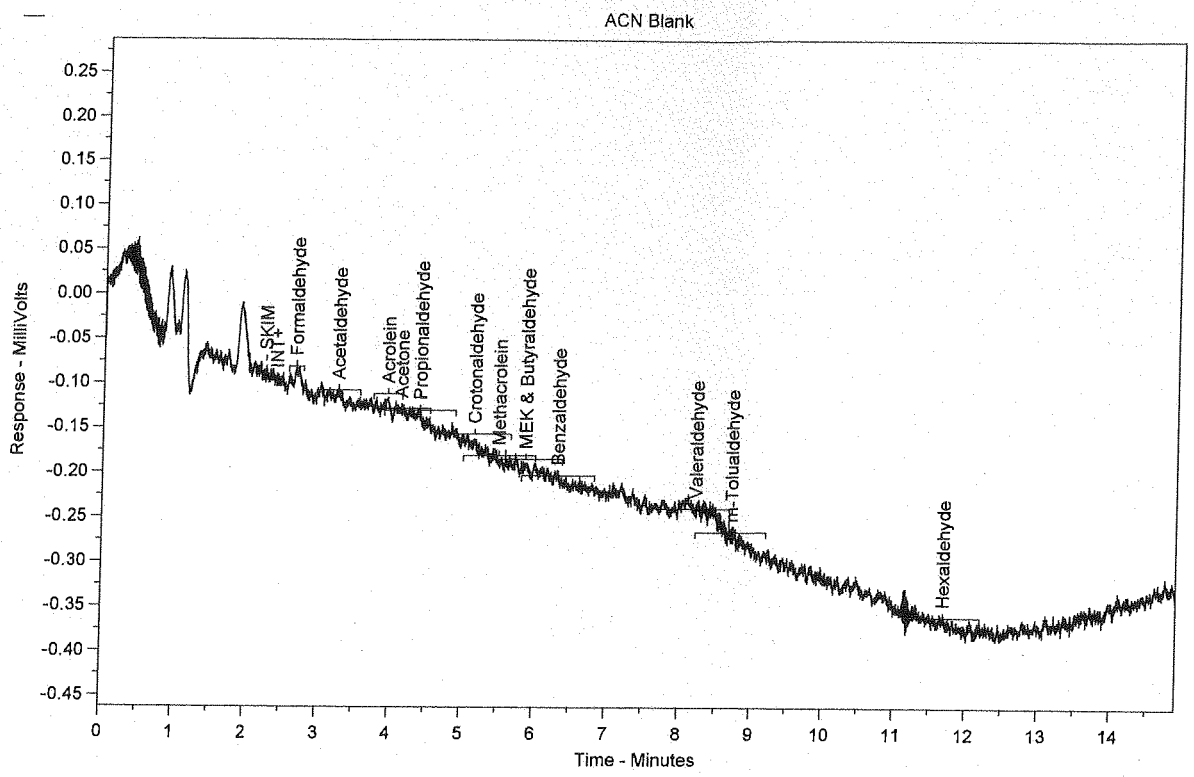
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 11
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	0.0541	11.322	34357	16.470	BB	0.11
2	3.25	Acetaldehyde	0.1211	25.365	63447	30.416	BB	0.12
3	4.12	Acetone	0.1507	31.563	61829	29.640	BV	0.13
4	4.37	Propionaldehyde	0.0350	7.334	14348	6.878	VB	0.18
5	5.08	Crotonaldehyde	0.0028	0.591	1069	0.513	BB	0.22
6	5.46	Methacrolein	0.0043	0.895	1715	0.822	BV	0.15
7	5.83	MEK & Butyraldehyde	0.0535	11.209	17247	8.268	VB	0.19
8	6.22	Benzaldehyde	0.0108	2.252	2790	1.338	BB	0.17
9	8.18	Valeraldehyde	0.0244	5.100	6831	3.275	BB	0.42
10	11.73	Hexaldehyde	0.0209	4.369	4966	2.381	BB	0.49

Total Area = 208599.8 Total Height = 22917.76 Total Amount = 0.4774968



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0012.RAW**
Date Taken (end) = 4/19/2013 10:48:18 AM

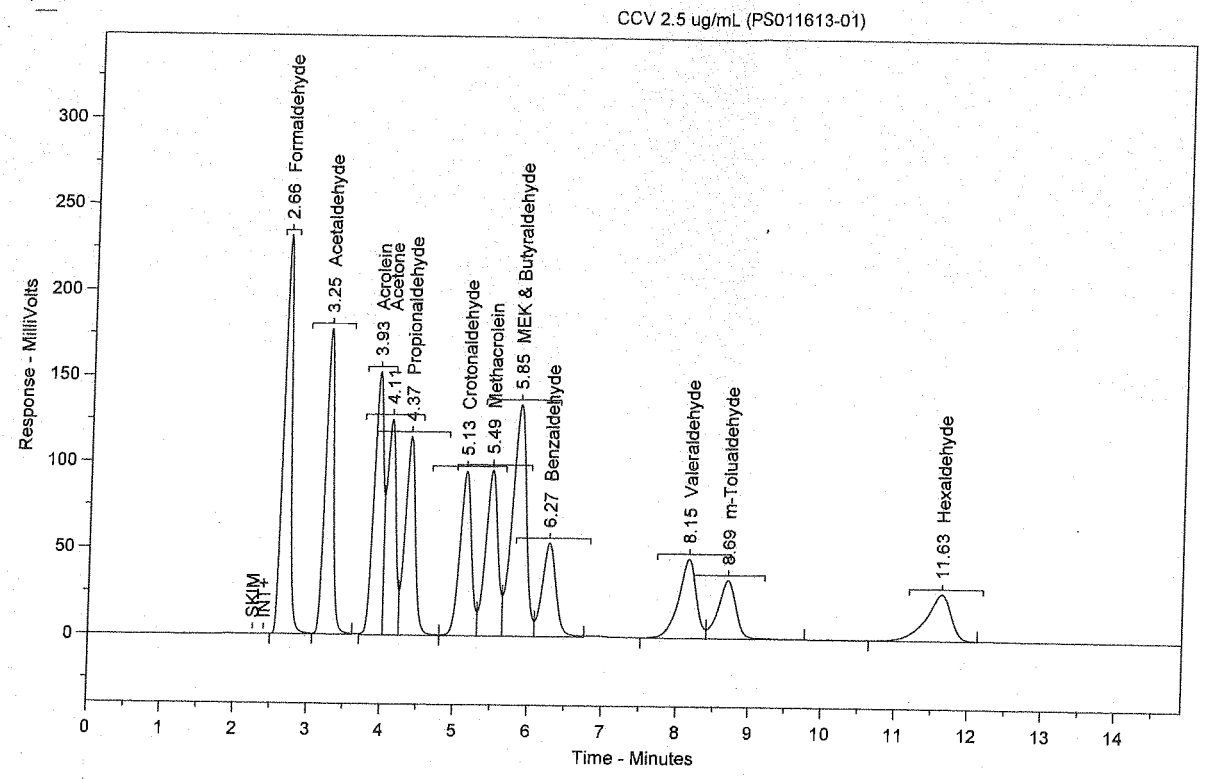
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

