Columbia Analytical Services, Inc. 2655 Park Center Drive, Suite A | Simi Valley, CA 93065 | 805.526.7161 | 805.526.7270 fax | www.caslab.com

LABORATORY REPORT

October 1, 2009

Brian Baker
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

RE: 16512

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on September 4, 2009. For your reference, these analyses have been assigned our service request number P0903144.

All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 187 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera
Project Manager

Client: Environmental Health & Engineering, Inc. CAS Project No: P0903144
Project: 16512

CASE NARRATIVE

The samples were received intact under chain of custody on September 4, 2009 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Aldehyde Analysis

The samples were analyzed for aldehydes according to EPA Method TO-11A using high performance liquid chromatography (HPLC).

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Environmental Health & Engineering, Inc.
Project: 16512

Service Request: P0903144

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0903144-001	102708	9/1/09	00:00
P0903144-002	102709	9/1/09	00:00
P0903144-003	102710	9/1/09	00:00
P0903144-004	102711	9/1/09	00:00
P0903144-005	102712	9/1/09	00:00
P0903144-006	102713	9/1/09	00:00
P0903144-007	102714	9/1/09	00:00

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Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 09/02/09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

PO#53144

TO: Columbia Analytical Lab

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 1651.2

The cost of this analysis will be covered by EH&E Purchase Order # 1651.2

For EH & E Data Coordinator - URGENT DATA ☐

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
1	102708	AIR	EPA TO-11 Full List Aldehydes	09/01/09 1024 L
2	102709			99.8
3	102710			103.8
4	102711			104.6
5	102712			99.6
6	102713			0
7	102714			0
			field Blank	

Special instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient tminegishi@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: _____

Received by: [illegible] of (company name) CAS Date: 9/4/09 1005

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page ___ of ___

5 0 C 4

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Columbia Analytical Services, Inc.

Sample Acceptance Check Form

Client: Environmental Health & Engineering, Inc. Work order: P0903144

Project: 16512

Sample(s) received on: 09/04/09 Date opened: 09/04/09 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☐	☒	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Was a **chain-of-custody** provided?	☒	☐	☐
5	Was the **chain-of-custody** properly completed?	☐	☒	☐
6	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
7	Was **sample volume** received adequate for analysis?	☒	☐	☐
8	Are samples within specified holding times?	☒	☐	☐
9	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☒	☐	☐
	Cooler Temperature 5 °C Blank Temperature _____ °C			
10	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: _____			
11	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
12	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
13	**Tubes:** Are the tubes capped and intact?	☒	☐	☐
	Do they contain moisture?	☐	☒	☐
14	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0903144-001.01	Silica Gel DNPH Tube					
P0903144-002.01	Silica Gel DNPH Tube					
P0903144-003.01	Silica Gel DNPH Tube					
P0903144-004.01	Silica Gel DNPH Tube					
P0903144-005.01	Silica Gel DNPH Tube					
P0903144-006.01	Silica Gel DNPH Tube					

Explain any discrepancies: (include lab sample ID numbers):

Chain of Custody is missing time collected

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12); RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Environmental Health & Engineering, Inc. Work order: P0903144

Project: 16512

Sample(s) received on: 09/04/09 Date opened: 09/04/09 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0903144-007.01	Silica Gel DNPH Tube					

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

RESULTS OF ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102708**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-001

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15/09
Desorption Volume: 1.0 ml
Volume Sampled: 102.4 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	**Formaldehyde**	**7,000**	**69**	0.98	**56**	0.80	
75-07-0	**Acetaldehyde**	**4,200**	**41**	0.98	**23**	0.54	
123-38-6	**Propionaldehyde**	**660**	**6.4**	0.98	**2.7**	0.41	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.98	ND	0.34	
123-72-8	**Butyraldehyde**	**580**	**5.7**	0.98	**1.9**	0.33	
100-52-7	**Benzaldehyde**	**930**	**9.0**	0.98	**2.1**	0.23	
590-86-3	**Isovaleraldehyde**	**270**	**2.7**	0.98	**0.76**	0.28	
110-62-3	**Valeraldehyde**	**1,800**	**18**	0.98	**5.1**	0.28	
529-20-4	o-Tolualdehyde	< 100	ND	0.98	ND	0.20	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	2.0	ND	0.40	
66-25-1	**n-Hexaldehyde**	**7,400**	**72**	0.98	**18**	0.24	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	0.98	ND	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.

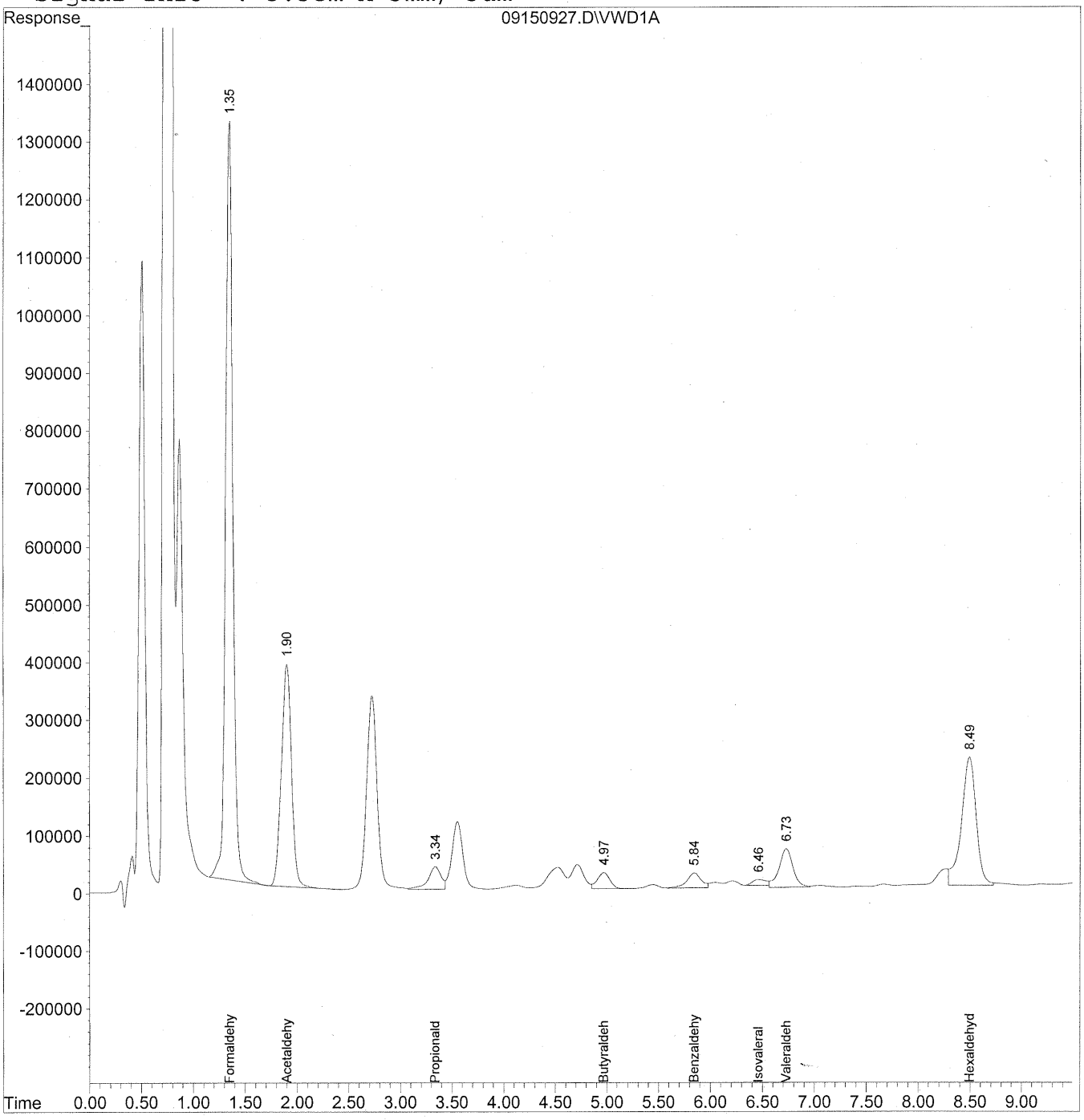
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150927.D Vial: 122
Acq On : 15-Sep-2009, 13:33 Operator: MD
Sample : P0903144-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:15 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



9

Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150927.D Vial: 122
Acq On : 15-Sep-2009, 13:33 Operator: MD
Sample : P0903144-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:15 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

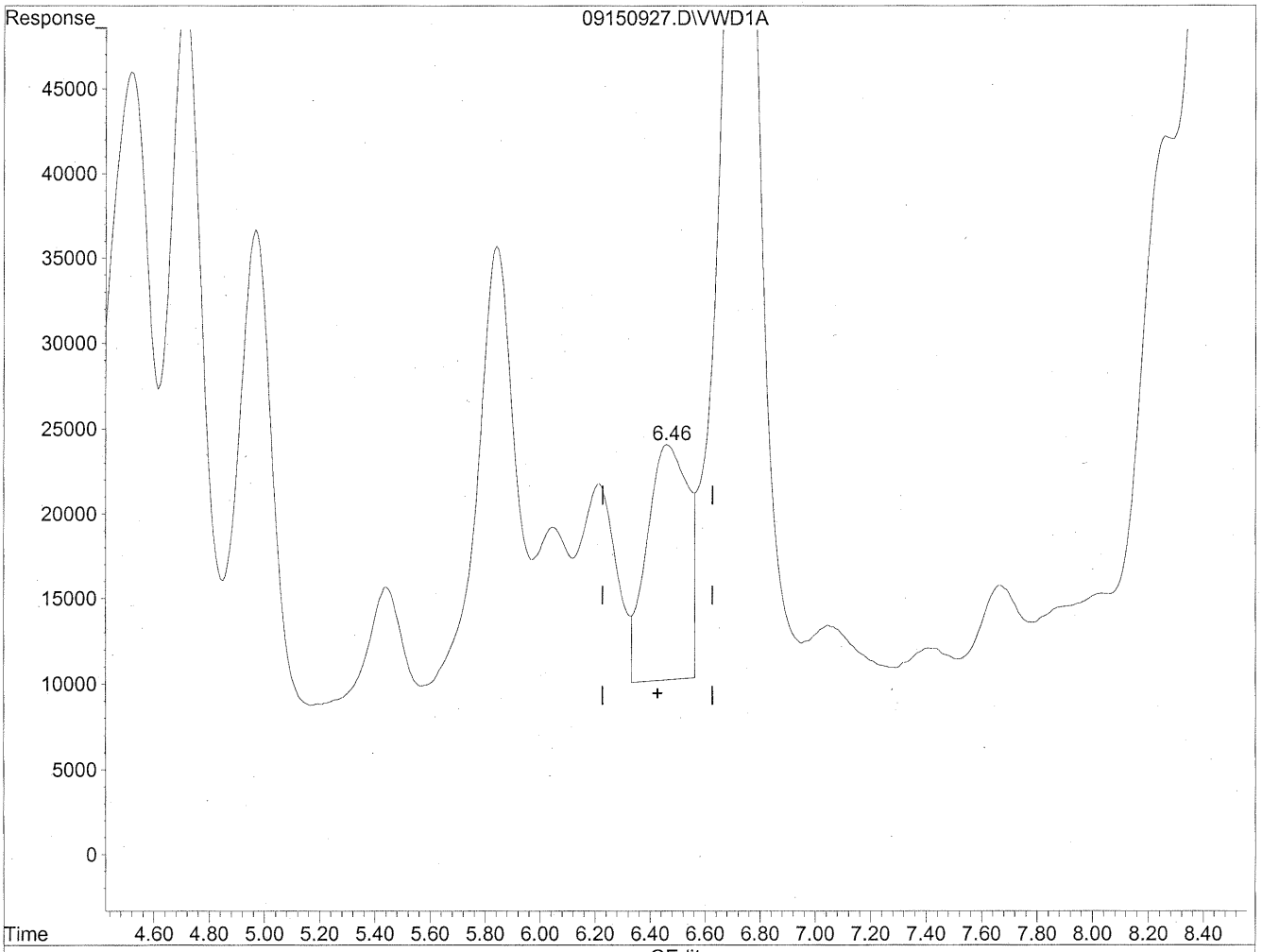
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	62960560	7046.169	ng/ml
2)	Acetaldehyde	1.90	25692296	3952.176	ng/ml
3)	Propionaldehyde	3.34	3428605	659.623	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	4.97	2359290	582.143	ng/ml
6)	Benzaldehyde	5.85	2526424	925.980	ng/ml
7)	Isovaleraldehyde	6.46	941523	273.556	ng/mlm
8)	Valeraldehyde	6.73	6283981	1848.426	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.49	21834063	7374.567	ng/mlm
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150927.D Vial: 122
Acq On : 15-Sep-2009, 13:33 Operator: MD
Sample : P0903144-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.46min 419.604ng/ml

response 1444188

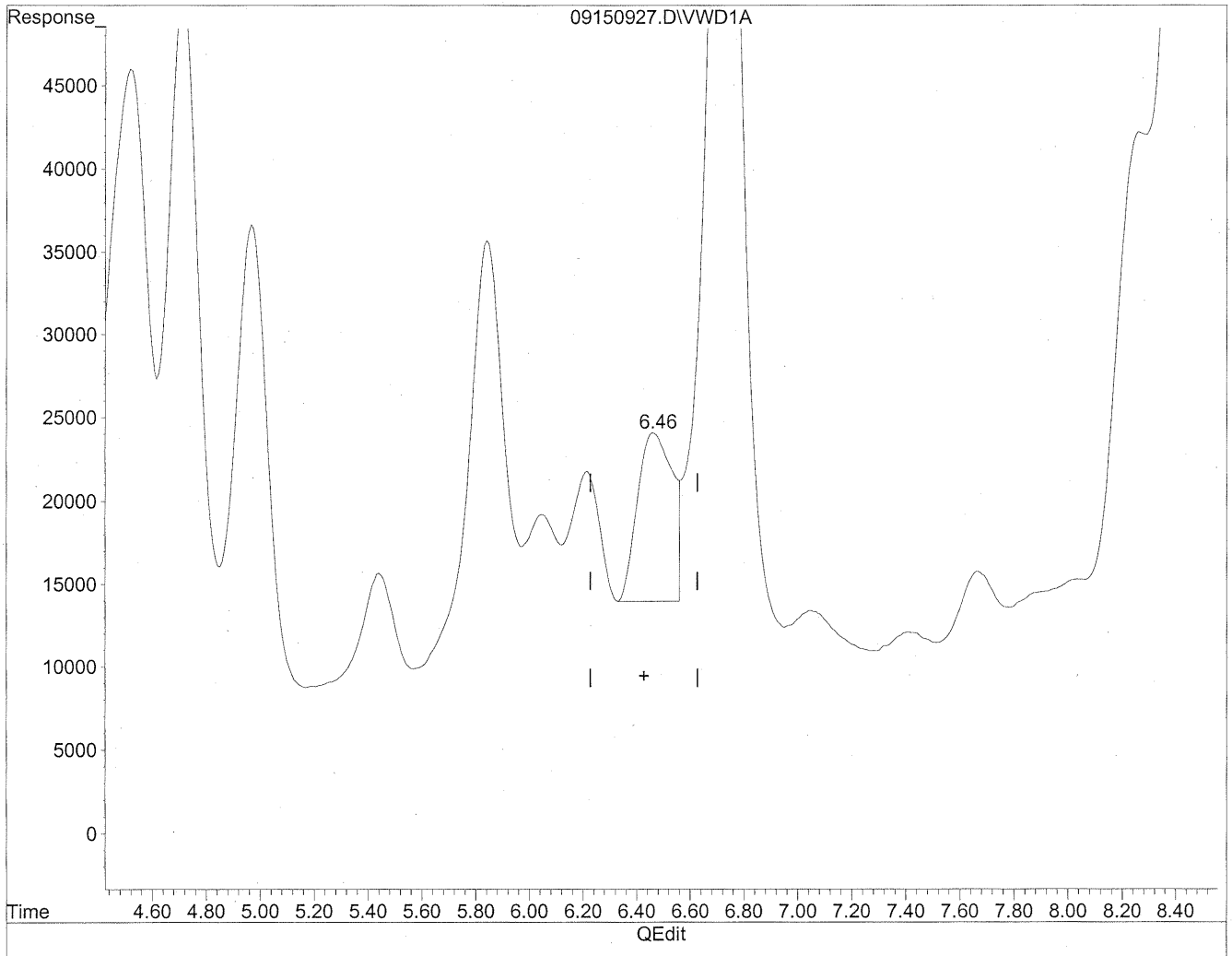
(+) = Expected Retention Time

09150927.D TO110909.M Fri Sep 18 11:14:39 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150927.D Vial: 122
Acq On : 15-Sep-2009, 13:33 Operator: MD
Sample : P0903144-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.46min 273.556ng/ml m

response 941523

9/18/09

9/18/09

12

(+) = Expected Retention Time

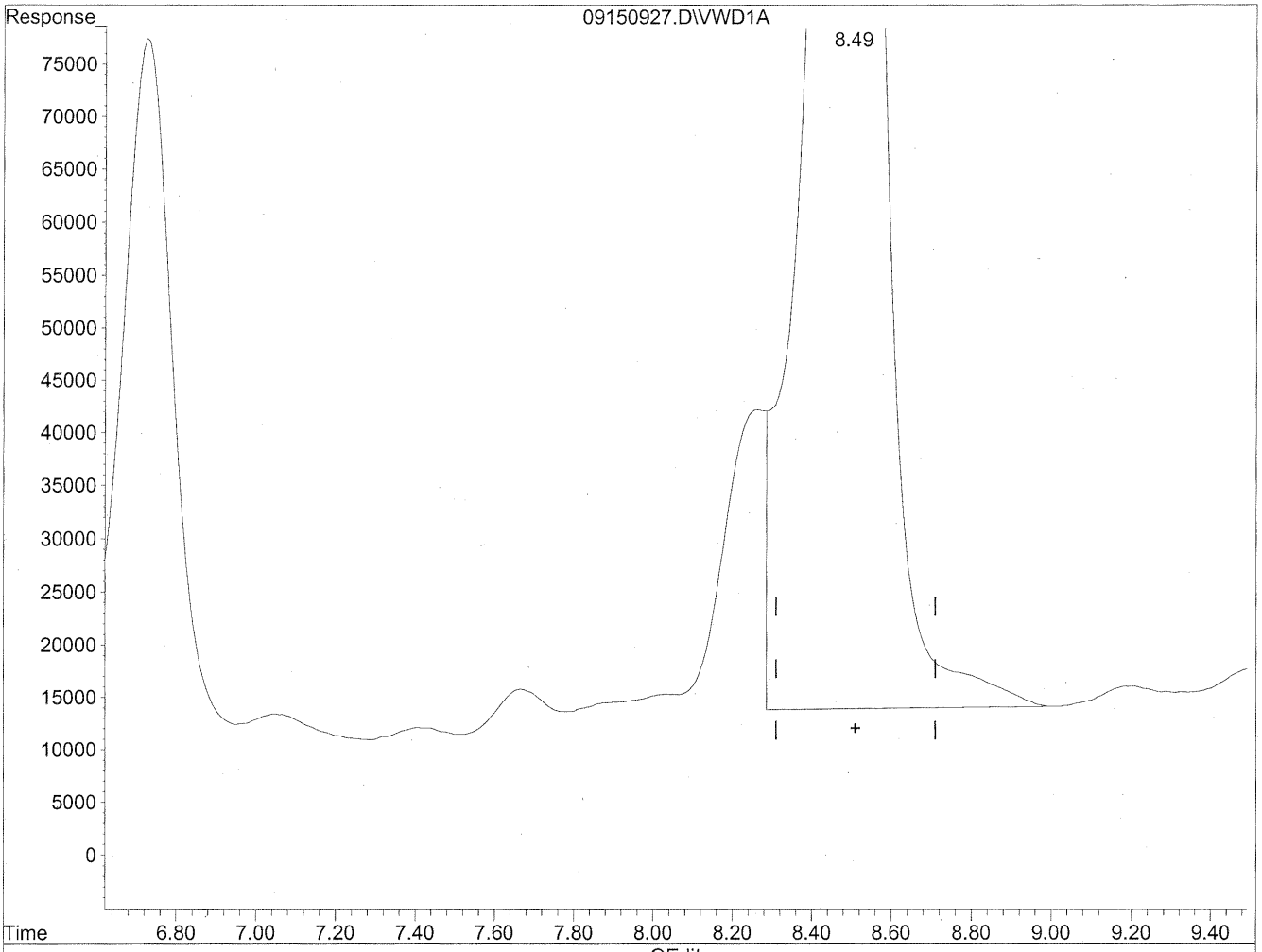
09150927.D TO110909.M Fri Sep 18 11:14:49 2009