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

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

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



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0013.RAW**
Date Taken (end) = 4/19/2013 11:04:53 AM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

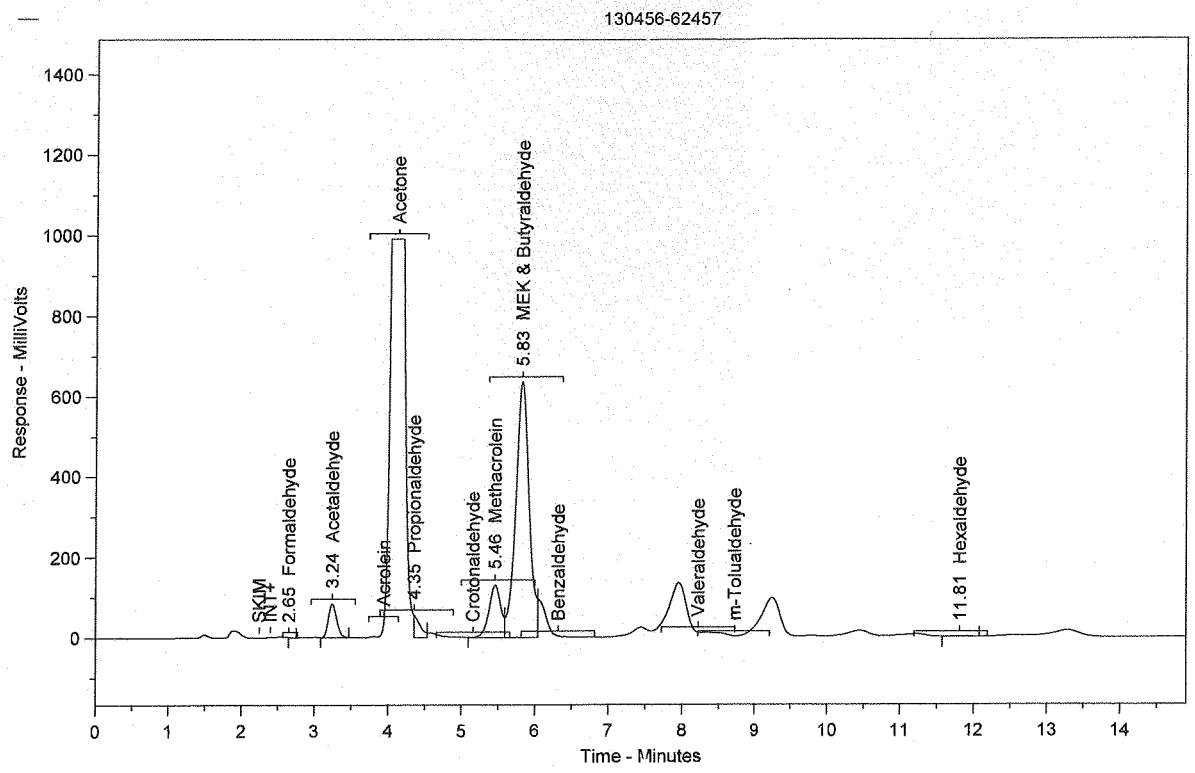
Run Time = 14.89889
Injection Volume = 10

Vial Number = 13
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	2.7005	7.659	1716135	12.965	SBB	0.11
2	3.25	Acetaldehyde	2.7222	7.721	1426028	10.773	TBB	0.12
3	3.93	Acrolein	2.7411	7.774	1308931	9.888	BV	0.16
4	4.11	Acetone	2.7230	7.723	1117087	8.439	VV	0.15
5	4.37	Propionaldehyde	2.7141	7.697	1112028	8.401	VV	0.15
6	5.13	Crotonaldehyde	2.7038	7.668	1025260	7.745	VV	0.16
7	5.49	Methacrolein	2.7230	7.723	1092561	8.254	VV	0.16
8	5.85	MEK & Butyraldehyde	5.4159	15.360	1745169	13.184	VV	0.19
9	6.27	Benzaldehyde	2.6697	7.572	692870	5.234	VB	0.19
10	8.15	Valeraldehyde	2.7266	7.733	764830	5.778	BV	0.24
11	8.69	m-Tolualdehyde	2.6857	7.617	585336	4.422	VV	0.26
12	11.63	Hexaldehyde	2.7335	7.753	650678	4.916	VB	0.35

Total Area = 1.323691E+07 Total Height = 1289992 Total Amount = 35.259

MP
04/19/12



Sample Name = **130456-62457** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0014.RAW**
Date Taken (end) = 4/19/2013 11:21:29 AM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

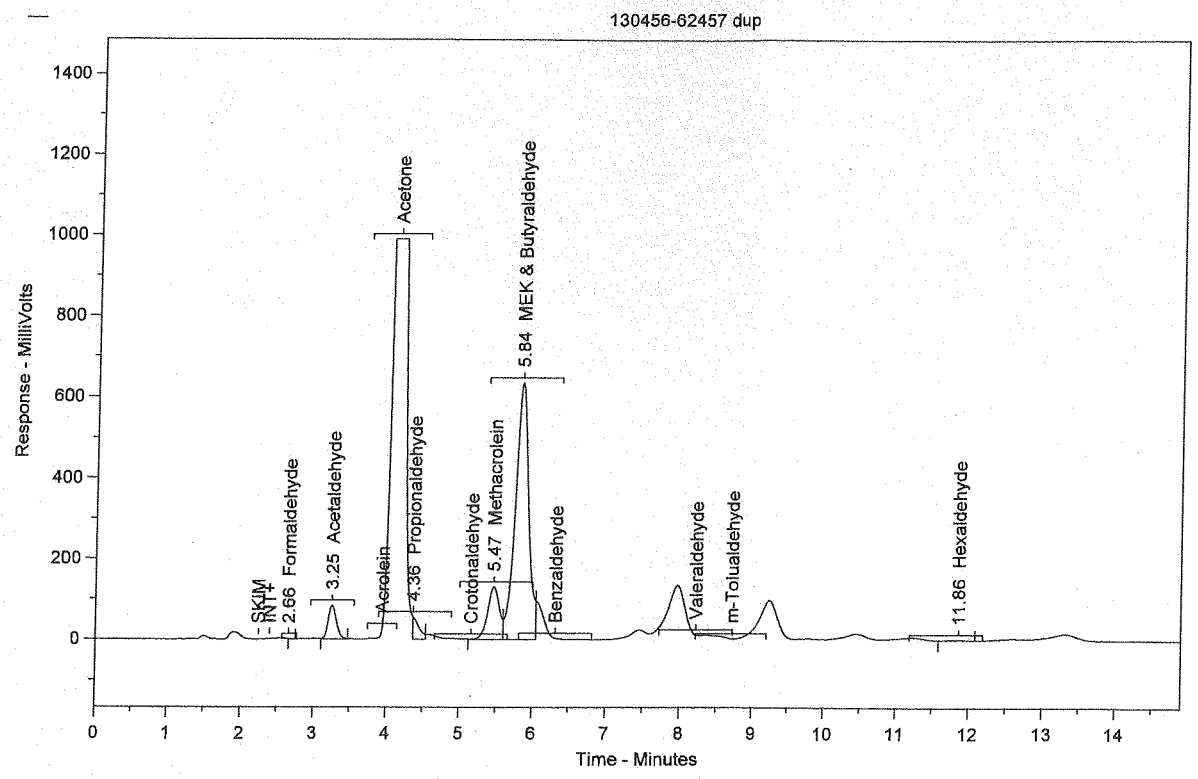
Run Time = 14.89889 Vial Number = 14
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.65	Formaldehyde	0.0037	0.012	2350	0.022	BB	0.04
2	3.24	Acetaldehyde	1.2678	4.117	664157	6.302	BB	0.12
3	4.35	Propionaldehyde	0.8211	2.666	336438	3.192	BB	0.08
4	5.46	Methacrolein	3.6624	11.892	1469448	13.943	BV	0.18
5	5.83	MEK & Butyraldehyde	25.0063	81.195	8057852	76.458	VB	0.18
6	11.81	Hexaldehyde	0.0364	0.118	8669	0.082	BB	0.34