12

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150927.D Vial: 122
Acq On : 15-Sep-2009, 13:33 Operator: MD
Sample : P0903144-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.49min 7516.391ng/ml

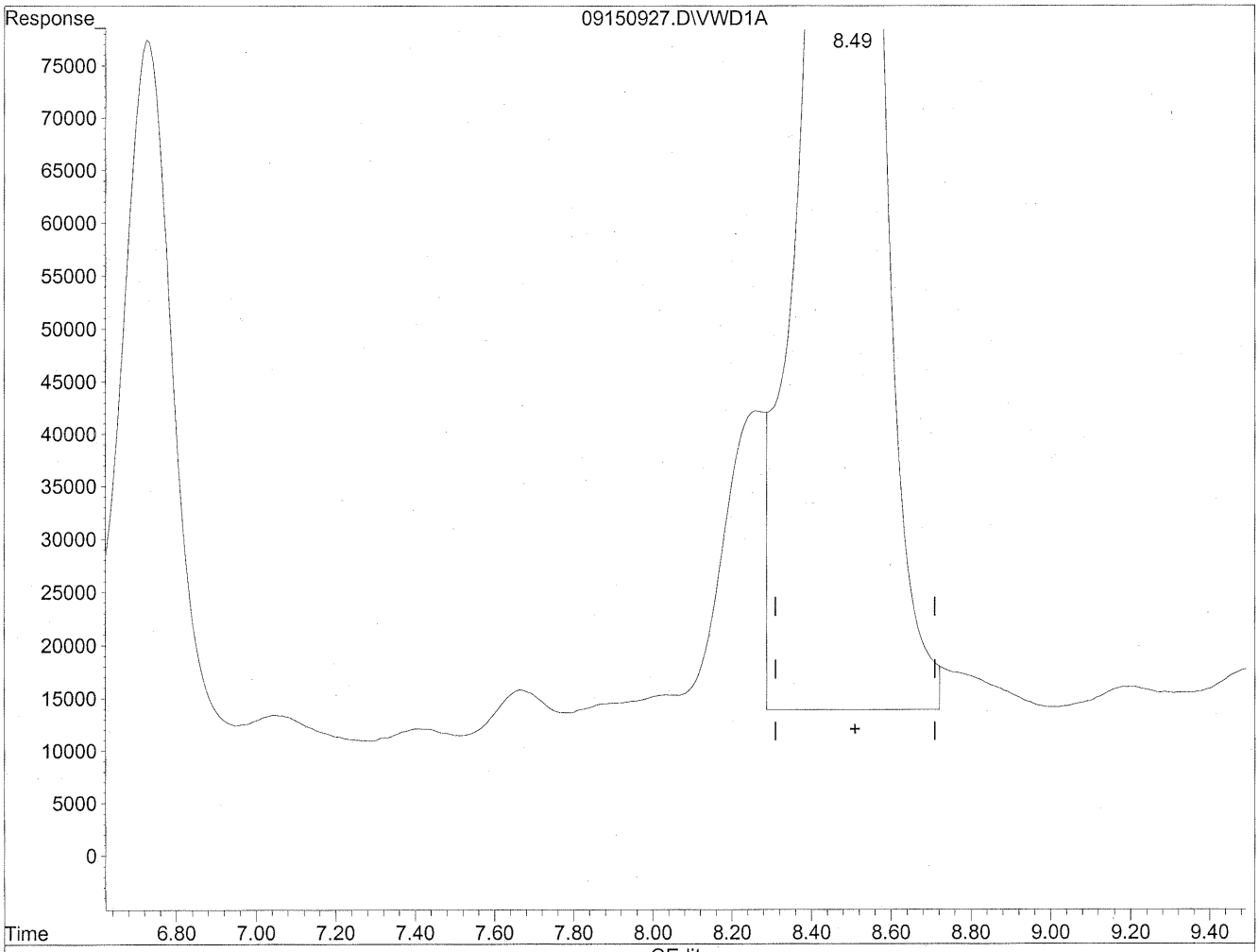
response 22253965

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150927.D Vial: 122
Acq On : 15-Sep-2009, 13:33 Operator: MD
Sample : P0903144-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.49min 7374.567ng/ml m

response 21834063

9/18/09 SH

HC 9/18/09

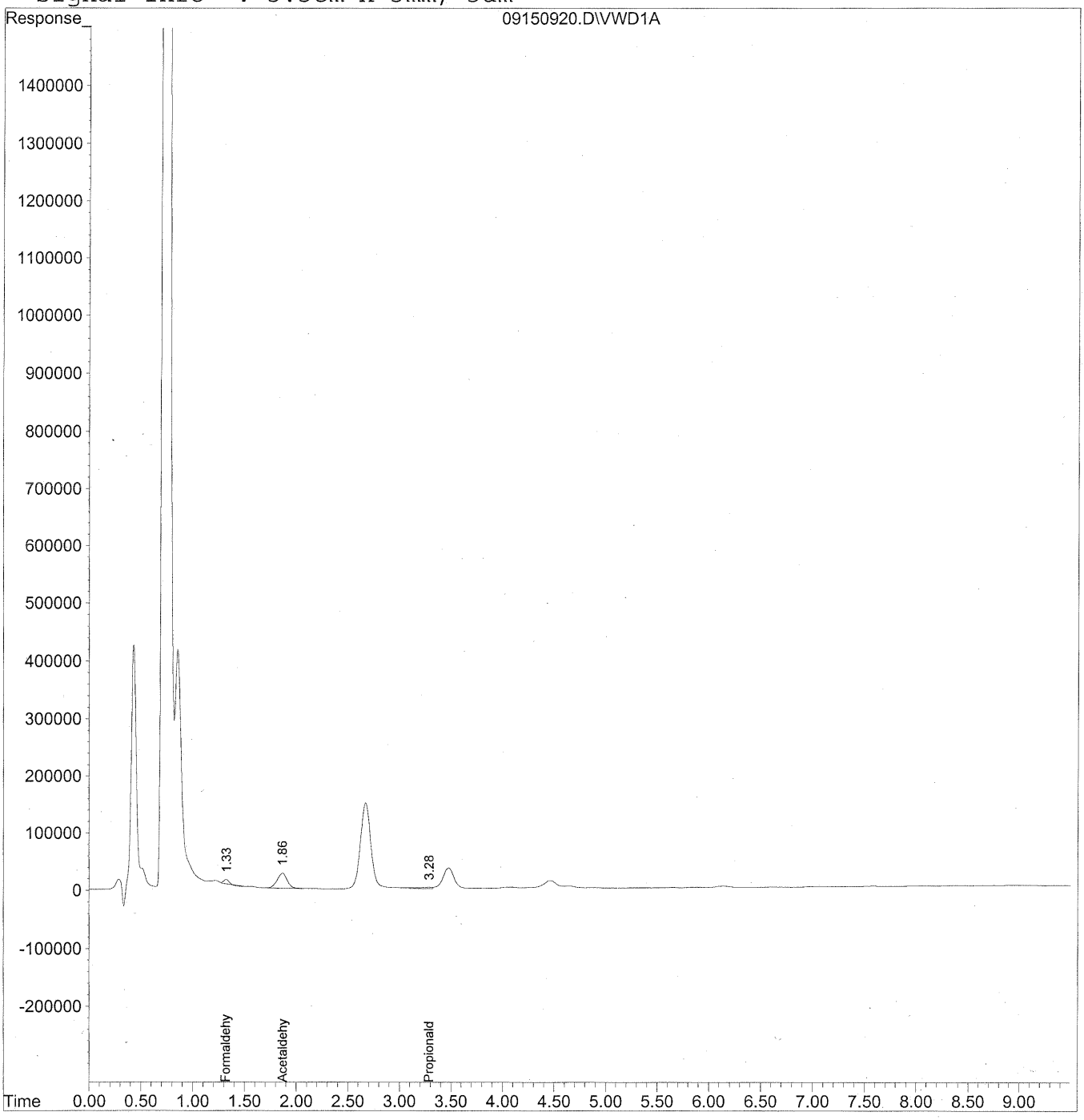
(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150920.D Vial: 115
Acq On : 15-Sep-2009, 12:08 Operator: MD
Sample : P0903144-001 back 1.0ml Inst : VWD
Misc : EH & E P0903144 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:11 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



15

Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150920.D Vial: 115
Acq On : 15-Sep-2009, 12:08 Operator: MD
Sample : P0903144-001 back 1.0ml Inst : VWD
Misc : EH & E P0903144 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:11 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

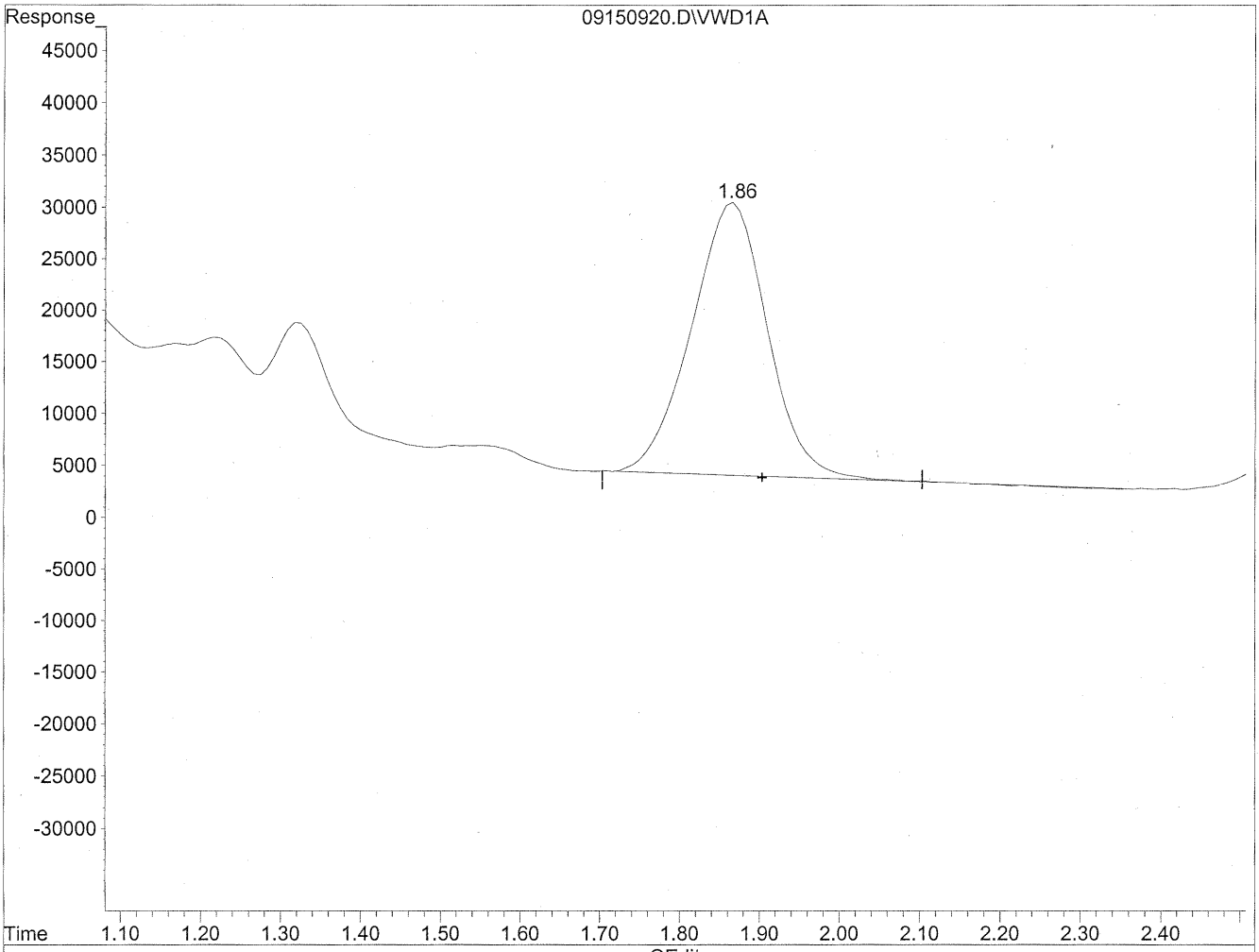
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.32	246308	27.565	ng/ml
2)	Acetaldehyde	1.86	1770662	272.376	ng/mlm
3)	Propionaldehyde	3.29	210636	40.524	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150920.D Vial: 115
Acq On : 15-Sep-2009, 12:08 Operator: MD
Sample : P0903144-001 back 1.0ml Inst : VWD
Misc : EH & E P0903144 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:10 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(2) Acetaldehyde

1.87min 267.762ng/ml

response 1740666

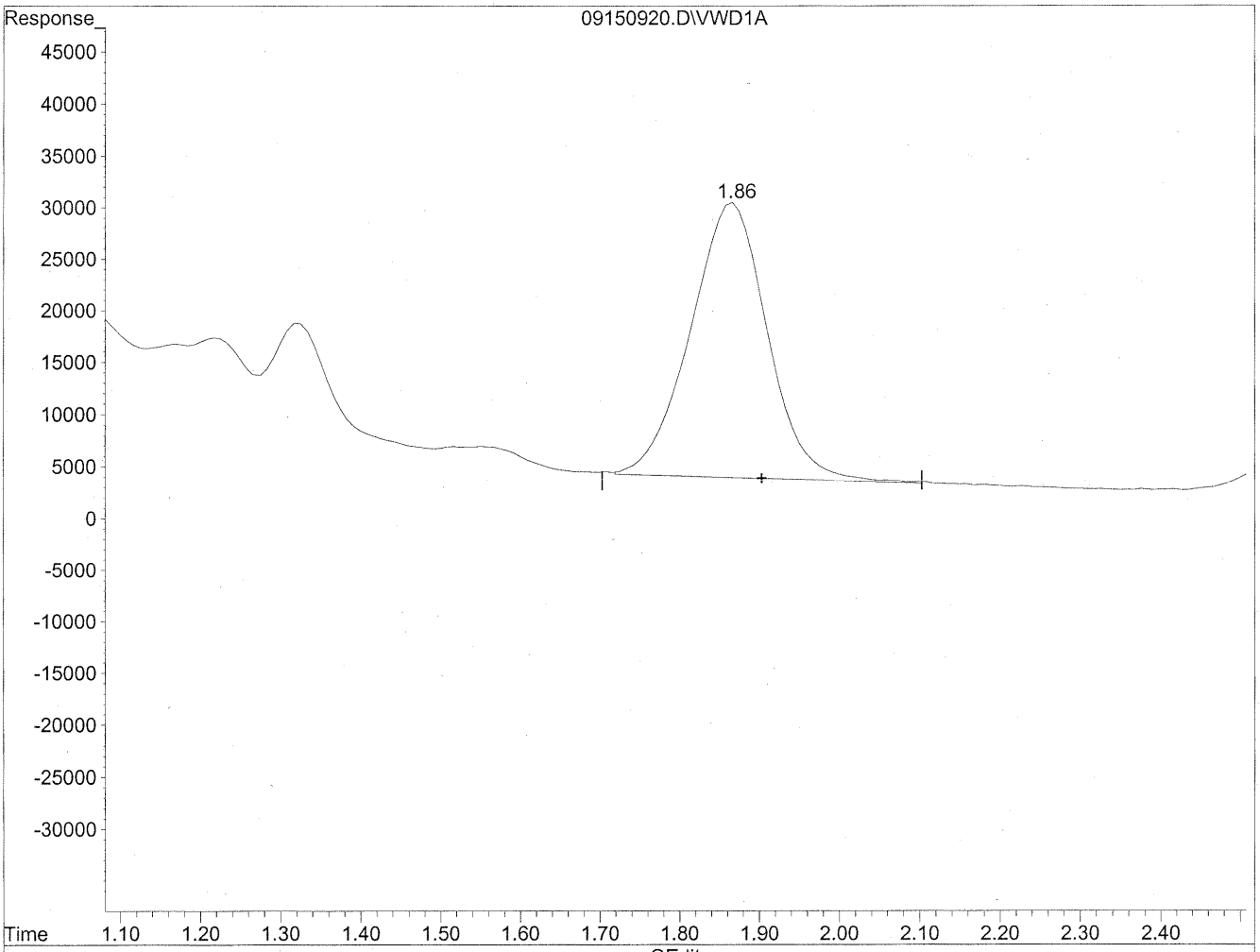
(+) = Expected Retention Time

09150920.D TO110909.M Fri Sep 18 11:11:09 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150920.D Vial: 115
Acq On : 15-Sep-2009, 12:08 Operator: MD
Sample : P0903144-001 back 1.0ml Inst : VWD
Misc : EH & E P0903143 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:10 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(2) Acetaldehyde

1.86min 272.376ng/ml m

response 1770662

9/18/09 TL

HL 9/18/09

18

(+) = Expected Retention Time

09150920.D TO110909.M Fri Sep 18 11:11:15 2009

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102709**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-002

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15/09
Desorption Volume: 1.0 ml
Volume Sampled: 99.8 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	**Formaldehyde**	**7,000**	**70**	1.0	**57**	0.82	
75-07-0	**Acetaldehyde**	**4,200**	**42**	1.0	**23**	0.56	
123-38-6	**Propionaldehyde**	**670**	**6.7**	1.0	**2.8**	0.42	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.0	ND	0.35	
123-72-8	**Butyraldehyde**	**570**	**5.7**	1.0	**1.9**	0.34	
100-52-7	**Benzaldehyde**	**920**	**9.3**	1.0	**2.1**	0.23	
590-86-3	**Isovaleraldehyde**	**270**	**2.7**	1.0	**0.76**	0.28	
110-62-3	**Valeraldehyde**	**1,900**	**19**	1.0	**5.3**	0.28	
529-20-4	o-Tolualdehyde	< 100	ND	1.0	ND	0.20	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	2.0	ND	0.41	
66-25-1	**n-Hexaldehyde**	**7,400**	**74**	1.0	**18**	0.24	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.0	ND	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.