Total Area = 1.053891E+07 Total Height = 906499.8 Total Amount = 30.79777

OVen Cal No1
EC 04/19/13

EC
04/19/13



Sample Name = **130456-62457 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0015.RAW**
Date Taken (end) = 4/19/2013 11:38:04 AM

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

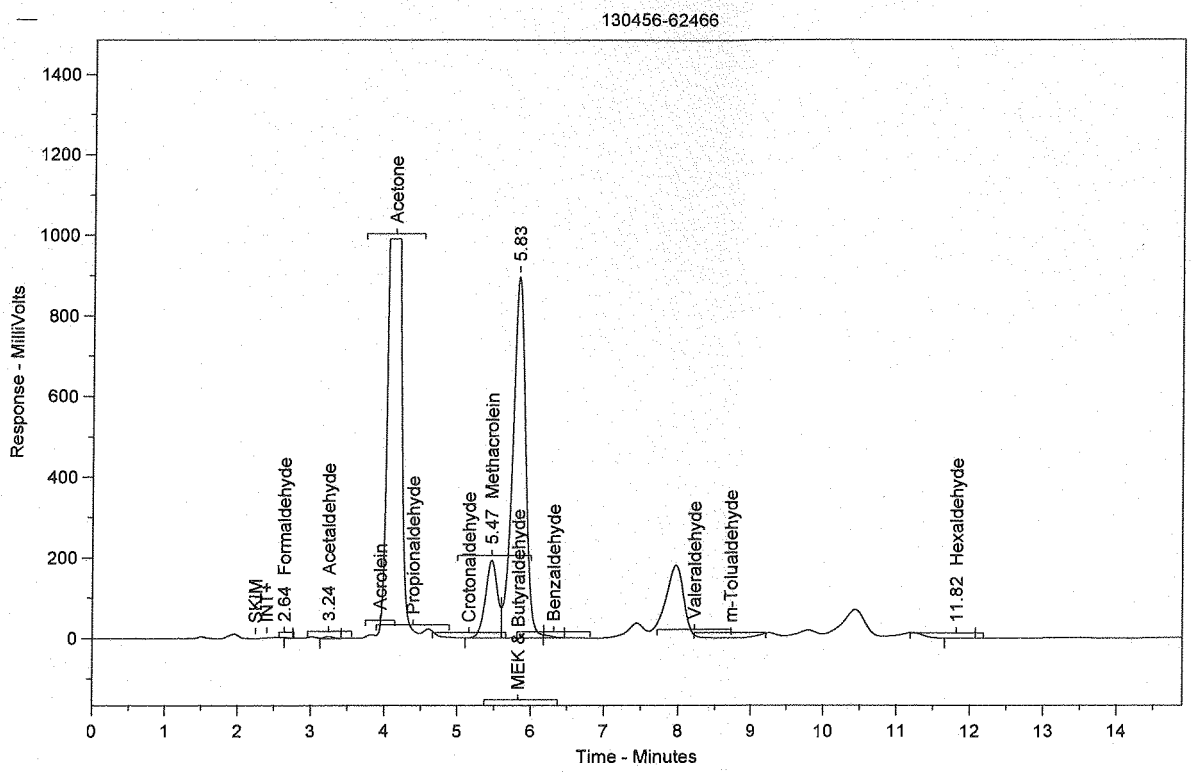
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	0.0033	0.011	2080	0.020	BB	0.04
2	3.25	Acetaldehyde	1.2788	4.152	669881	6.356	BB	0.12
3	4.36	Propionaldehyde	0.8011	2.601	328237	3.114	BB	0.07
4	5.47	Methacrolein	3.6651	11.901	1470532	13.953	BV	0.18
5	5.84	MEK & Butyraldehyde	25.0123	81.216	8059796	76.474	VB	0.18
6	11.86	Hexaldehyde	0.0369	0.120	8772	0.083	BB	0.34

Total Area = 1.05393E+07 Total Height = 905470.7 Total Amount = 30.79743

over calmax
EC 04/19/13



Sample Name = **130456-62466** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0016.RAW**
Date Taken (end) = 4/19/2013 11:54:40 AM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0016.BND
Method Description=TO-11A Carbonyls

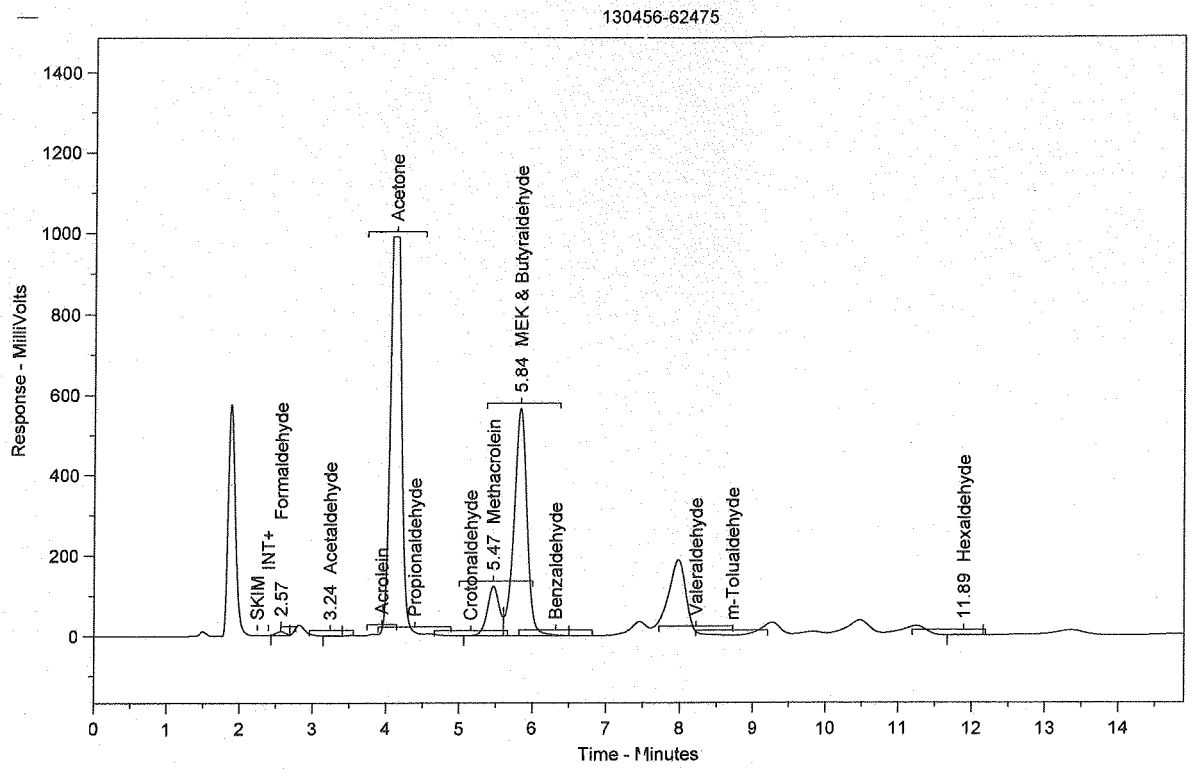
Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0016.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 16
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.64	Formaldehyde	0.0119	0.030	7555	0.057	BB	0.06
2	3.24	Acetaldehyde	0.0762	0.193	39943	0.302	BB	0.13
3	5.47	Methacrolein	5.4343	13.722	2180375	16.507	BV	0.18
~~4~~	~~5.83~~	~~MEK & Butyraldehyde~~	~~34.0726~~	~~86.036~~	~~10979312~~	~~83.120~~	~~SBB~~	~~0.18~~
6	11.82	Hexaldehyde	0.0076	0.019	1812	0.014	BB	0.31

Total Area = 1.3209E+07 Total Height = 1093396 Total Amount = 39.60263

our cal mix
EG 04/19/13



Sample Name = **130456-62475** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0017.RAW**
Date Taken (end) = 4/19/2013 12:11:15 PM

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

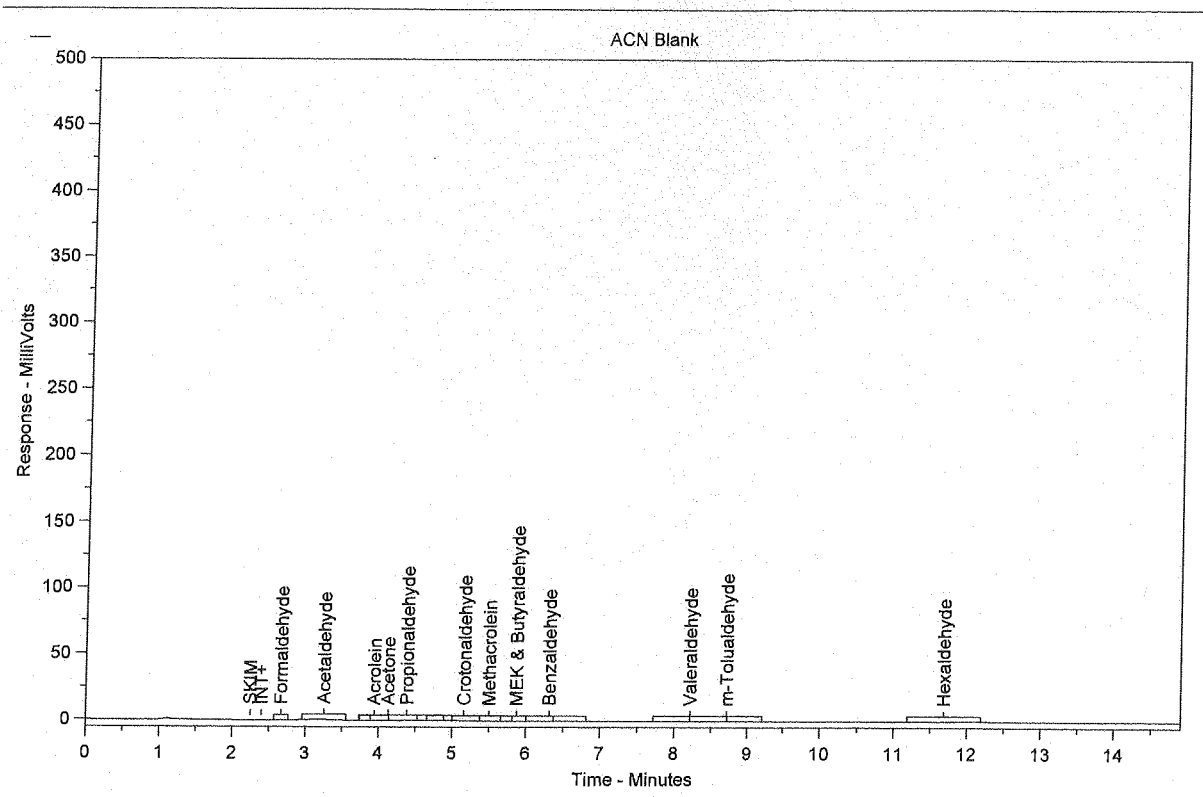
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 17
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.57	Formaldehyde	0.1483	0.588	94231	1.115	BB	0.15
2	3.24	Acetaldehyde	0.0184	0.073	9640	0.114	BB	0.14
3	5.47	Methacrolein	3.4738	13.770	1393766	16.499	BV	0.18
4	5.84	MEK & Butyraldehyde	21.5173	85.293	6933573	82.075	VB	0.18
5	11.89	Hexaldehyde	0.0697	0.276	16598	0.196	BB	0.30

Total Area = 8447808 Total Height = 700992.6 Total Amount = 25.22745

over calm
EC 04/19/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0018.RAW**
Date Taken (end) = 4/19/2013 12:27:50 PM