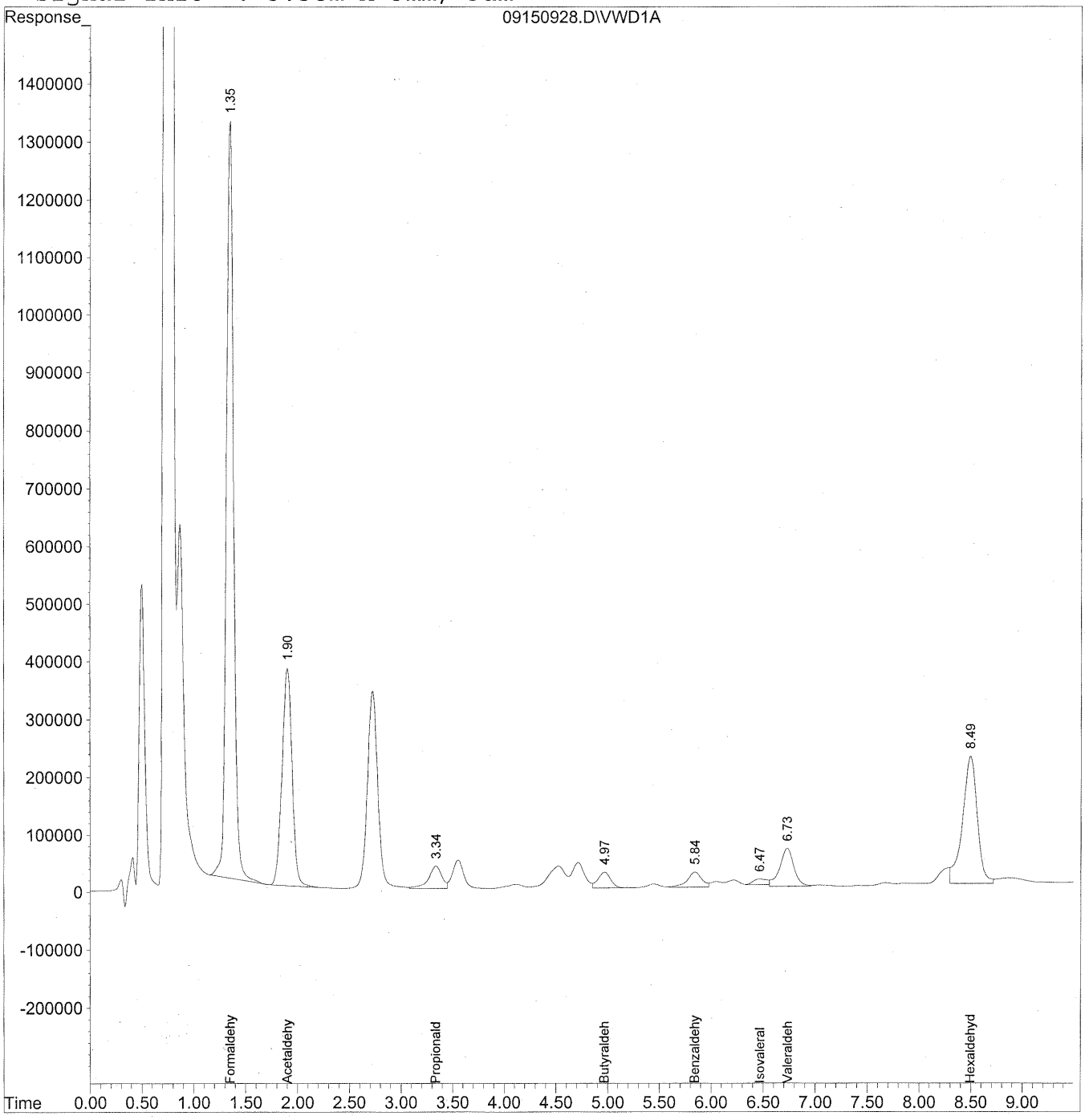
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:17 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



20

Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:17 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

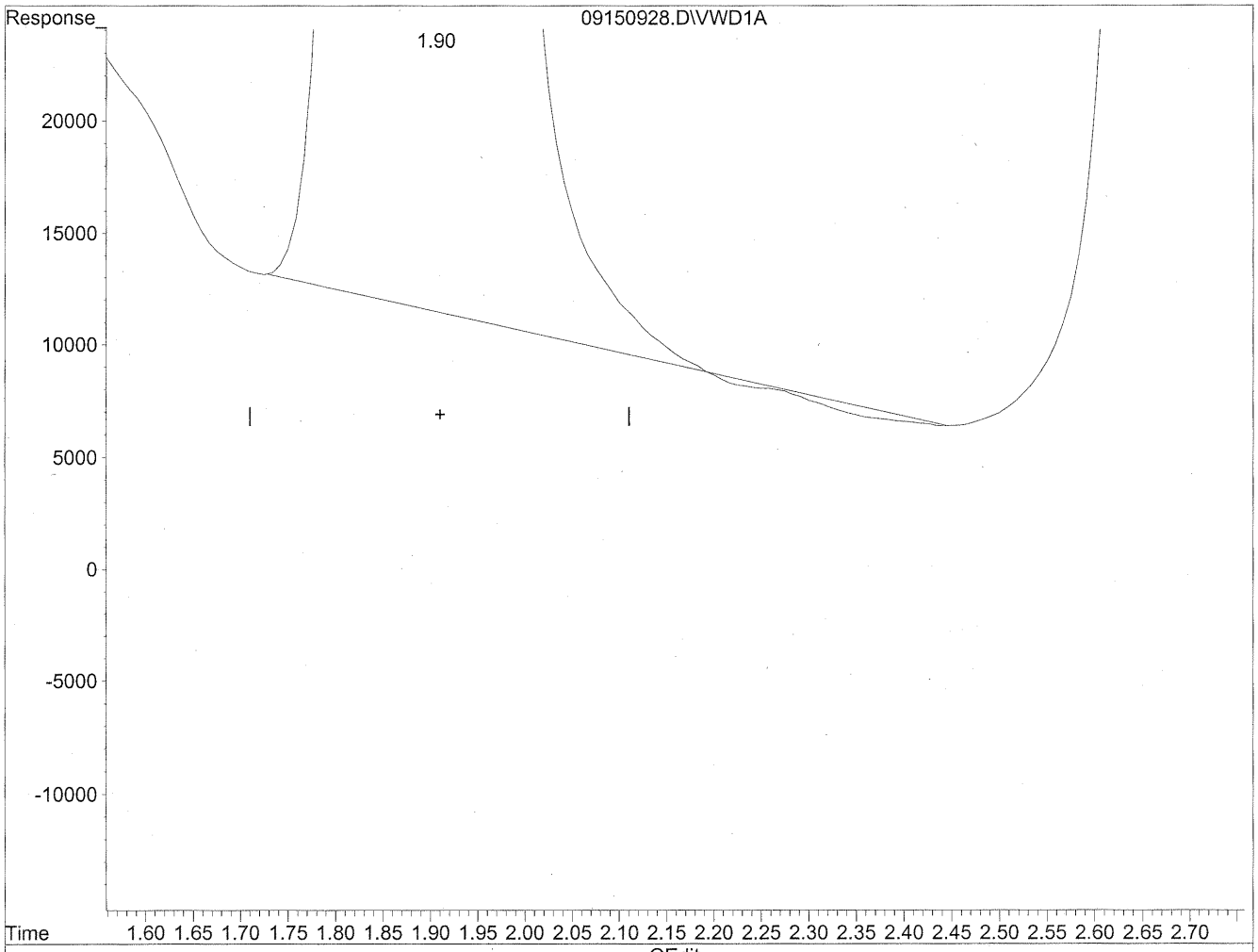
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	62544065	6999.558	ng/ml
2)	Acetaldehyde	1.90	25199257	3876.333	ng/mlm
3)	Propionaldehyde	3.34	3479218	669.361	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	4.97	2315353	571.302	ng/ml
6)	Benzaldehyde	5.85	2522336	924.482	ng/ml
7)	Isovaleraldehyde	6.47	925026	268.763	ng/mlm
8)	Valeraldehyde	6.73	6332124	1862.587	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.49	21926417	7405.760	ng/mlm
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/mld

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(2) Acetaldehyde

1.90min 3866.038ng/ml

response 25132327

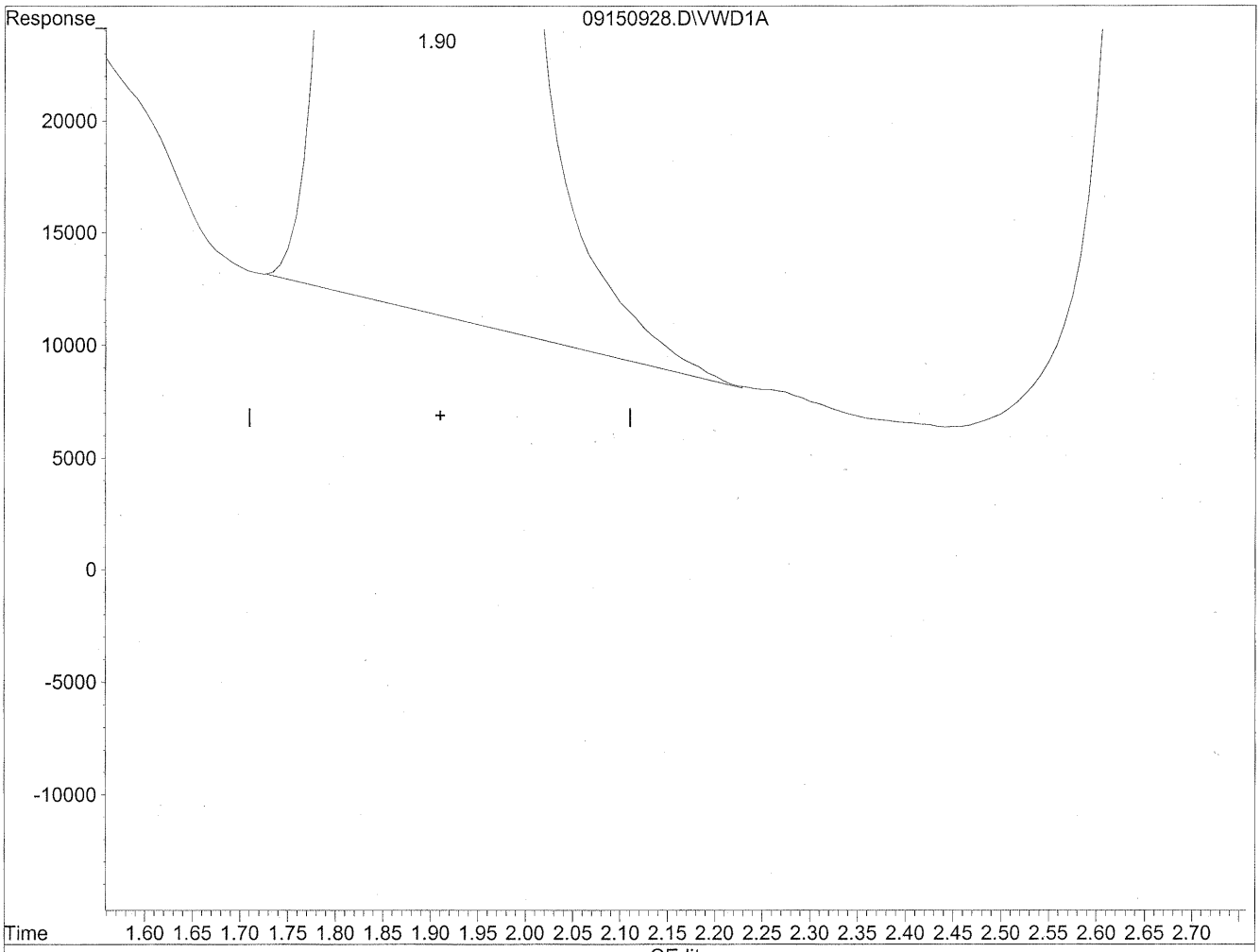
(+) = Expected Retention Time

09150928.D TO110909.M Fri Sep 18 11:15:39 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(2) Acetaldehyde

1.90min 3876.333ng/ml m

response 25199257

9/18/09

9/18/09

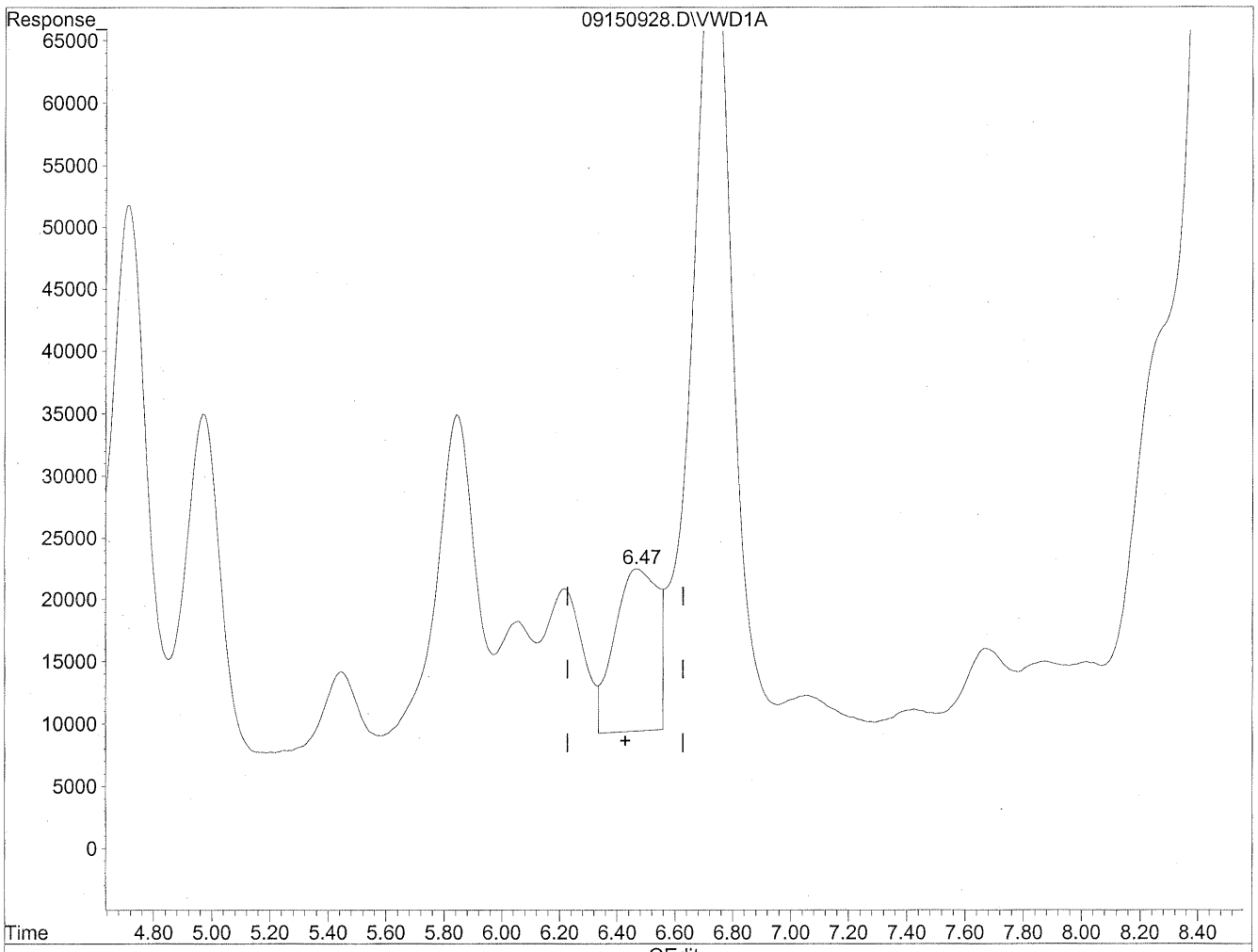
(+) = Expected Retention Time

09150928.D TO110909.M Fri Sep 18 11:15:44 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.47min 391.244ng/ml

response 1346580

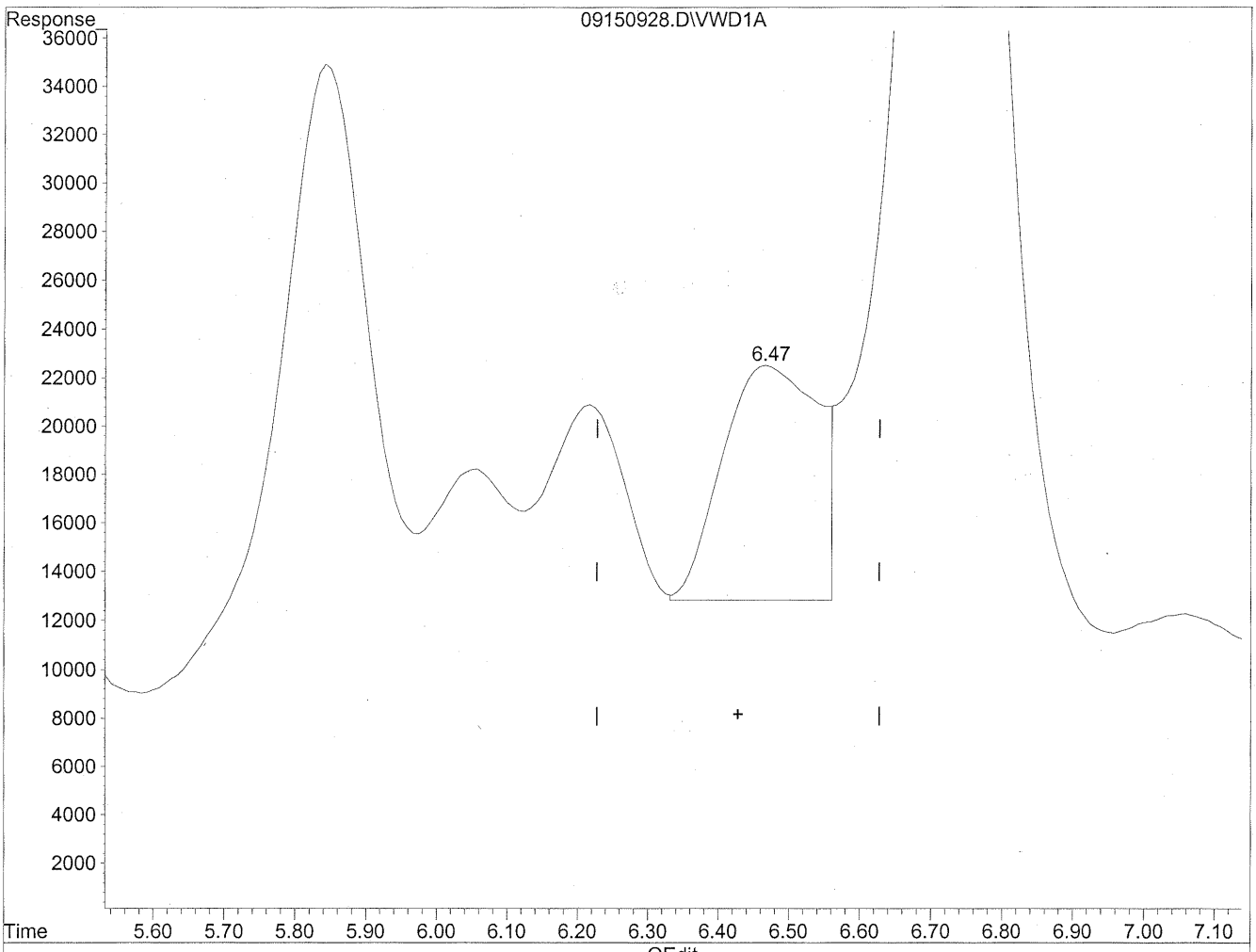
(+) = Expected Retention Time

09150928.D TO110909.M Fri Sep 18 11:16:15 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(7) Isovaleraldehyde

6.47min 268.763ng/ml m

response 925026

9/18/09 BC

9/18/09

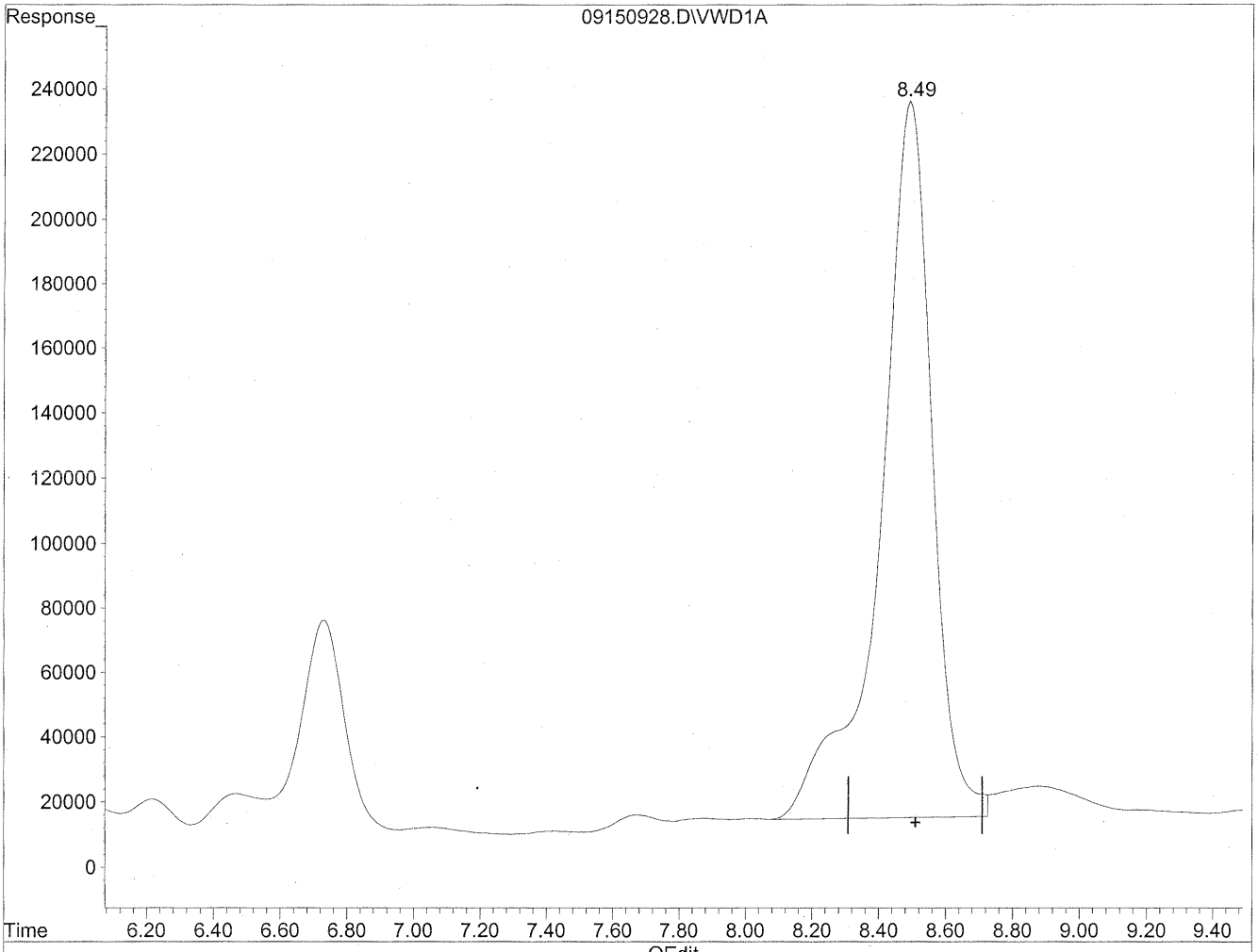
(+) = Expected Retention Time

09150928.D TO110909.M Fri Sep 18 11:16:24 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.50min 8006.777ng/ml

response 23705863

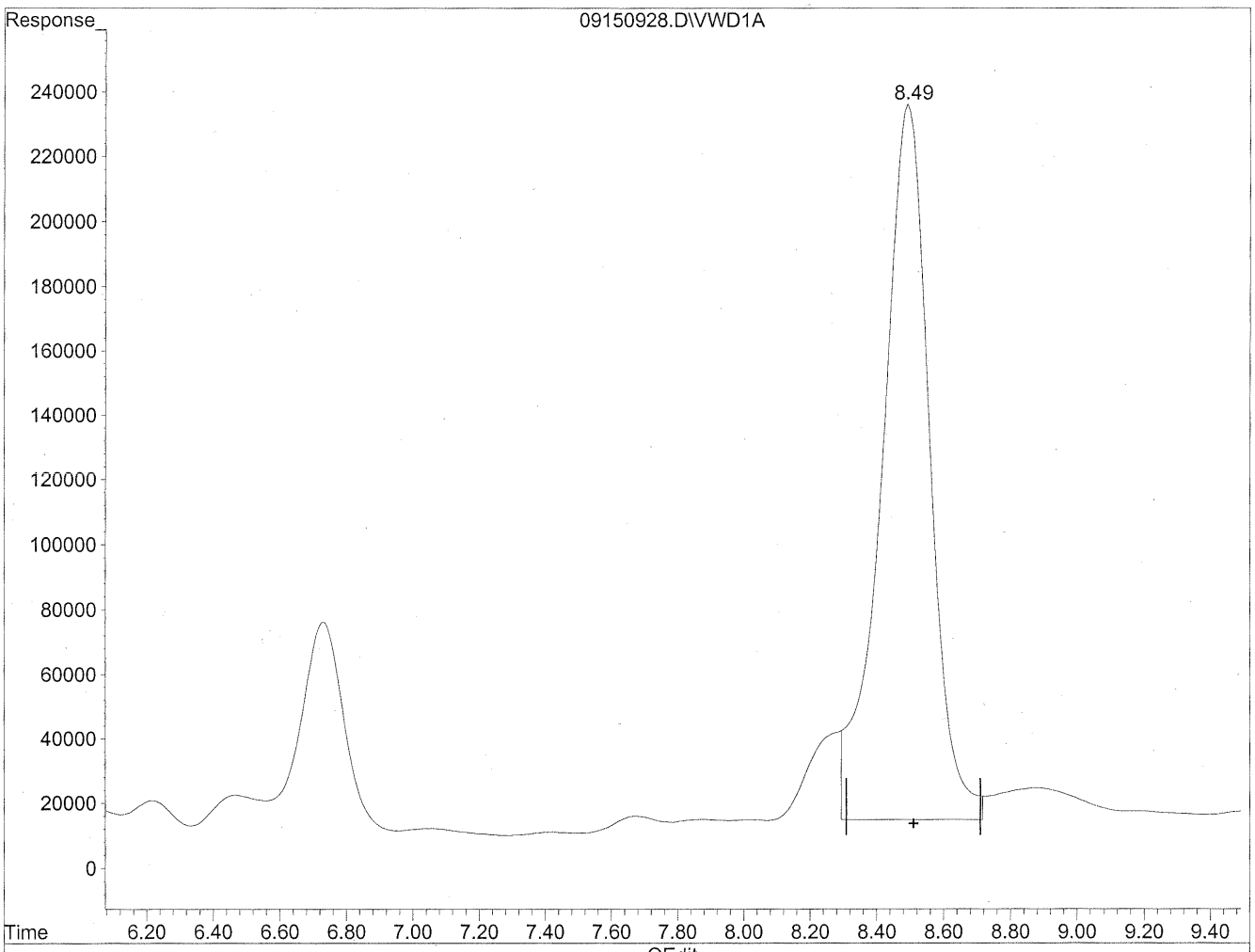
(+) = Expected Retention Time

09150928.D TO110909.M Fri Sep 18 11:16:42 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.49min 7405.760ng/ml m

response 21926417

9/18/09

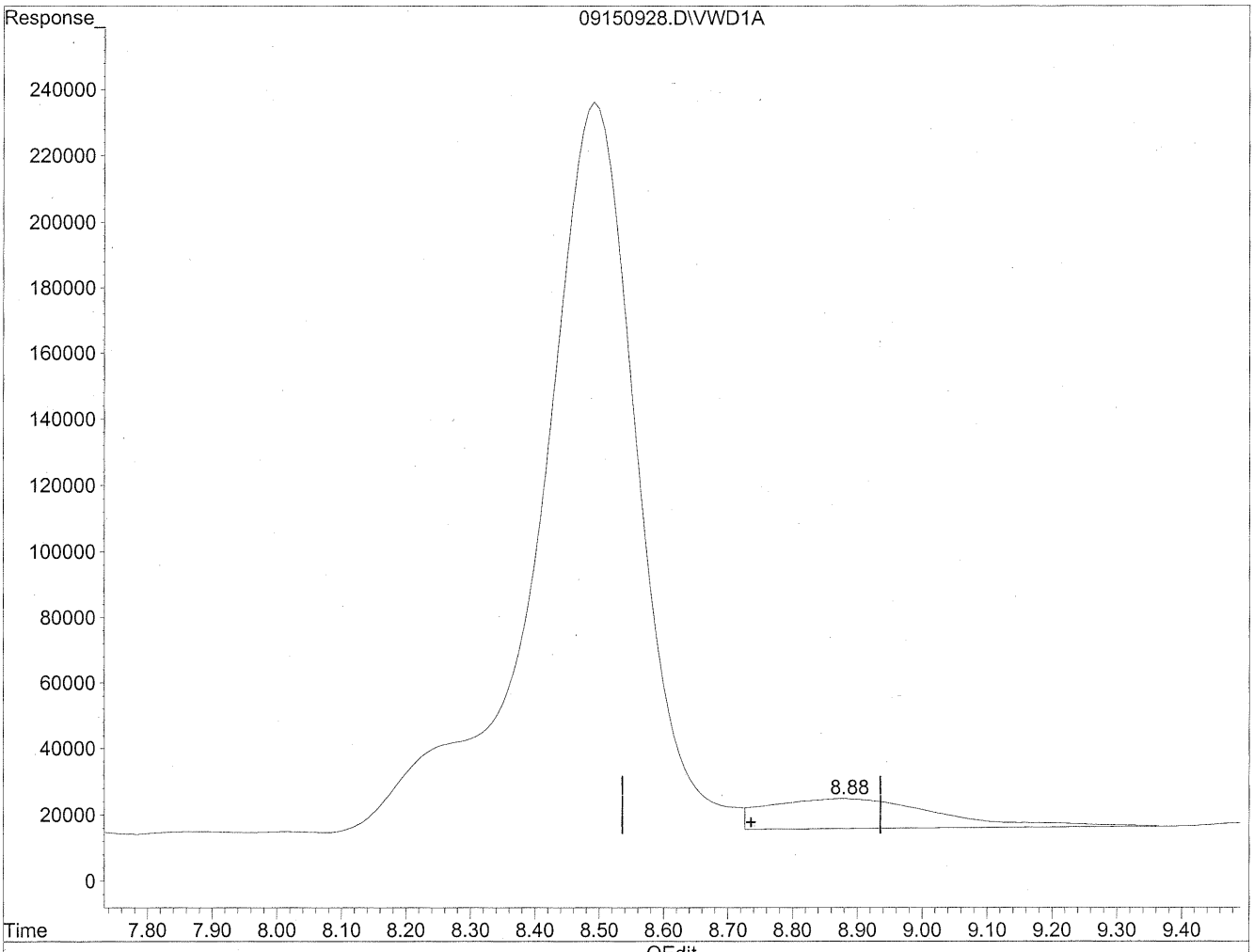
9/18/09

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

8.88min 837.931ng/ml

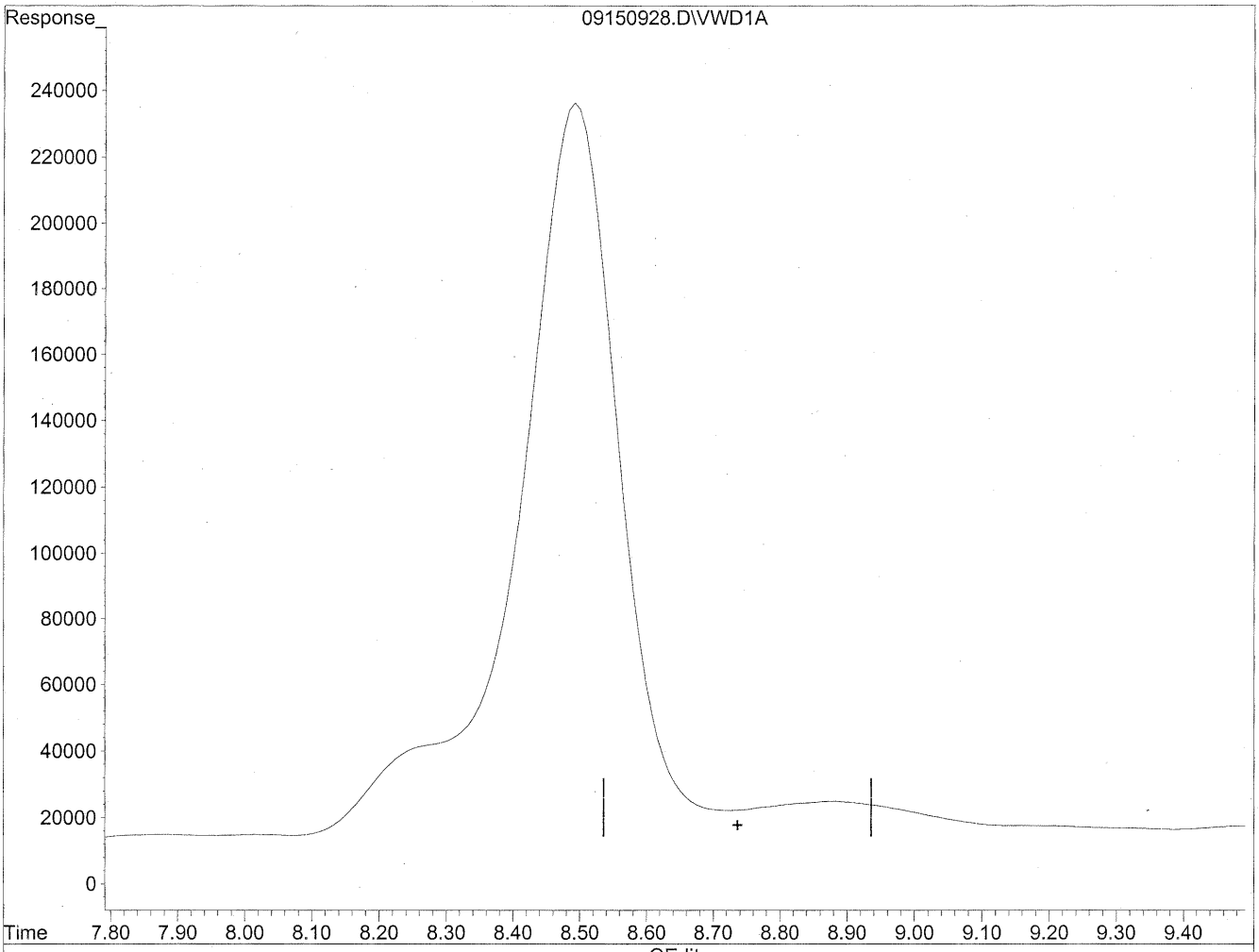
response 1672084

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150928.D Vial: 123
Acq On : 15-Sep-2009, 13:45 Operator: MD
Sample : P0903144-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

0.00min 0.000ng/ml d

response 0

mp 9/18/09

mp, RT tic 9/18/09

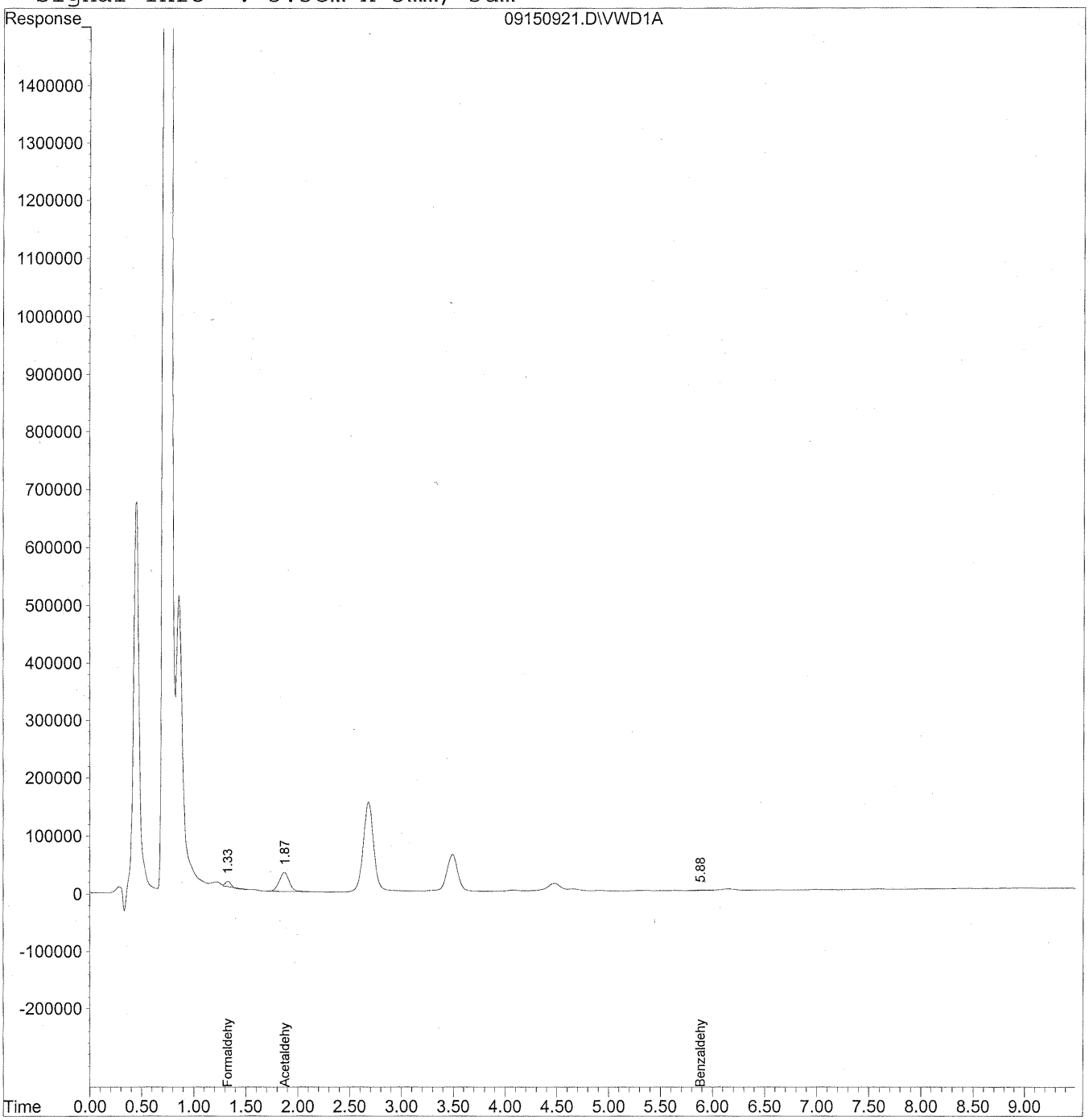
(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150921.D Vial: 116
Acq On : 15-Sep-2009, 12:21 Operator: MD
Sample : P0903144-002 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:11 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150921.D Vial: 116
Acq On : 15-Sep-2009, 12:21 Operator: MD
Sample : P0903144-002 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:11 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

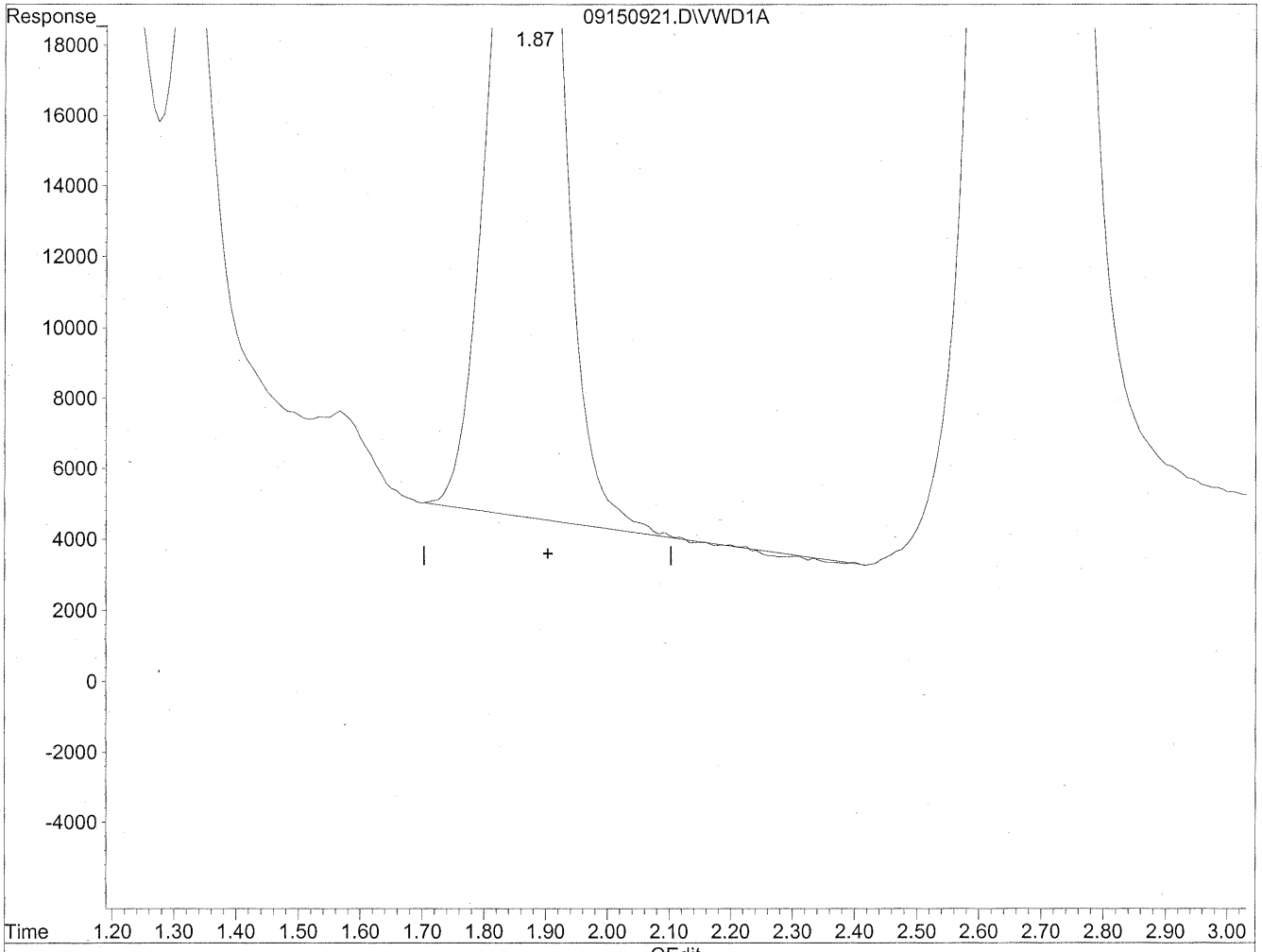
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.33	273408	30.598	ng/ml
2)	Acetaldehyde	1.87	2173858	334.399	ng/mlm
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	5.89	84412	30.939	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150921.D Vial: 116
Acq On : 15-Sep-2009, 12:21 Operator: MD
Sample : P0903144-002 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:11 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(2) Acetaldehyde