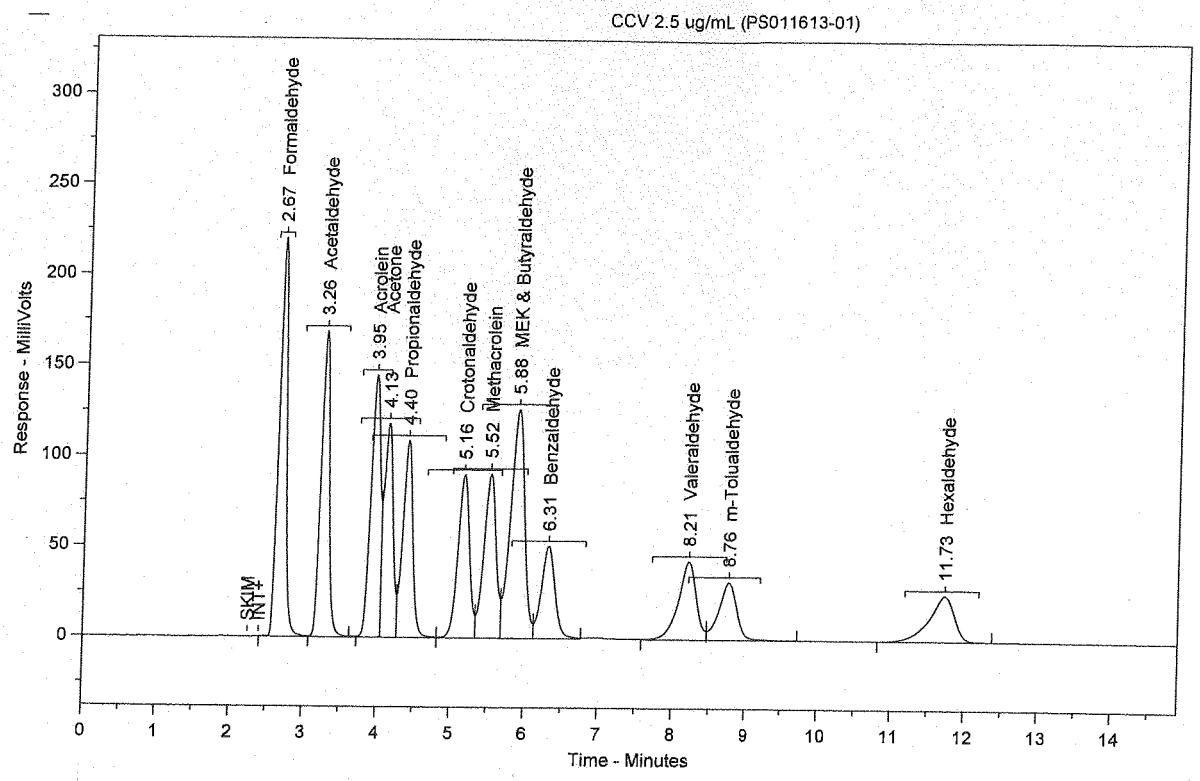
Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0018.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0018.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 18
Injection Volume = 10 Dilution Factor = 1

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

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\0419 3\041913.0019.RAW**
Date Taken (end) = 4/19/2013 12:44:29 PM

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

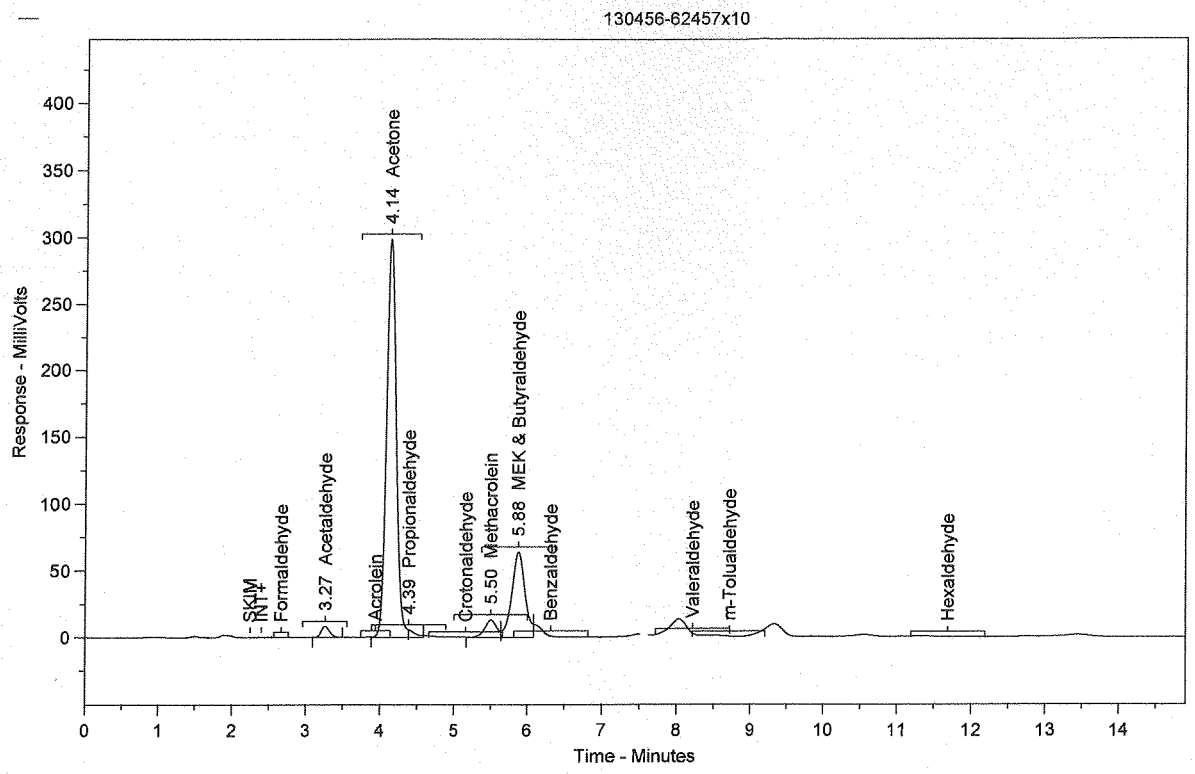
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 19
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	2.5645	7.724	1629739	13.054	SBB	0.11
2	3.26	Acetaldehyde	2.5811	7.774	1352109	10.830	TBV	0.12
3	3.95	Acrolein	2.5922	7.808	1237816	9.915	TVV	0.16
4	4.13	Acetone	2.5647	7.725	1052129	8.428	TVV	0.15
5	4.40	Propionaldehyde	2.5519	7.686	1045596	8.375	TVV	0.15
6	5.16	Crotonaldehyde	2.5548	7.695	968759	7.760	TVV	0.16
7	5.52	Methacrolein	2.5732	7.750	1032440	8.270	TVV	0.16
8	5.88	MEK & Butyraldehyde	5.1173	15.413	1648952	13.208	TVV	0.19
9	6.31	Benzaldehyde	2.5047	7.544	650045	5.207	TVB	0.19
10	8.21	Valeraldehyde	2.5586	7.706	717719	5.749	BV	0.24
11	8.76	m-Tolualdehyde	2.5028	7.538	545466	4.369	VB	0.26
12	11.73	Hexaldehyde	2.5353	7.636	603510	4.834	BB	0.35

Total Area = 1.248428E+07 Total Height = 1218005 Total Amount = 33.20105



Sample Name = **130456-62457x10** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0024.RAW**
Date Taken (end) = 4/19/2013 2:23:21 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0024.BND
Method Description=TO-11A Carbonyls