1.87min 331.851ng/ml

response 2157295

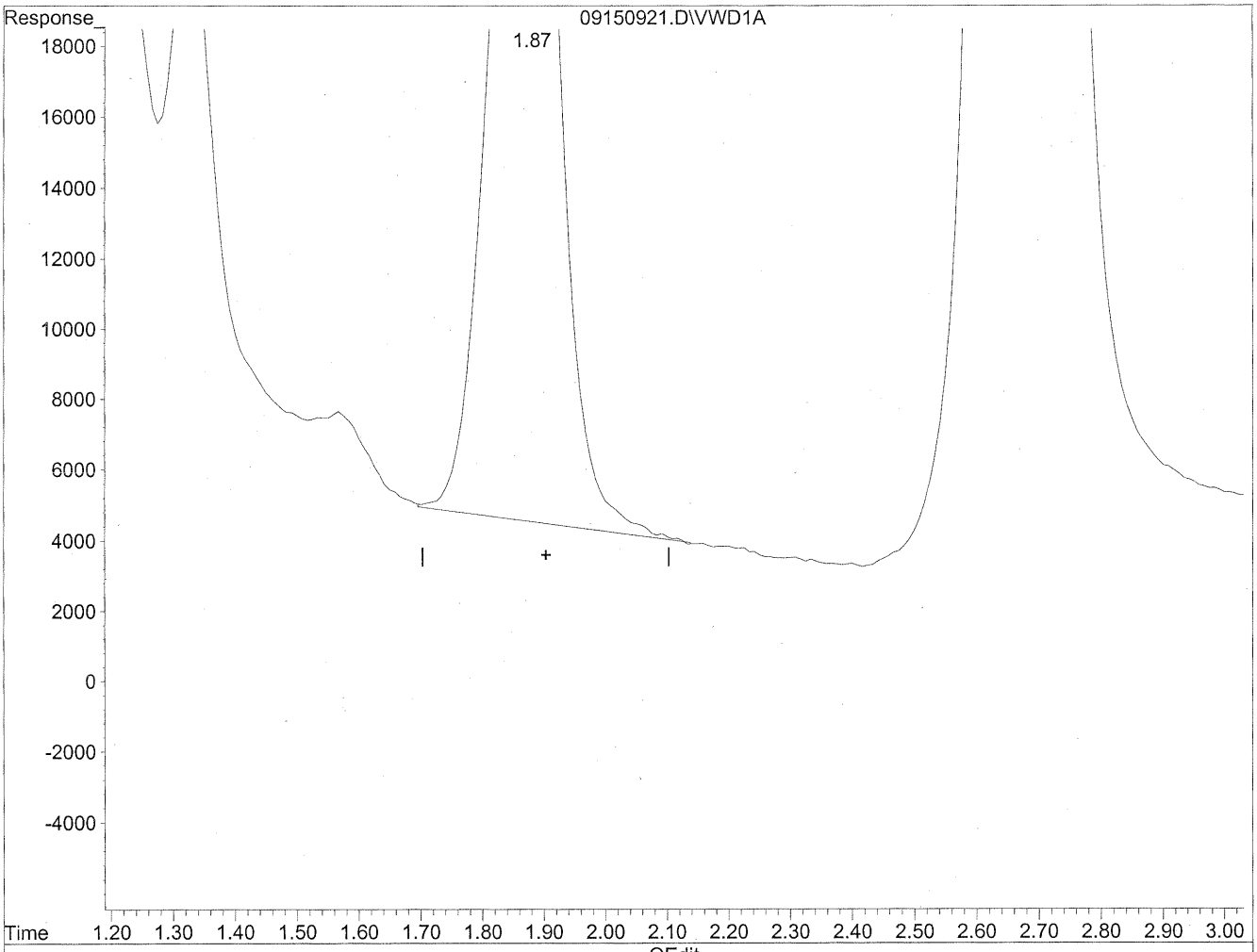
(+) = Expected Retention Time

09150921.D TO110909.M Fri Sep 18 11:11:39 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150921.D Vial: 116
Acq On : 15-Sep-2009, 12:21 Operator: MD
Sample : P0903144-002 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:11 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(2) Acetaldehyde

1.87min 334.399ng/ml m

response 2173858

9/18/09

tc 9/18/09

(+) = Expected Retention Time

09150921.D TO110909.M Fri Sep 18 11:11:46 2009

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102710**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-003

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15 - 9/16/09
Desorption Volume: 1.0 ml
Volume Sampled: 103.8 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	**Formaldehyde**	**11,000**	**100**	0.96	**85**	0.78	
75-07-0	**Acetaldehyde**	**3,800**	**37**	0.96	**21**	0.53	**BT**
123-38-6	**Propionaldehyde**	**570**	**5.5**	0.96	**2.3**	0.41	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.96	ND	0.34	
123-72-8	**Butyraldehyde**	**480**	**4.6**	0.96	**1.6**	0.33	
100-52-7	**Benzaldehyde**	**970**	**9.3**	0.96	**2.2**	0.22	
590-86-3	**Isovaleraldehyde**	**250**	**2.4**	0.96	**0.69**	0.27	
110-62-3	**Valeraldehyde**	**1,600**	**16**	0.96	**4.5**	0.27	
529-20-4	o-Tolualdehyde	< 100	ND	0.96	ND	0.20	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.9	ND	0.39	
66-25-1	**n-Hexaldehyde**	**6,500**	**62**	0.96	**15**	0.24	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	0.96	ND	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.
BT = Results indicated possible breakthrough; back section > 10% front section.

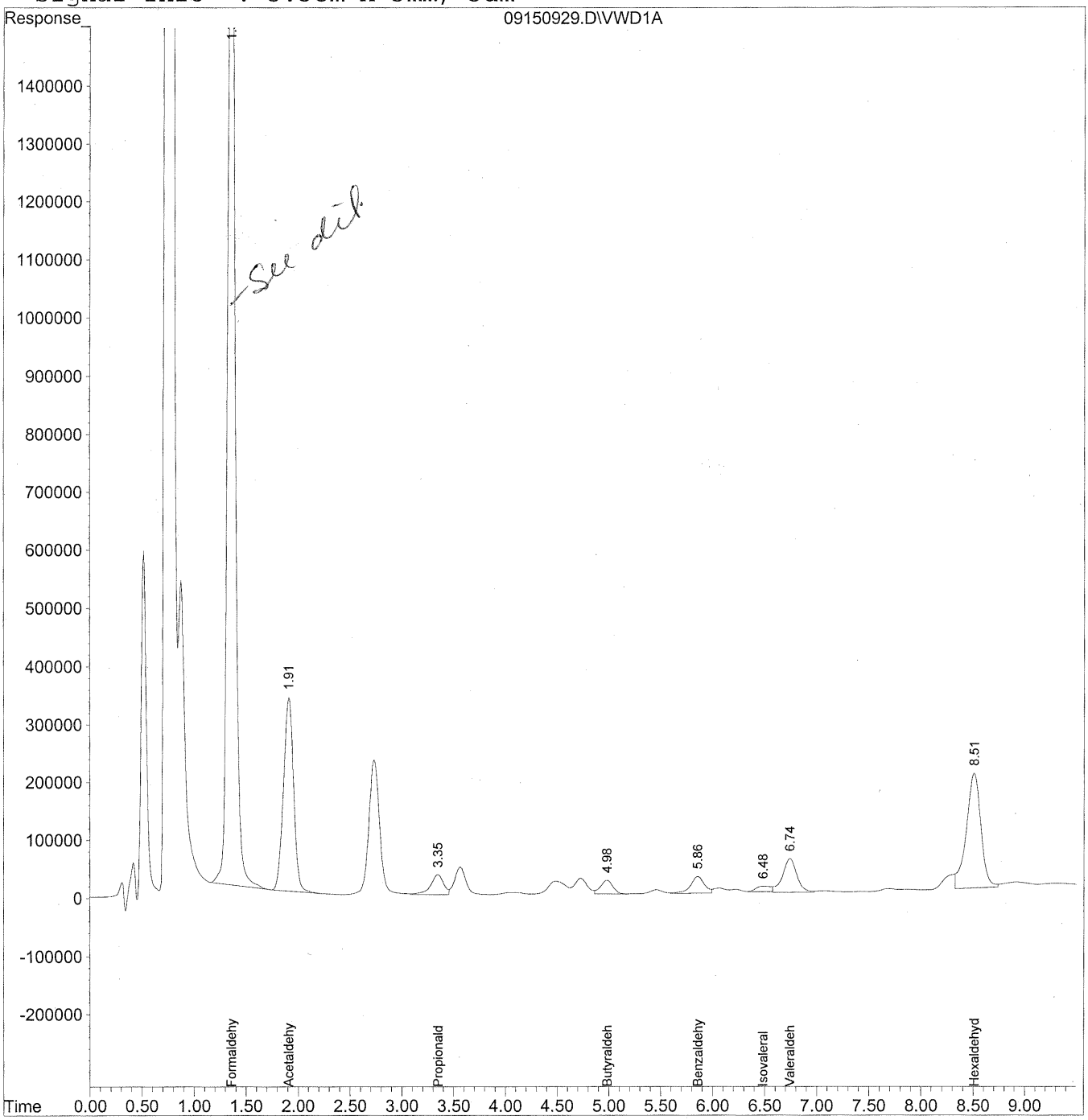
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:20 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:20 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

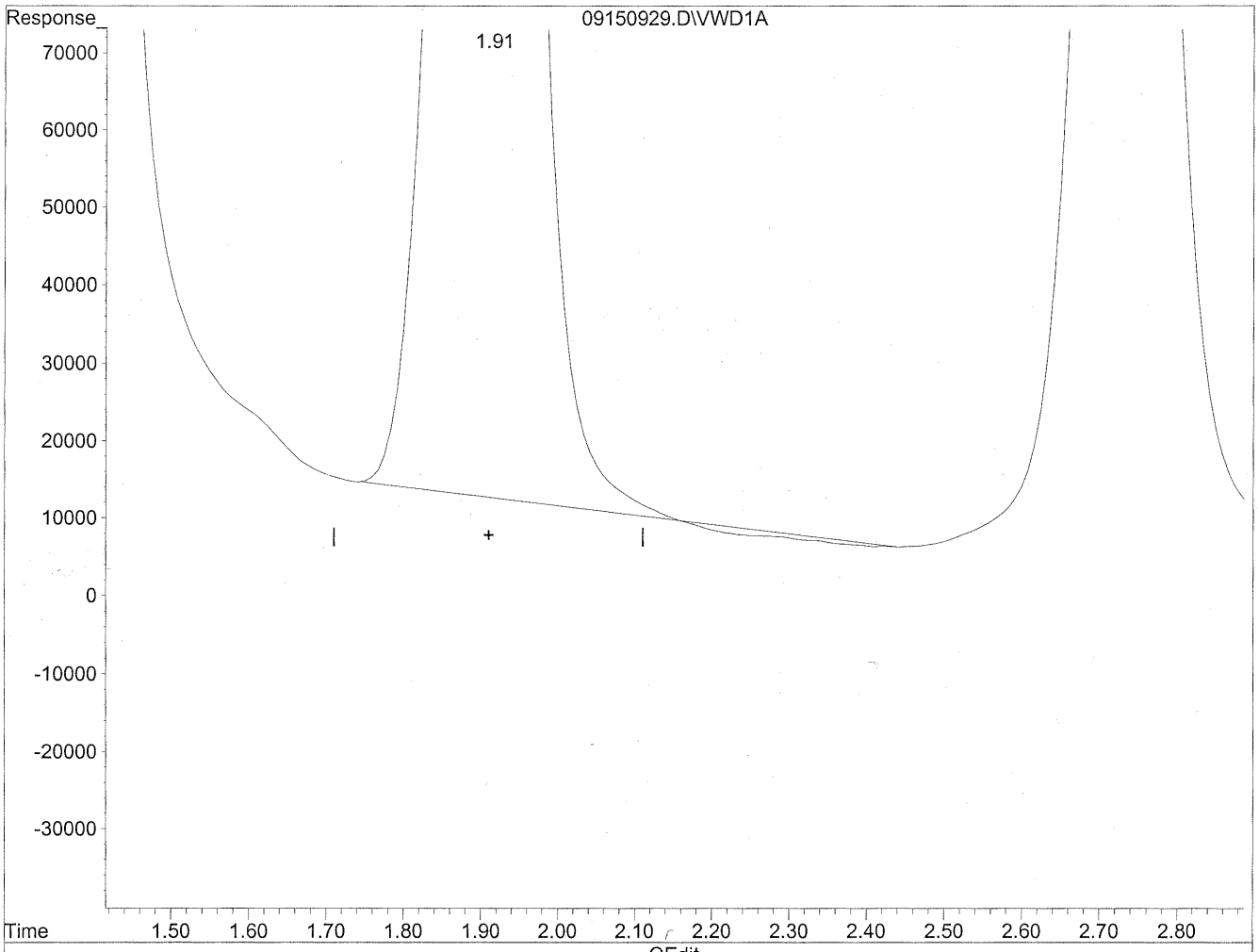
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.36	93389984	~~10451.649~~	~~ng/ml~~ ad
2)	Acetaldehyde	1.91	22198206	3414.690	ng/mlm
3)	Propionaldehyde	3.35	2985818	574.436	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	4.98	1949033	480.914	ng/ml
6)	Benzaldehyde	5.86	2647851	970.486	ng/ml
7)	Isovaleraldehyde	6.48	867591	252.076	ng/mlm
8)	Valeraldehyde	6.75	5557735	1634.801	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.51	19193949	6482.855	ng/mlm
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/mld

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(2) Acetaldehyde

1.91min 3380.330ng/ml

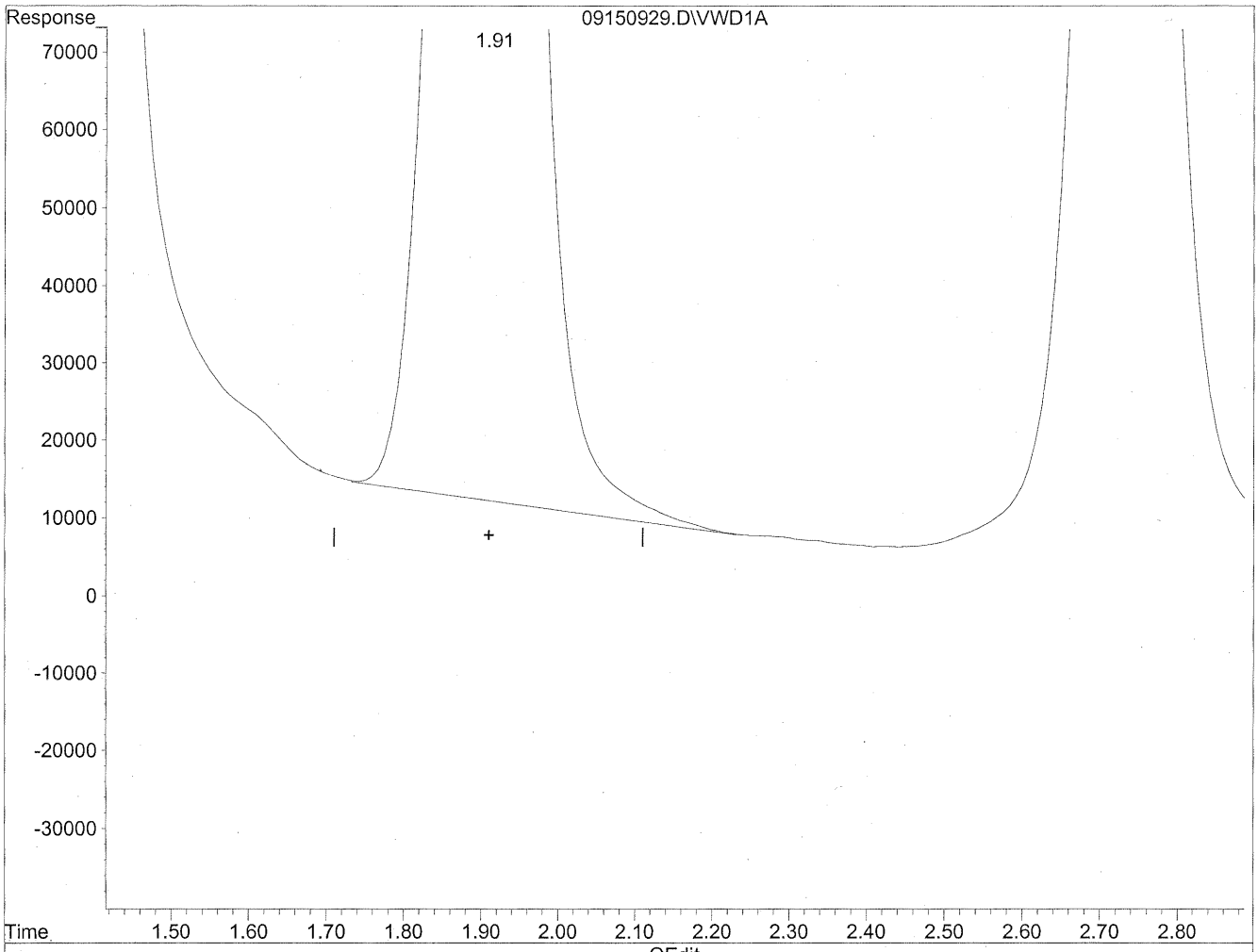
response 21974839

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(2) Acetaldehyde

1.91min 3414.690ng/ml m

response 22198206

9/18/09

9/18/09

12

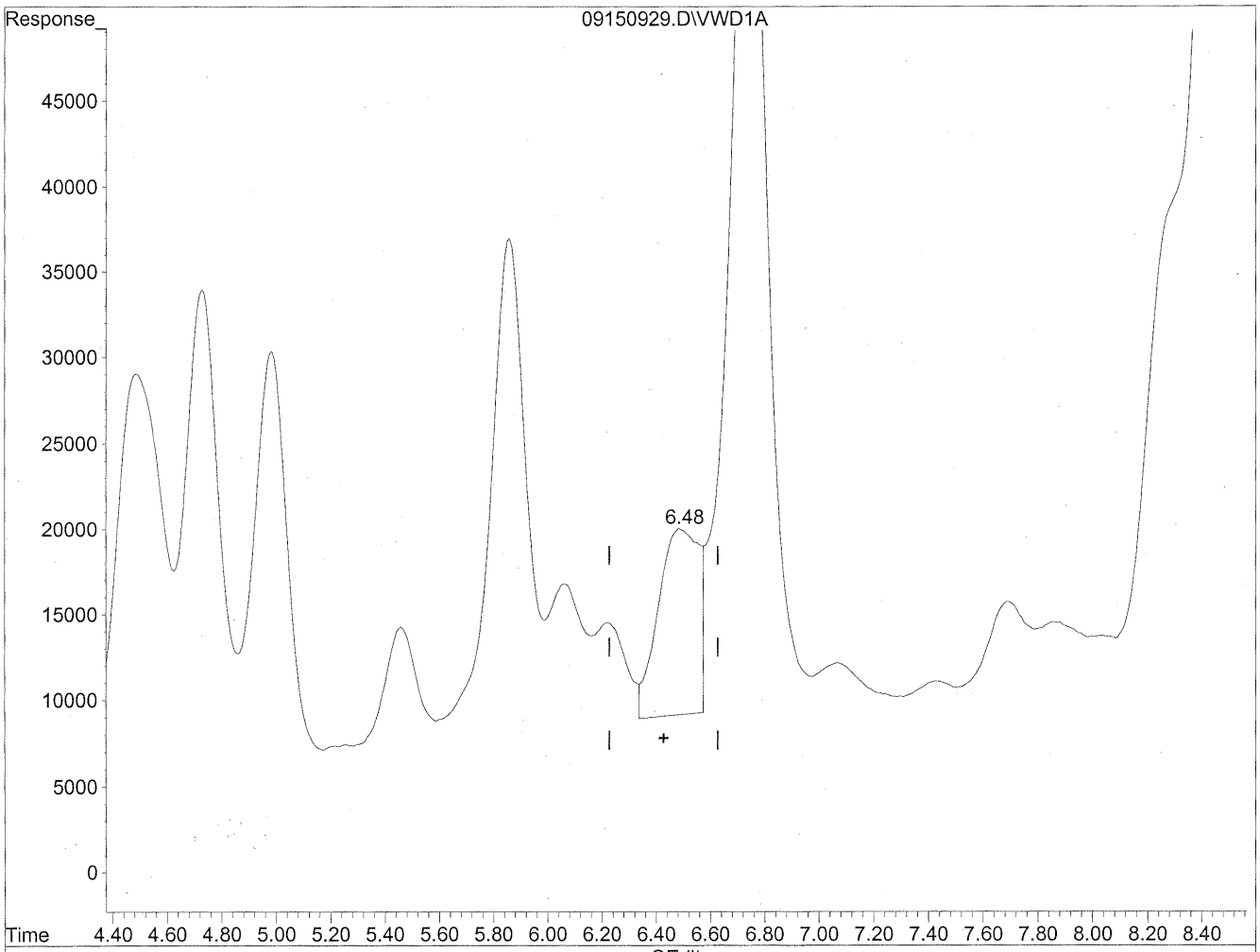
(+) = Expected Retention Time

09150929.D TO110909.M Fri Sep 18 11:19:05 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.49min 326.118ng/ml

response 1122428

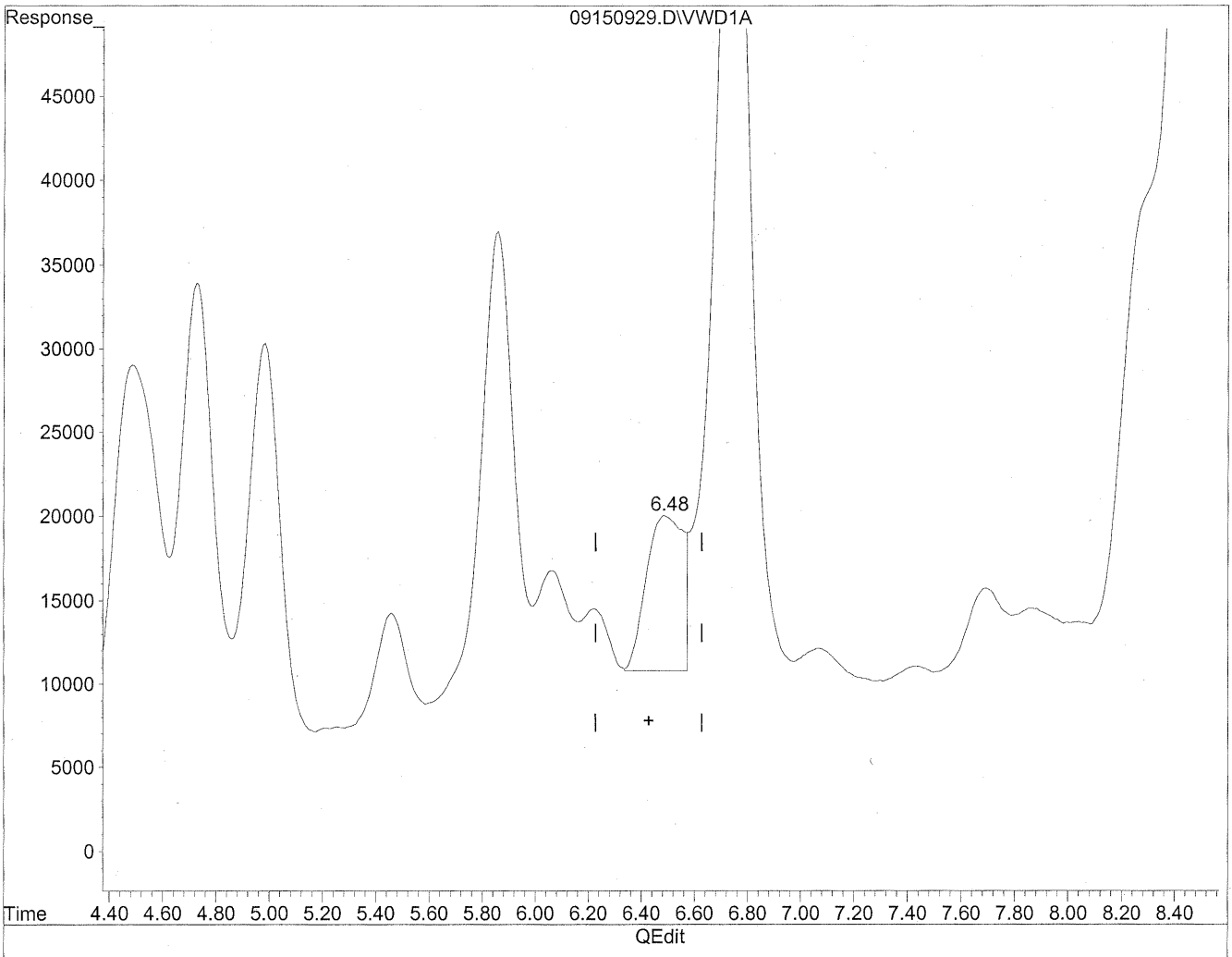
(+) = Expected Retention Time

09150929.D TO110909.M Fri Sep 18 11:19:50 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.48min 252.076ng/ml m

response 867591

HC 9/18/09

9/18/09 BC

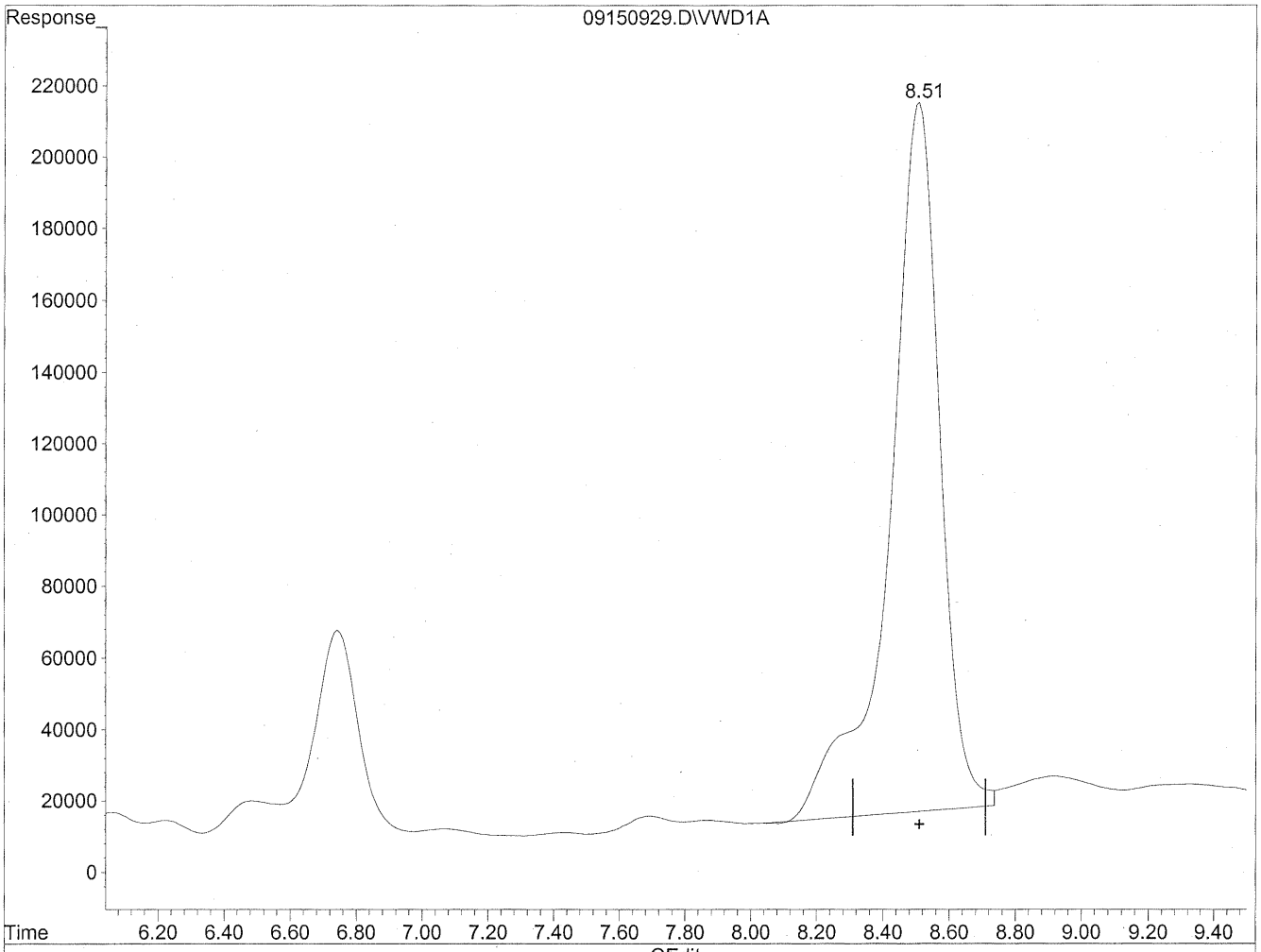
(+) = Expected Retention Time

09150929.D TO110909.M Fri Sep 18 11:20:11 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.51min 7078.985ng/ml

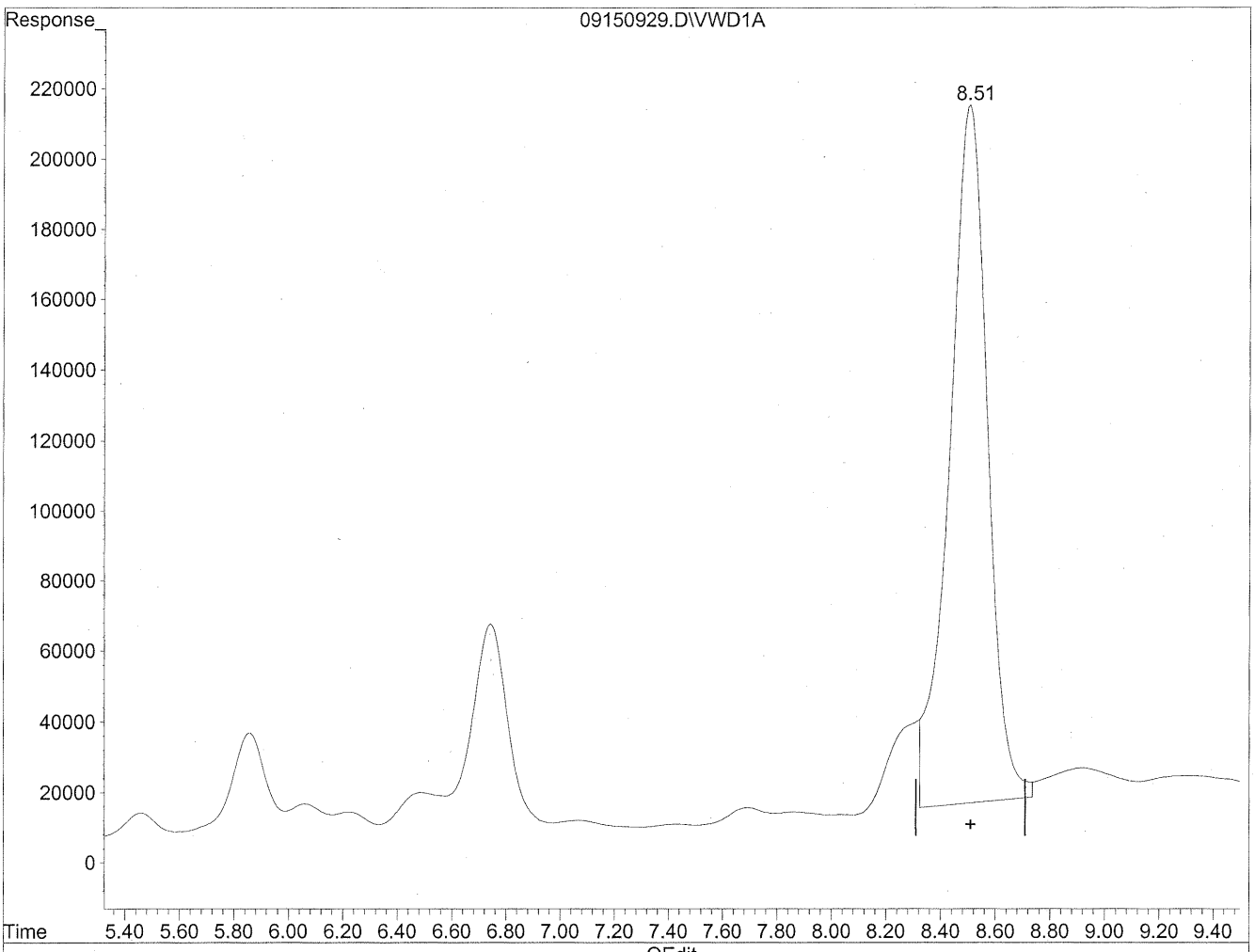
response 20958925

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.51min 6482.855ng/ml m

response 19193949

HC 9/18/09

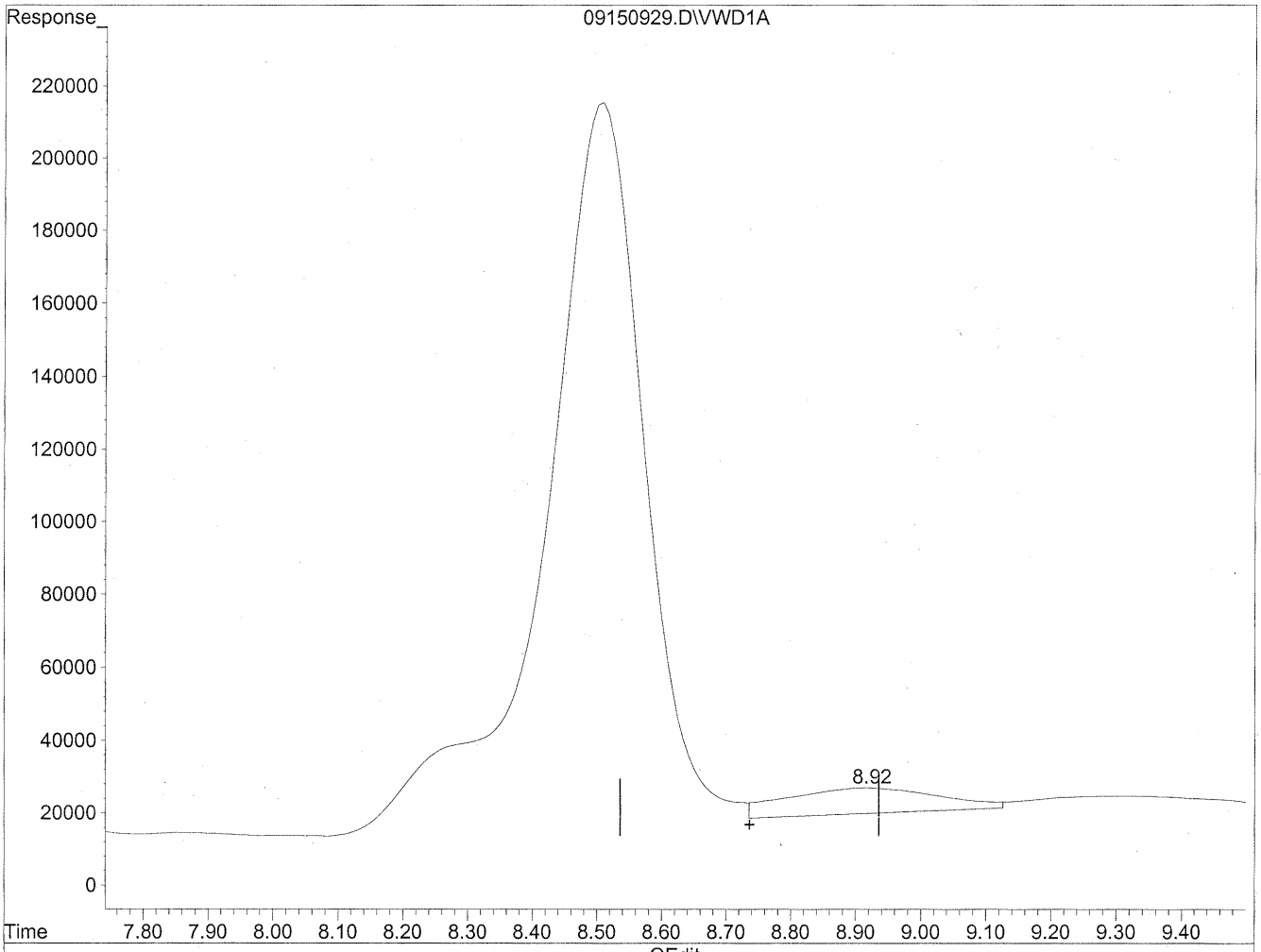
9/18/09 SH

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

8.92min 581.578ng/ml

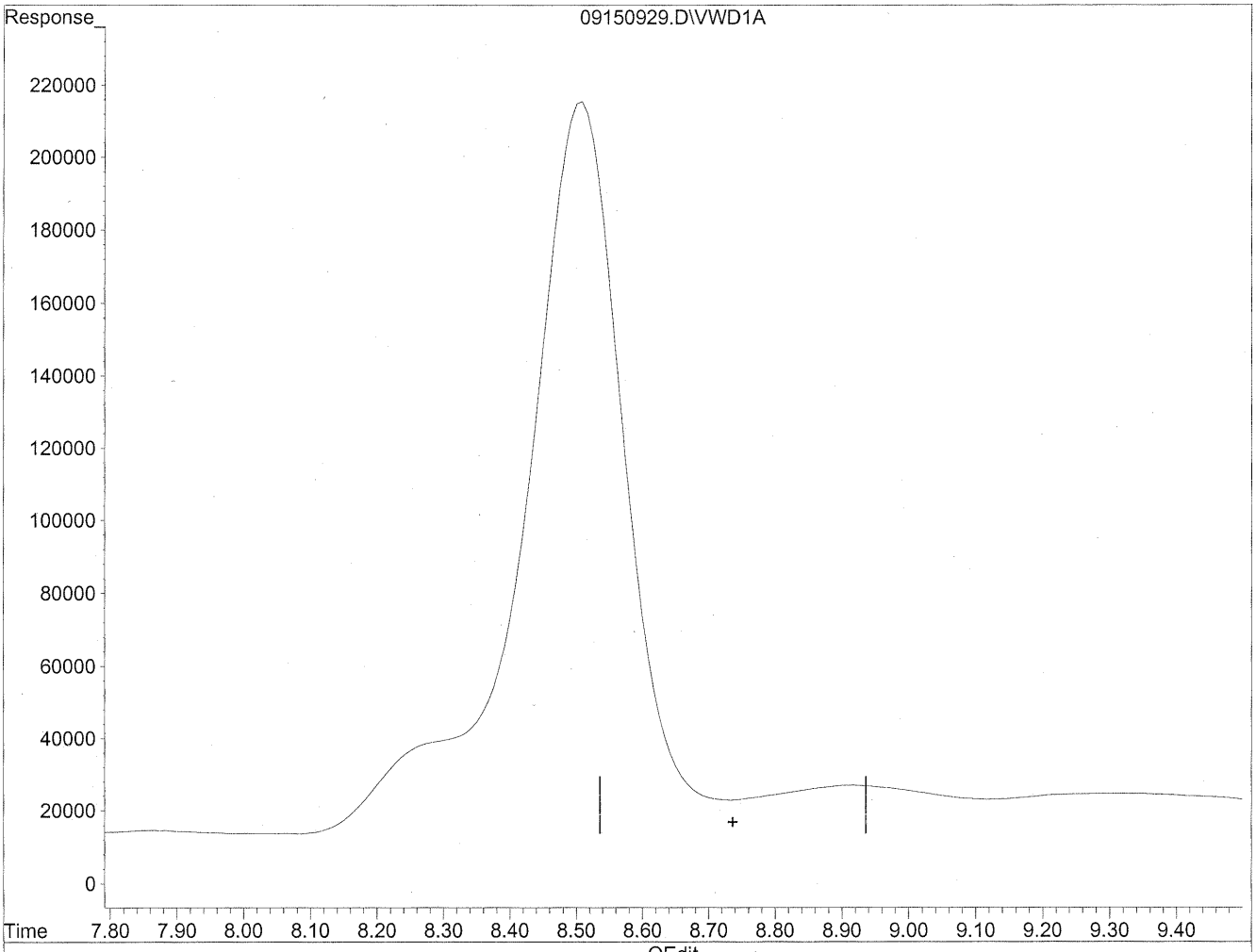
response 1160535

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150929.D Vial: 124
Acq On : 15-Sep-2009, 13:57 Operator: MD
Sample : P0903144-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:09 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