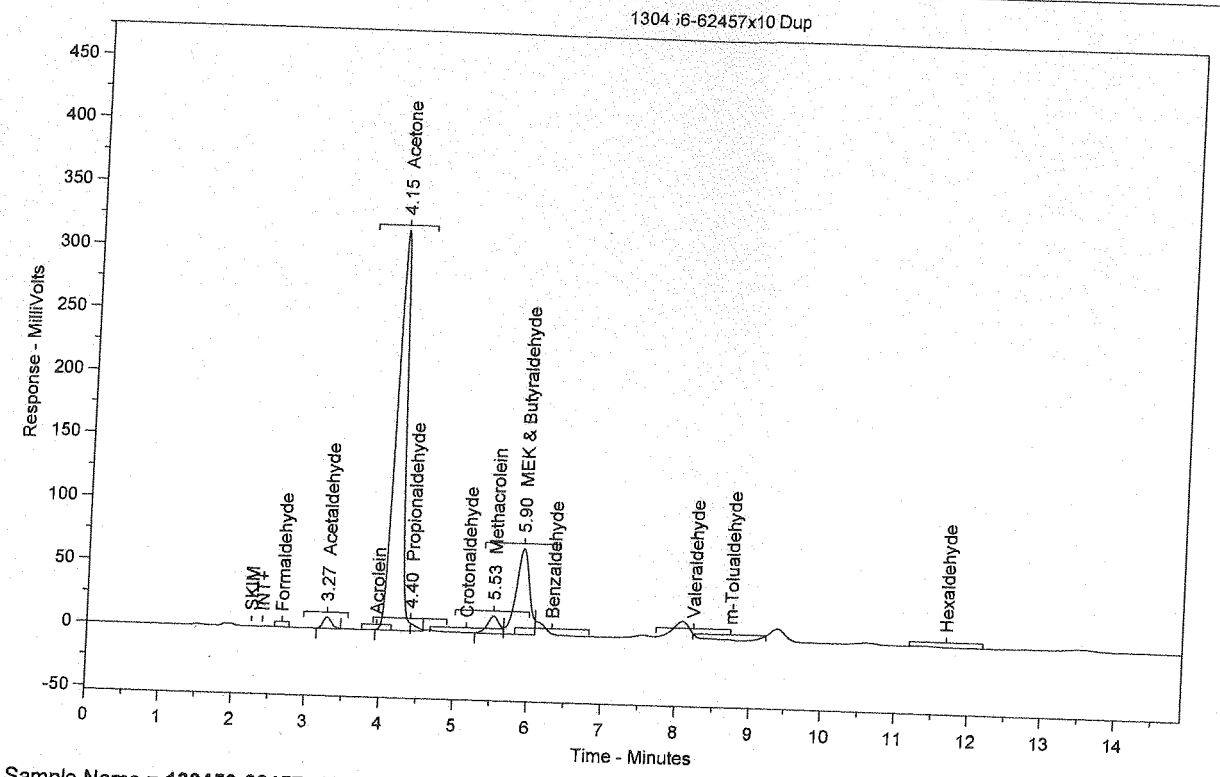
Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0024.BND
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	3.27	Acetaldehyde	1.2462	1.293	65284	1.743	BB	0.12
2	4.14	Acetone	65.6452	68.087	2693030	71.890	SBB	0.14
3	4.39	Propionaldehyde	0.8519	0.884	34906	0.932	TBB	0.07
4	5.50	Methacrolein	3.6683	3.805	147182	3.929	BV	0.18
5	5.88	MEK & Butyraldehyde	25.0017	25.932	805636	21.506	VB	0.18

Total Area = 3746038 Total Height = 389540 Total Amount = 96.41335

Confirmation only
Did not report
EG 04/12/13



Sample Name = **130456-62457x10 Dup**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0025.RAW**
Date Taken (end) = 4/19/2013 2:39:55 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0025.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0025.BND
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

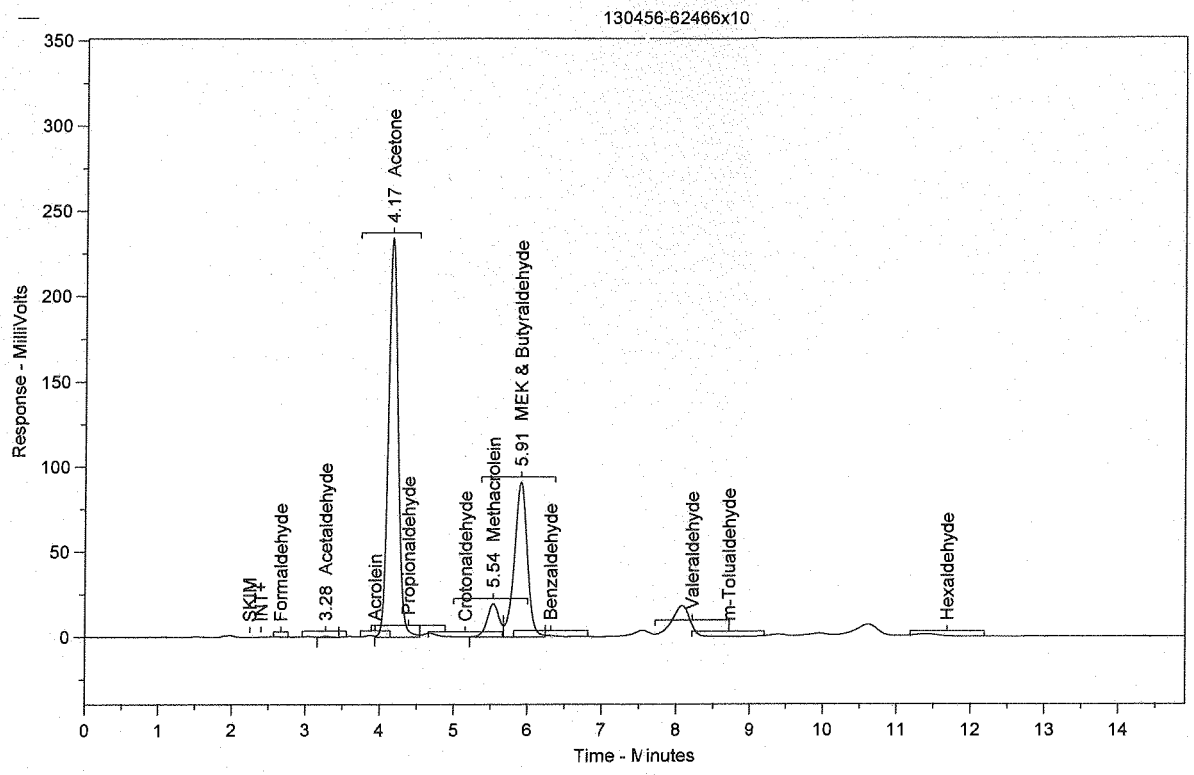
Vial Number = 25
Dilution Factor = 10

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	3.27	Acetaldehyde	1.3039	1.285	68304	1.731	BB	0.12
2	4.15	Acetone	69.5378	68.534	2852722	72.305	SBB	0.14
3	4.40	Propionaldehyde	0.8354	0.823	34231	0.868	TBB	0.08
4	5.53	Methacrolein	3.8406	3.785	154094	3.906	BV	0.17
5	5.90	MEK & Butyraldehyde	25.9464	25.572	836076	21.191	VB	0.18

Total Area = 3945427

Total Height = 412681.9

Total Amount = 101.4641



Sample Name = **130456-62466x10** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0026.RAW**
Date Taken (end) = 4/19/2013 2:56:30 PM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