0.00min 0.000ng/ml d

response 0

MD 9/18/09 mp, RT

HC 9/18/09

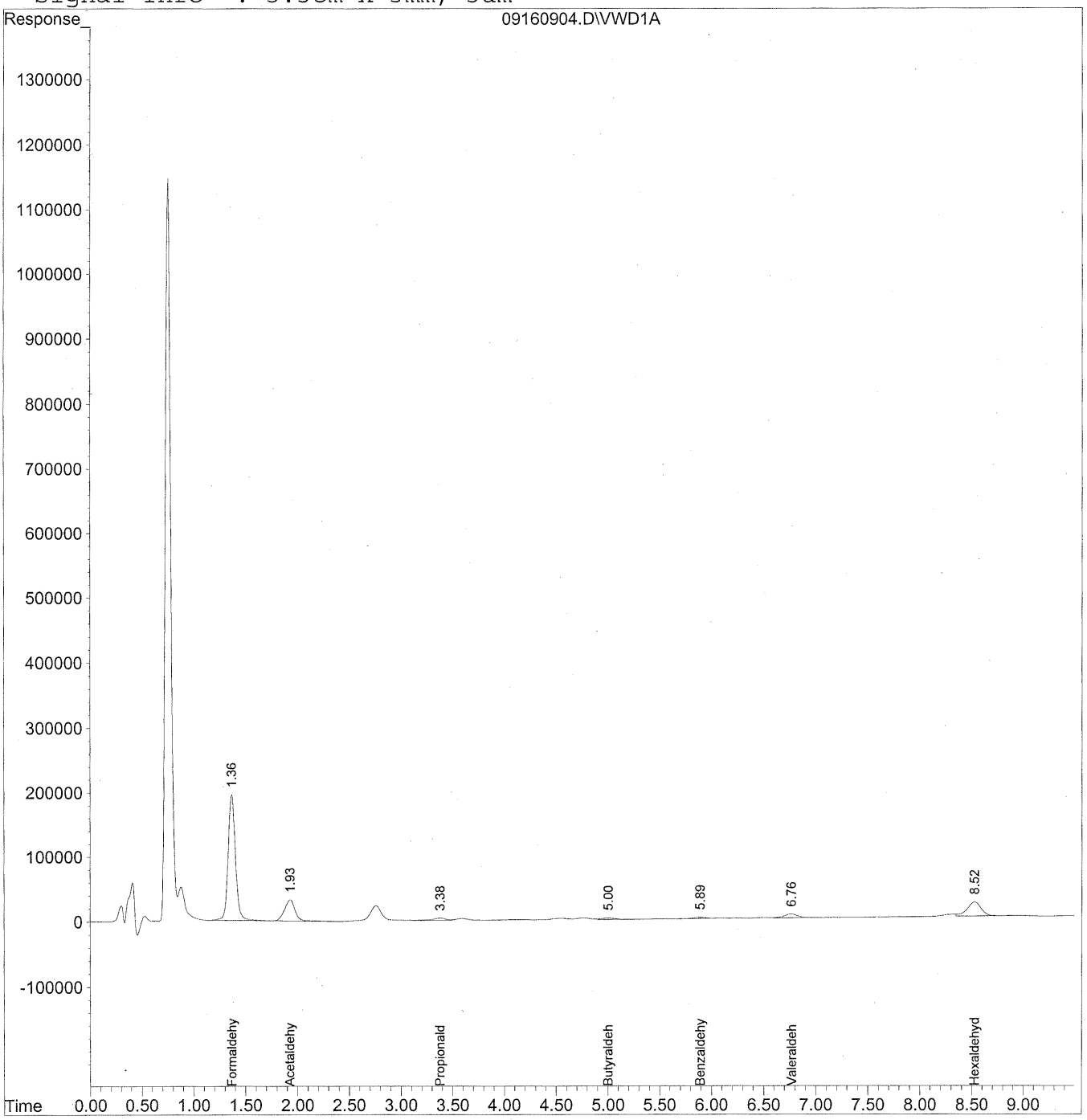
(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160904.D Vial: 8
Acq On : 16-Sep-2009, 11:31 Operator: MD
Sample : P0903144-003 front 10x dil Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:44 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160904.D Vial: 8
Acq On : 16-Sep-2009, 11:31 Operator: MD
Sample : P0903144-003 front 10x dil Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:44 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

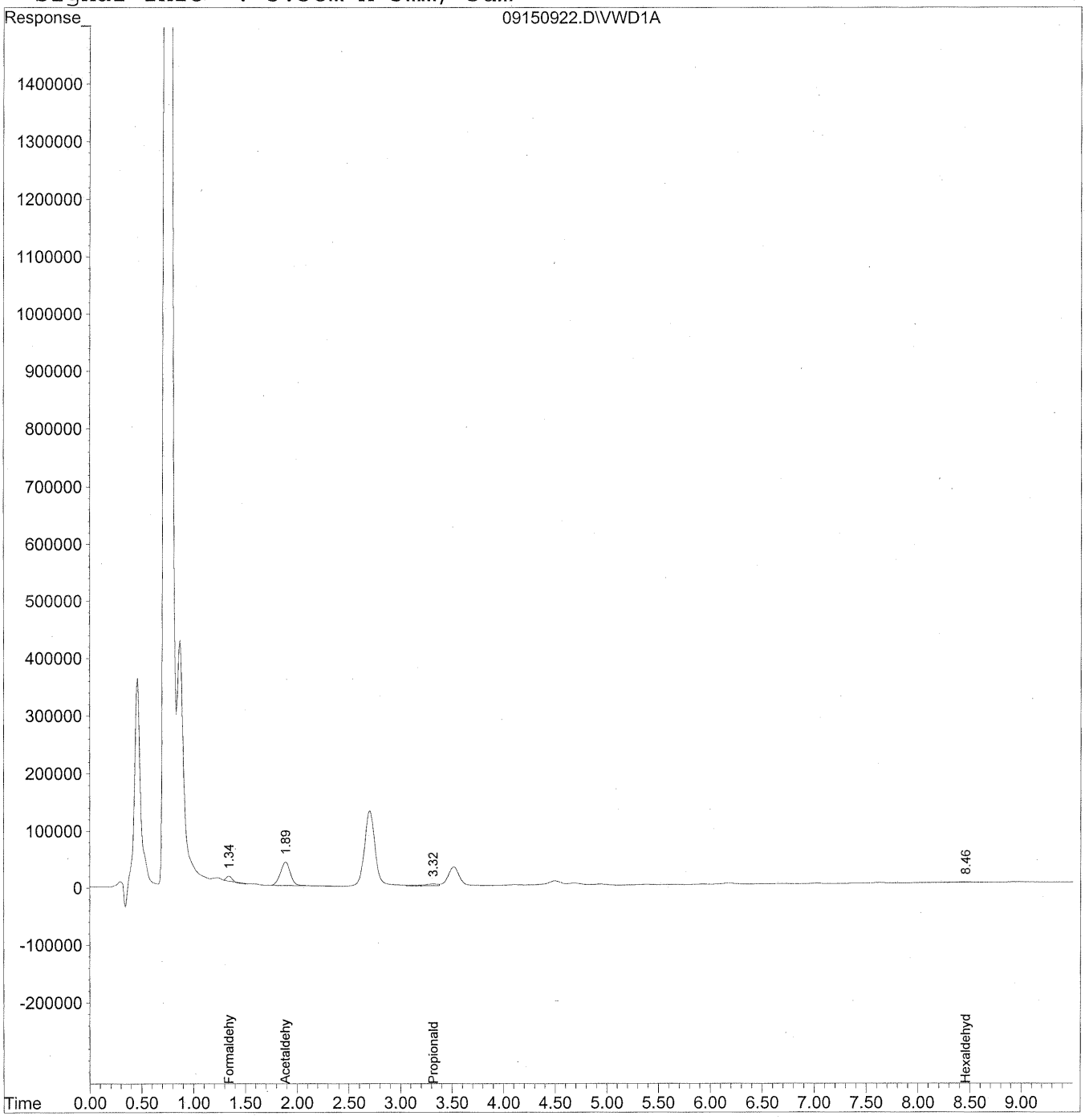
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.37	9631125	1077.858	ng/ml
2)	Acetaldehyde	1.93	2329238	358.300	ng/ml
3)	Propionaldehyde	3.38	266763	51.322	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	5.01	191180	47.173	ng/ml
6)	Benzaldehyde	5.90	123308	45.194	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	6.76	476792	140.248	ng/mlm
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.52	2061430	696.259	ng/mlm
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/mld

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150922.D Vial: 117
Acq On : 15-Sep-2009, 12:33 Operator: MD
Sample : P0903144-003 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:10 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150922.D Vial: 117
Acq On : 15-Sep-2009, 12:33 Operator: MD
Sample : P0903144-003 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:10 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	285405	31.941	ng/ml
2)	Acetaldehyde	1.89	2768346	425.847	ng/ml
3)	Propionaldehyde	3.32	353060	67.925	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.46	105289	35.562	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102711**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-004

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15 - 9/16/09
Desorption Volume: 1.0 ml
Volume Sampled: 104.6 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	**Formaldehyde**	**12,000**	**110**	0.96	**91**	0.78	
75-07-0	**Acetaldehyde**	**4,600**	**44**	0.96	**24**	0.53	**BT**
123-38-6	**Propionaldehyde**	**640**	**6.2**	0.96	**2.6**	0.40	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.96	ND	0.33	
123-72-8	**Butyraldehyde**	**560**	**5.4**	0.96	**1.8**	0.32	
100-52-7	**Benzaldehyde**	**890**	**8.5**	0.96	**2.0**	0.22	
590-86-3	**Isovaleraldehyde**	**320**	**3.0**	0.96	**0.86**	0.27	
110-62-3	**Valeraldehyde**	**1,800**	**17**	0.96	**4.8**	0.27	
529-20-4	o-Tolualdehyde	< 100	ND	0.96	ND	0.19	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.9	ND	0.39	
66-25-1	**n-Hexaldehyde**	**7,300**	**70**	0.96	**17**	0.23	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	0.96	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.
BT = Results indicated possible breakthrough; back section > 10% front section.

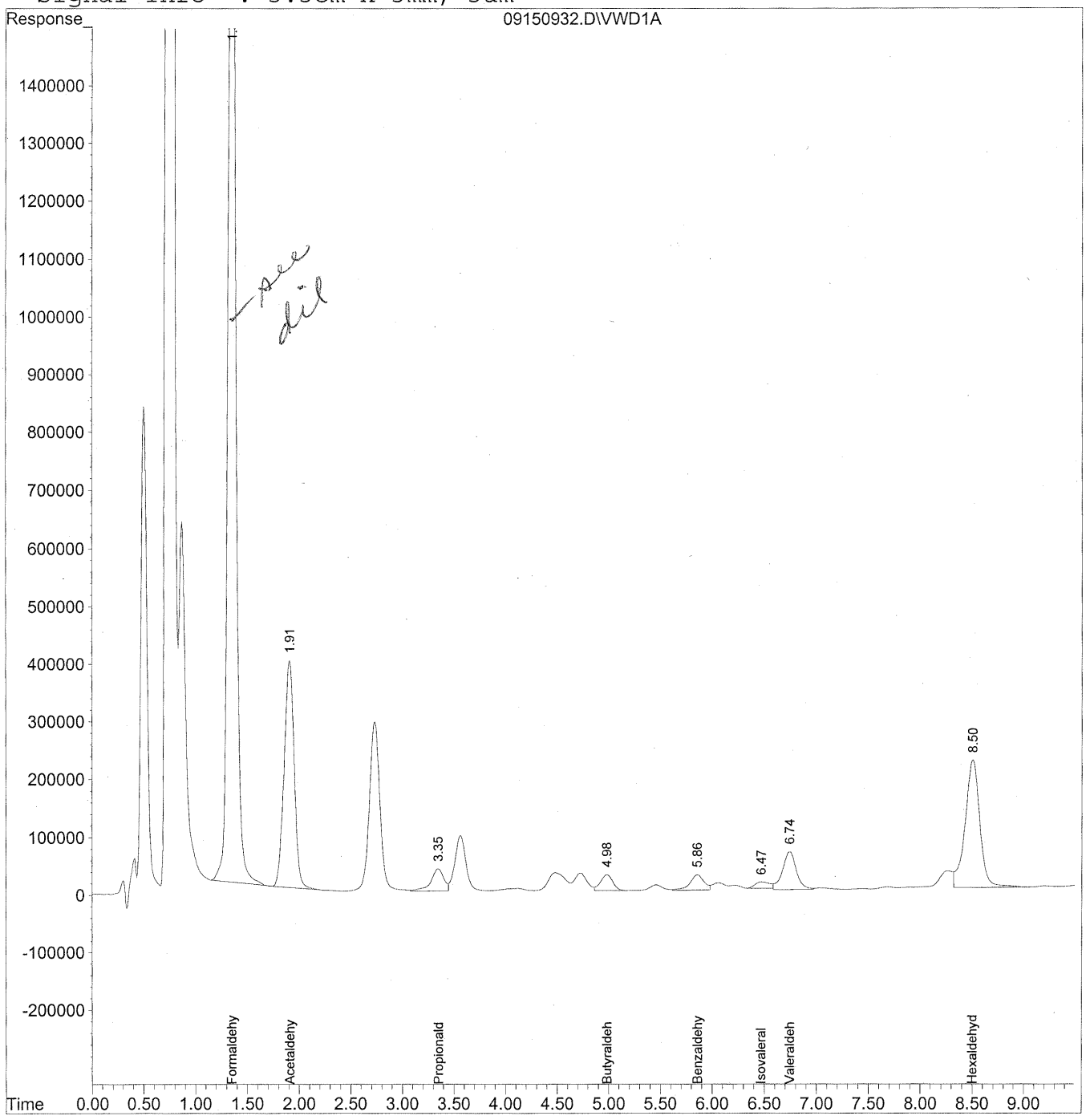
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150932.D Vial: 125
Acq On : 15-Sep-2009, 14:32 Operator: MD
Sample : P0903144-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:22 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



50

Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150932.D Vial: 125
Acq On : 15-Sep-2009, 14:32 Operator: MD
Sample : P0903144-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:22 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

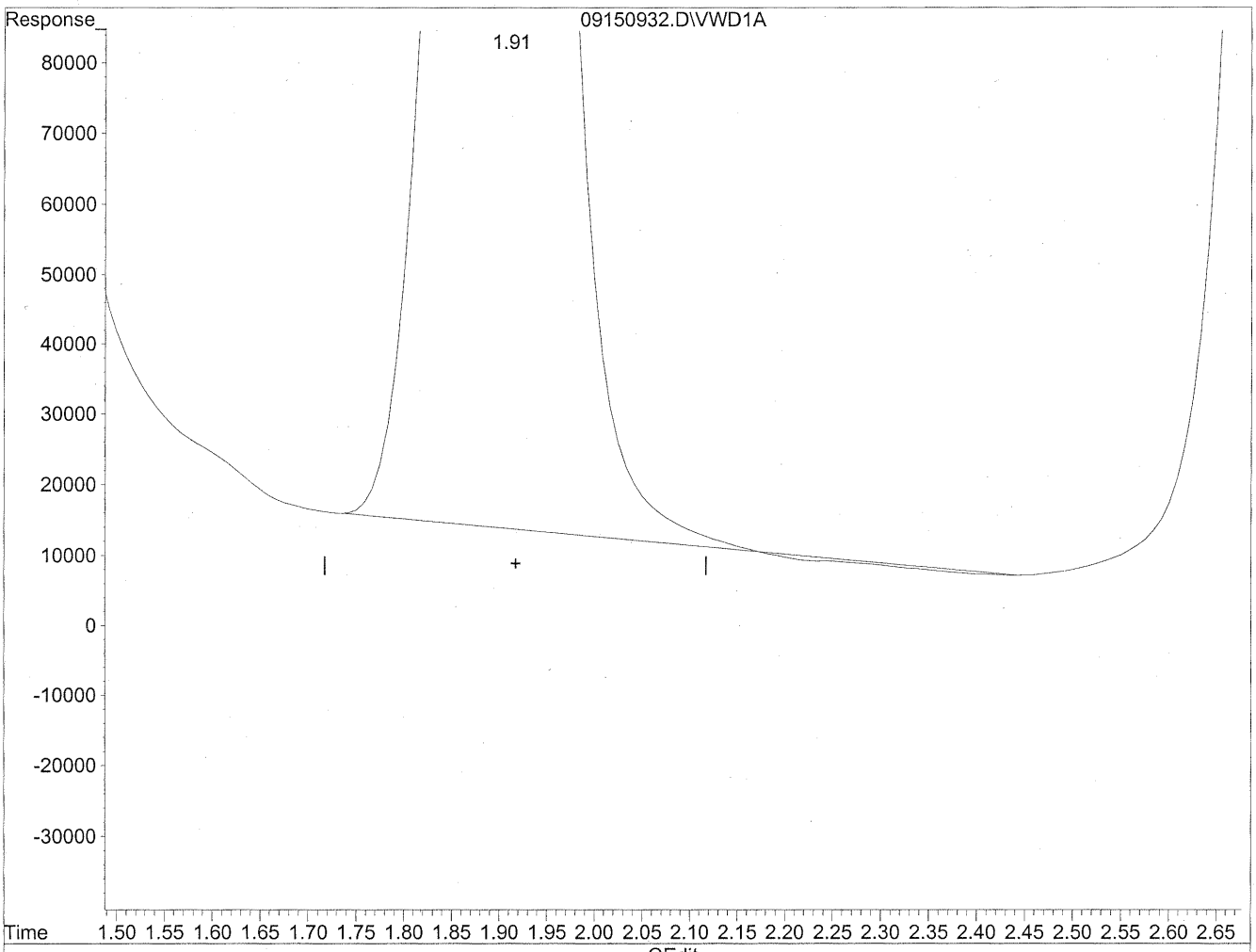
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Formaldehyde	1.35	104124926	~~11653.039~~	~~ng/ml~~ dil
2)	Acetaldehyde	1.91	26409835	4062.553	ng/mlm
3)	Propionaldehyde	3.35	3347956	644.107	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	4.99	2269843	560.072	ng/ml
6)	Benzaldehyde	5.86	2429258	890.367	ng/ml
7)	Isovaleraldehyde	6.47	1092382	317.388	ng/mlm
8)	Valeraldehyde	6.75	6070905	1785.750	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.51	21644530	7310.551	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150932.D Vial: 125
Acq On : 15-Sep-2009, 14:32 Operator: MD
Sample : P0903144-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 10:38 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(2) Acetaldehyde