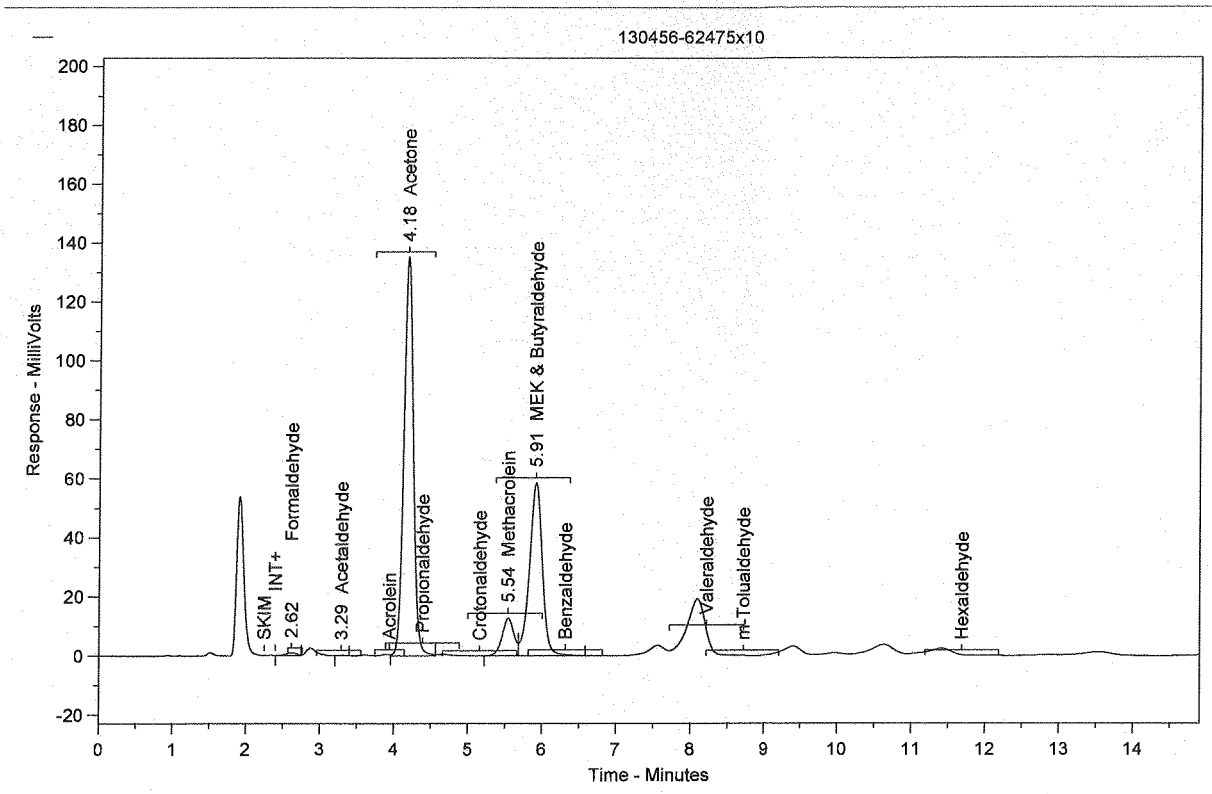
Run Time = 14.89889 Vial Number = 26
Injection Volume = 10 Dilution Factor = 10

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
~~1~~	~~3.28~~	~~Acetaldehyde~~	~~0.0711~~	0.078	3727	0.108	BB	0.13
2	4.17	Acetone	51.8284	56.744	2126208	61.741	BB	0.14
~~3~~	~~5.54~~	~~Methacrolein~~	~~5.4428~~	5.959	218380	6.341	BV	0.18
4	5.91	MEK & Butyraldehyde	33.9950	37.219	1095430	31.809	VB	0.18

Total Area = 3443745 Total Height = 344731.9 Total Amount = 91.33731

Confirmation
Did not report
EC 04/19/13

EC
4/19/13



Sample Name = **130456-62475x10** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0027.RAW**
Date Taken (end) = 4/19/2013 3:13:05 PM

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

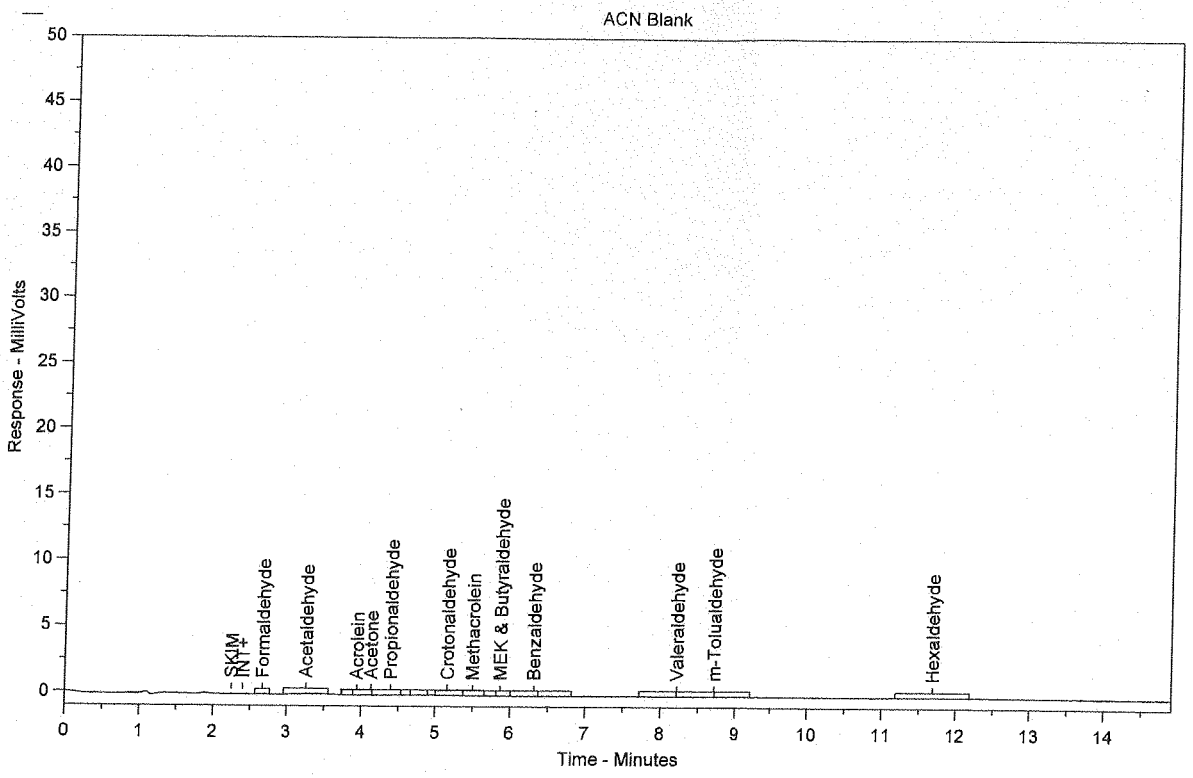
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

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

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.62	Formaldehyde	0.1398	0.253	8883	0.429	BB	0.16
2	3.29	Acetaldehyde	0.0195	0.035	1023	0.049	BB	0.15
3	4.18	Acetone	29.5155	53.453	1210844	58.448	BB	0.14
4	5.54	Methacrolein	3.5269	6.387	141510	6.831	BV	0.18
5	5.91	MEK & Butyraldehyde	22.0155	39.871	709411	34.243	VB	0.18

Total Area = 2071671 Total Height = 207362.8 Total Amount = 55.21722

Confirmation only
Did not vapor
check 6/11/13



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

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\041913\041913.0028.RAW**
Date Taken (end) = 4/19/2013 3:29:39 PM

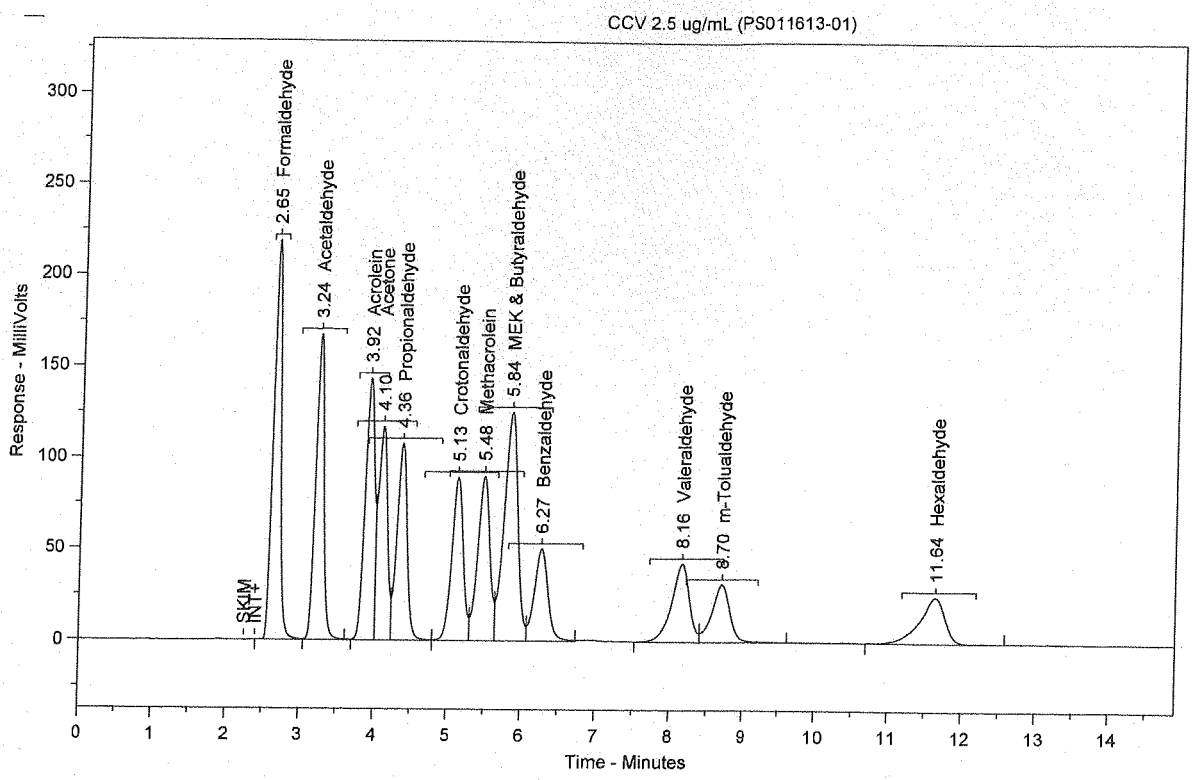
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 28
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\041913\041913.0029.RAW**
Date Taken (end) = 4/19/2013 3:46:18 PM

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

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 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	2.65	Formaldehyde	2.5198	7.677	1601305	12.996	SBB	0.11
2	3.24	Acetaldehyde	2.5274	7.700	1323967	10.745	TBV	0.12
3	3.92	Acrolein	2.5517	7.774	1218470	9.889	TVV	0.16
4	4.10	Acetone	2.5260	7.695	1036252	8.410	TVV	0.15
5	4.36	Propionaldehyde	2.5178	7.671	1031617	8.373	TVV	0.15
6	5.13	Crotonaldehyde	2.5253	7.694	957601	7.772	TVV	0.16
7	5.48	Methacrolein	2.5422	7.745	1019994	8.278	TVV	0.16
8	5.84	MEK & Butyraldehyde	5.0293	15.322	1620596	13.153	TVV	0.19
9	6.27	Benzaldehyde	2.4912	7.589	646534	5.247	TVB	0.19
10	8.16	Valeraldehyde	2.5386	7.734	712108	5.779	BV	0.24
11	8.70	m-Tolualdehyde	2.5095	7.645	546921	4.439	VV	0.25
12	11.64	Hexaldehyde	2.5455	7.755	605916	4.918	VB	0.35

Total Area = 1.232128E+07 Total Height = 1209773 Total Amount = 32.82407

File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\041913 (TO-11).SEQ
File Date = 4/19/2013 12:15:21 PM
Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	041913.0001.raw	011613 TO-11A.MET	ACN Blank	1	1
2	041913.0002.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	2	1
3	041913.0003.raw	011613 TO-11A.MET	SS 1.25 ppm (PS080412-01)	3	1
4	041913.0004.raw	011613 TO-11A.MET	TO-11 Method Blank	4	1
5	041913.0005.raw	011613 TO-11A.MET	LCS Blank	5	1
6	041913.0006.raw	011613 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	6	1
7	041913.0007.raw	011613 TO-11A.MET	MS 130456-62486 1.25 ppm [(PS011613-01x2]	7	1
8	041913.0008.raw	011613 TO-11A.MET	MSD 130456-62486 1.25 ppm [(PS011613-01x2]	8	1
9	041913.0009.raw	011613 TO-11A.MET	130456-62486	9	1
10	041913.0010.raw	011613 TO-11A.MET	130456-62486 dup	10	1
11	041913.0011.raw	011613 TO-11A.MET	130456-62448	11	1
12	041913.0012.raw	011613 TO-11A.MET	ACN Blank	12	1
13	041913.0013.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	041913.0014.raw	011613 TO-11A.MET	130456-62457	14	1
15	041913.0015.raw	011613 TO-11A.MET	130456-62457 dup	15	1
16	041913.0016.raw	011613 TO-11A.MET	130456-62466	16	1
17	041913.0017.raw	011613 TO-11A.MET	130456-62475	17	1
18	041913.0018.raw	011613 TO-11A.MET	ACN Blank	18	1
19	041913.0019.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	19	1
20	041913.0020.raw	011613 TO-11A.MET	130456-62457x100	20	100
21	041913.0021.raw	011613 TO-11A.MET	130456-62457x100 Dup	21	100
22	041913.0022.raw	011613 TO-11A.MET	130456-62466x100	22	100
23	041913.0023.raw	011613 TO-11A.MET	130456-62475x100	23	100
24	041913.0024.raw	011613 TO-11A.MET	130456-62457x10	24	10
25	041913.0025.raw	011613 TO-11A.MET	130456-62457x10 Dup	25	10
26	041913.0026.raw	011613 TO-11A.MET	130456-62466x10	26	10
27	041913.0027.raw	011613 TO-11A.MET	130456-62475x10	27	10
28	041913.0028.raw	011613 TO-11A.MET	ACN Blank	28	1
29	041913.0029.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	29	1