1.91min 4044.796ng/ml

response 26294402

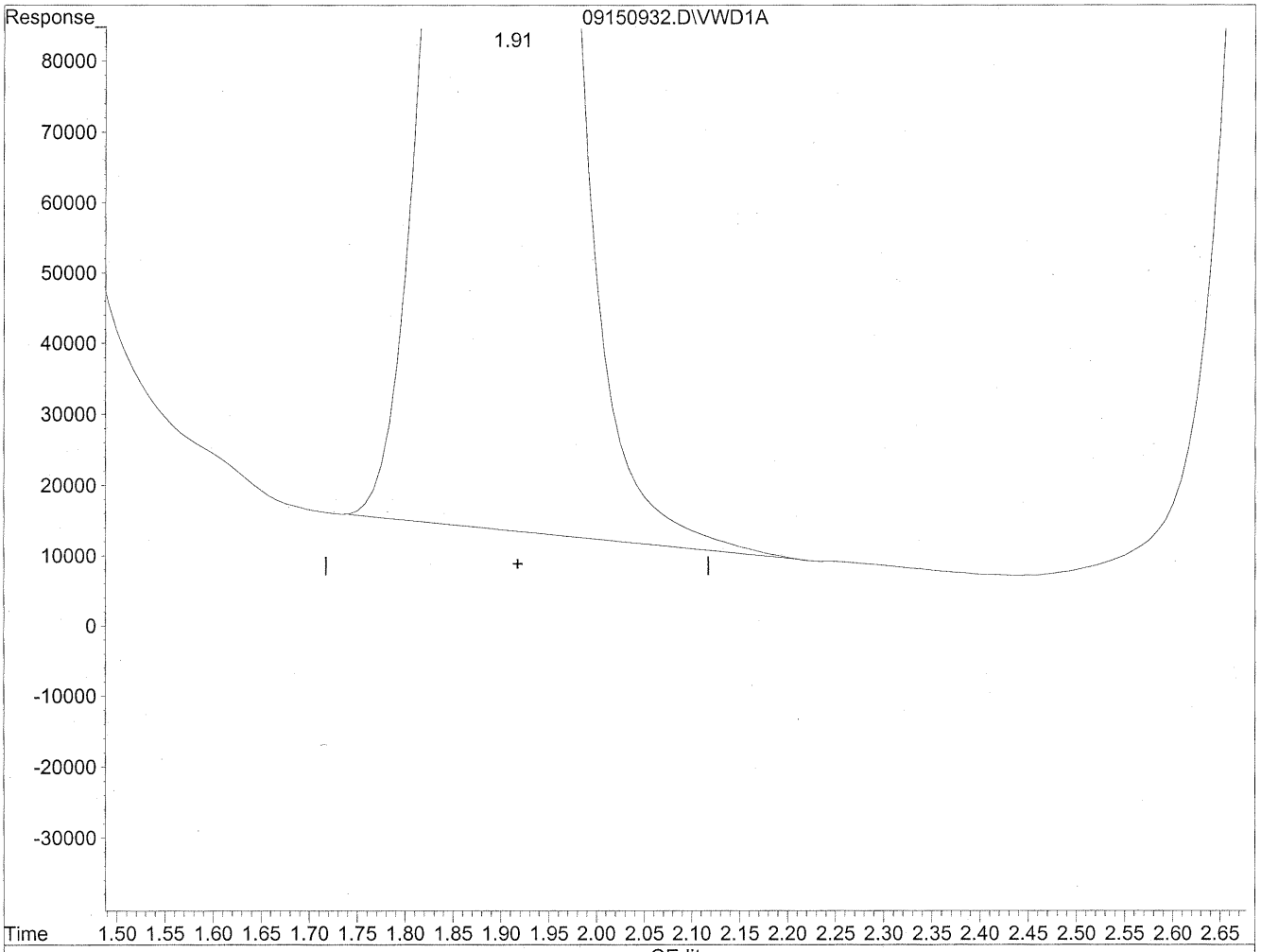
(+) = Expected Retention Time

09150932.D TO110909.M Fri Sep 18 11:21:33 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150932.D Vial: 125
Acq On : 15-Sep-2009, 14:32 Operator: MD
Sample : P0903144-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 10:38 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(2) Acetaldehyde

1.91min 4062.553ng/ml m

response 26409835

9/18/09

9/18/09

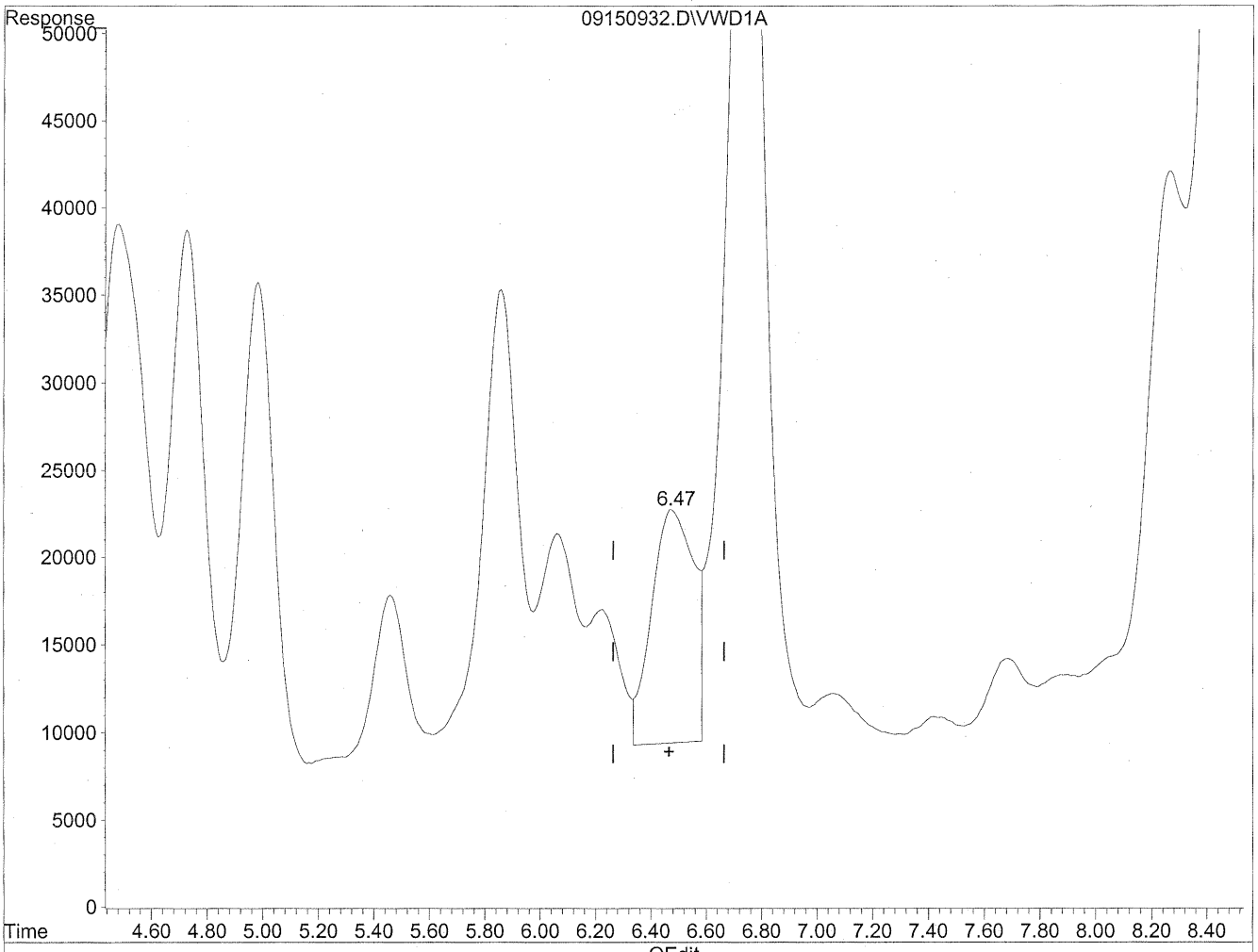
(+) = Expected Retention Time

09150932.D TO110909.M Fri Sep 18 11:21:39 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150932.D Vial: 125
Acq On : 15-Sep-2009, 14:32 Operator: MD
Sample : P0903144-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 10:38 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.48min 408.065ng/ml

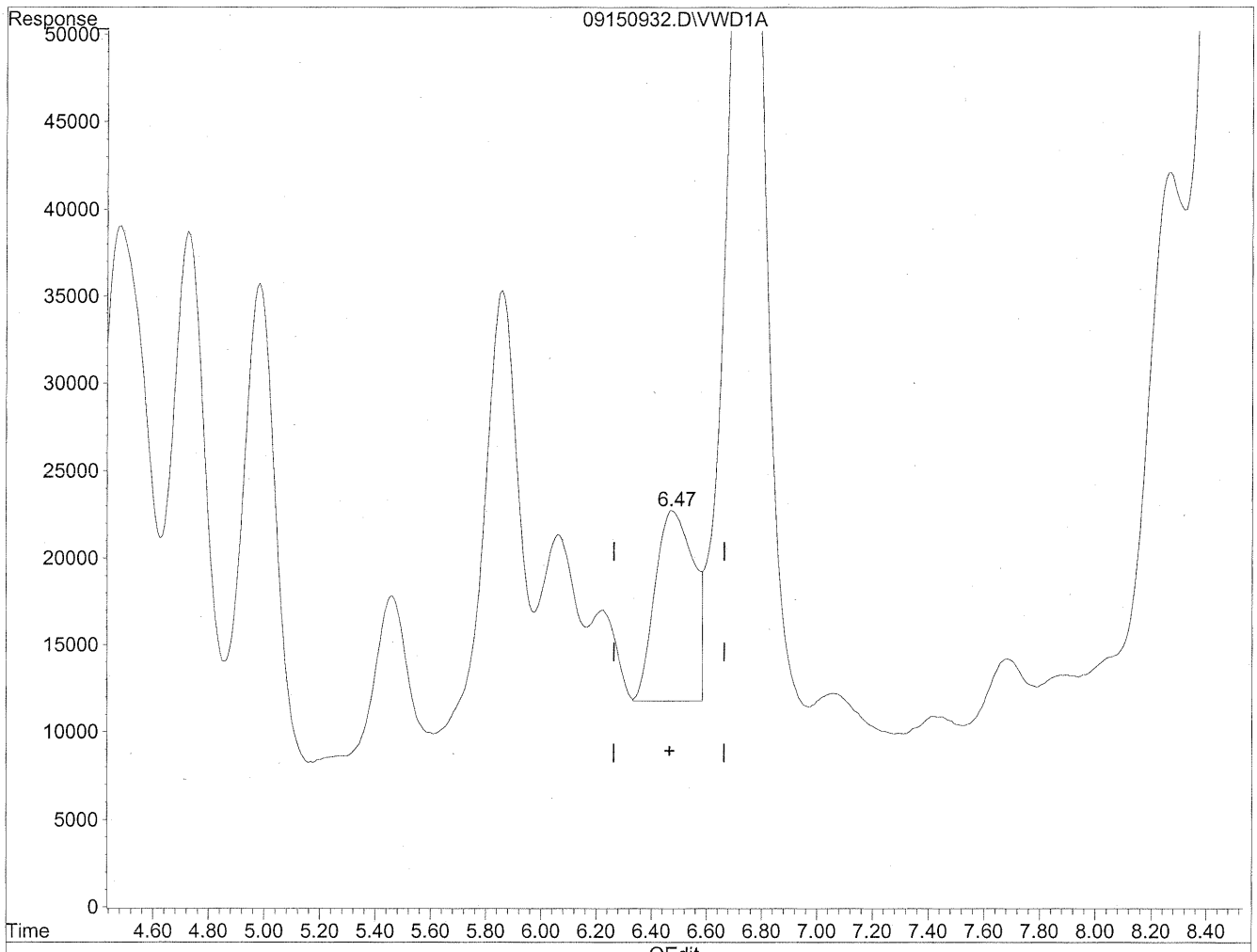
response 1404473

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150932.D Vial: 125
Acq On : 15-Sep-2009, 14:32 Operator: MD
Sample : P0903144-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 10:38 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde

6.47min 317.388ng/ml m

response 1092382

9/18/09 BC

9/18/09

(+) = Expected Retention Time

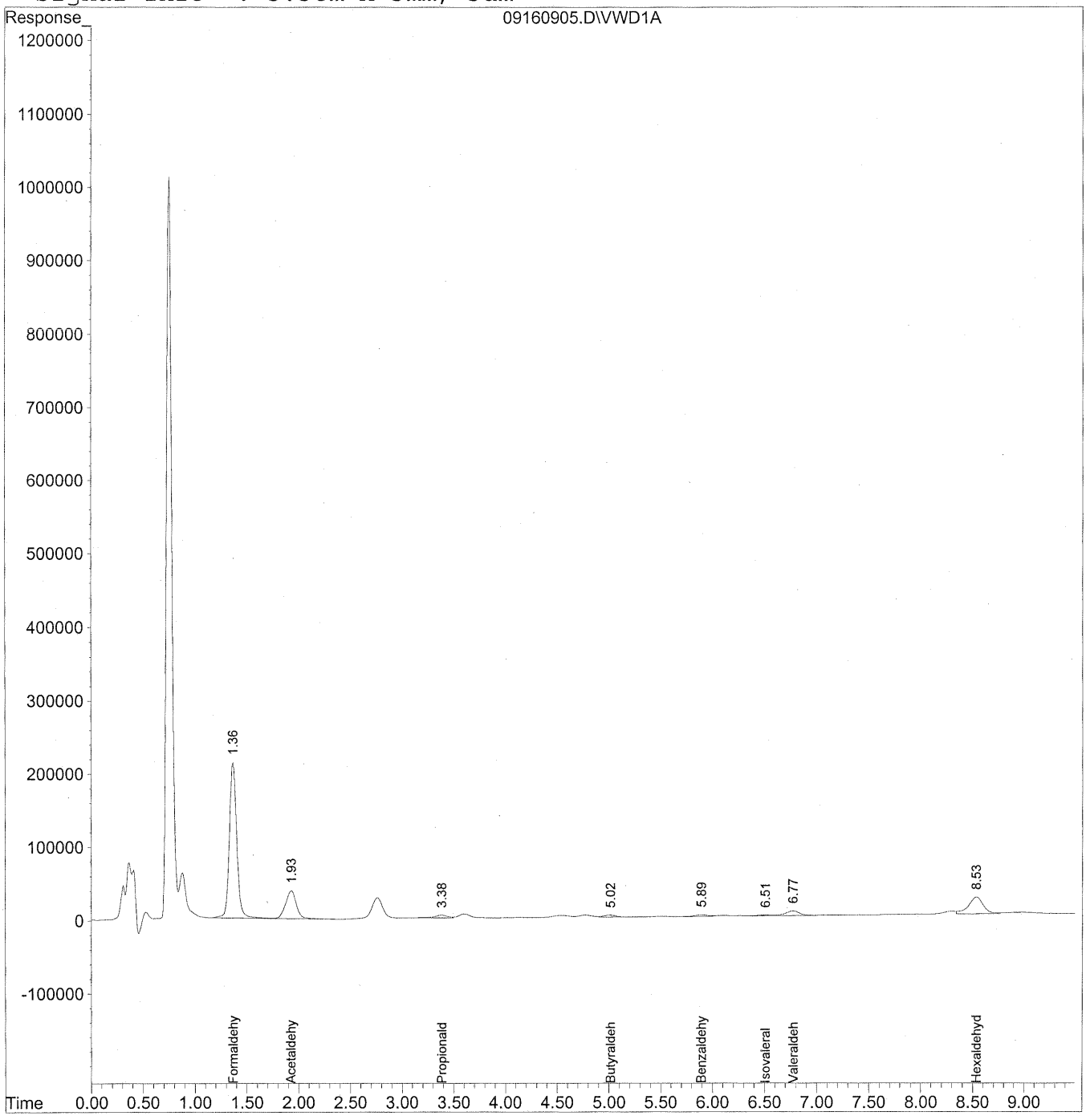
09150932.D TO110909.M Fri Sep 18 11:22:10 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160905.D Vial: 7
Acq On : 16-Sep-2009, 11:42 Operator: MD
Sample : P0903144-004 front 10x dil Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:44 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160905.D Vial: 7
Acq On : 16-Sep-2009, 11:42 Operator: MD
Sample : P0903144-004 front 10x dil Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:44 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.37	10441919	1168.597	ng/ml
2)	Acetaldehyde	1.93	2712796	417.302	ng/ml
3)	Propionaldehyde	3.38	320946	61.746	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	5.02	222559	54.915	ng/ml
6)	Benzaldehyde	5.90	183678	67.321	ng/ml
7)	Isovaleraldehyde	6.51	108879	31.634	ng/ml
8)	Valeraldehyde	6.78	551561	162.241	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.54	2281610	770.626	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/mld

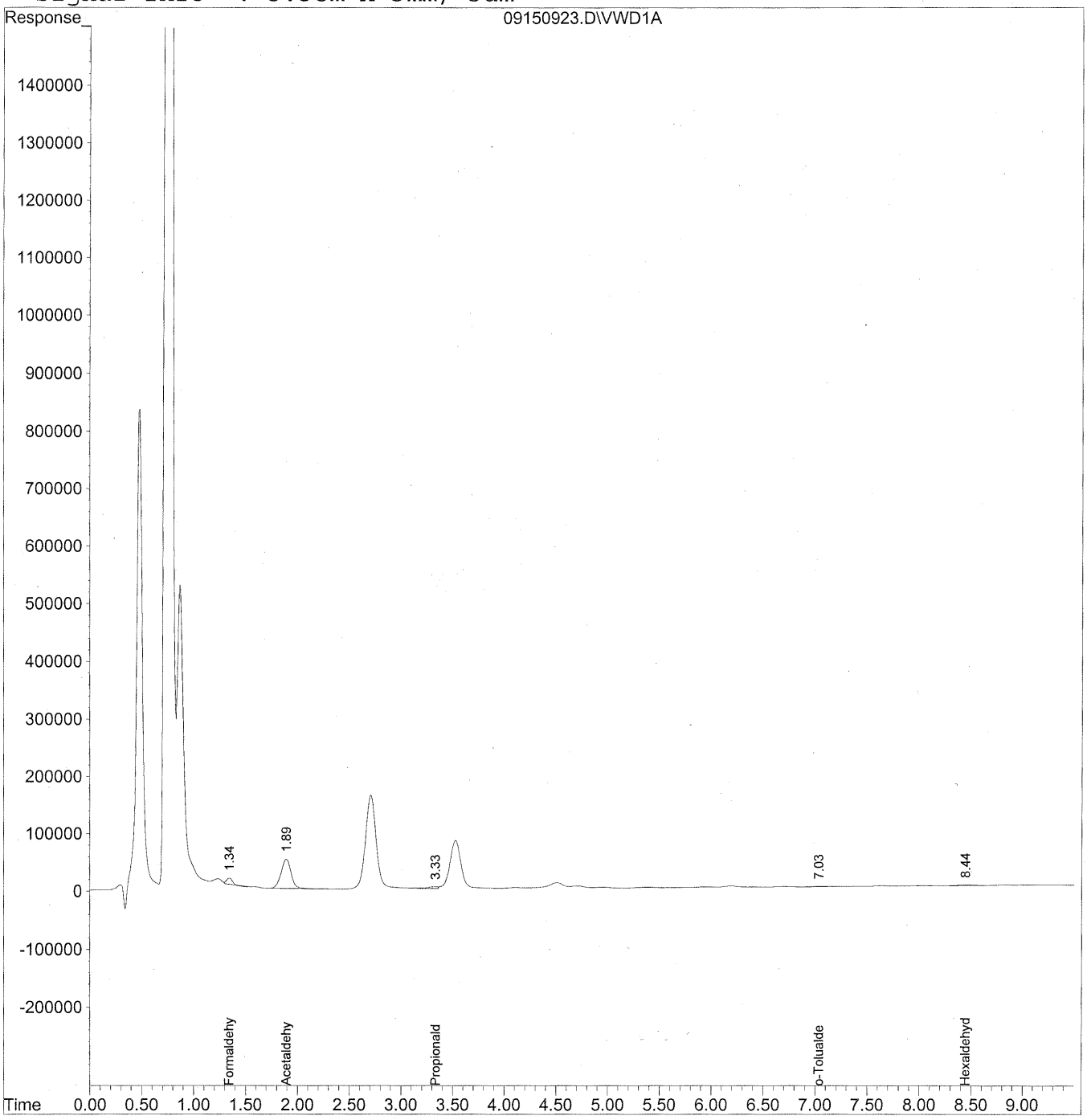
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150923.D Vial: 118
Acq On : 15-Sep-2009, 12:45 Operator: MD
Sample : P0903144-004 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:12 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150923.D Vial: 118
Acq On : 15-Sep-2009, 12:45 Operator: MD
Sample : P0903144-004 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:12 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	368690	41.262	ng/ml
2)	Acetaldehyde	1.90	3352709	515.738	ng/ml
3)	Propionaldehyde	3.34	239877	46.150	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	7.04f	79477	36.215	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	8.45	65418	22.095	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102712**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-005

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15/09
Desorption Volume: 1.0 ml
Volume Sampled: 99.6 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	**Formaldehyde**	**220**	**2.2**	1.0	**1.8**	0.82	
75-07-0	**Acetaldehyde**	**120**	**1.2**	1.0	**0.68**	0.56	
123-38-6	Propionaldehyde	< 100	ND	1.0	ND	0.42	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.0	ND	0.35	
123-72-8	Butyraldehyde	< 100	ND	1.0	ND	0.34	
100-52-7	Benzaldehyde	< 100	ND	1.0	ND	0.23	
590-86-3	Isovaleraldehyde	< 100	ND	1.0	ND	0.29	
110-62-3	Valeraldehyde	< 100	ND	1.0	ND	0.29	
529-20-4	o-Tolualdehyde	< 100	ND	1.0	ND	0.20	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	2.0	ND	0.41	
66-25-1	n-Hexaldehyde	< 100	ND	1.0	ND	0.25	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.0	ND	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.

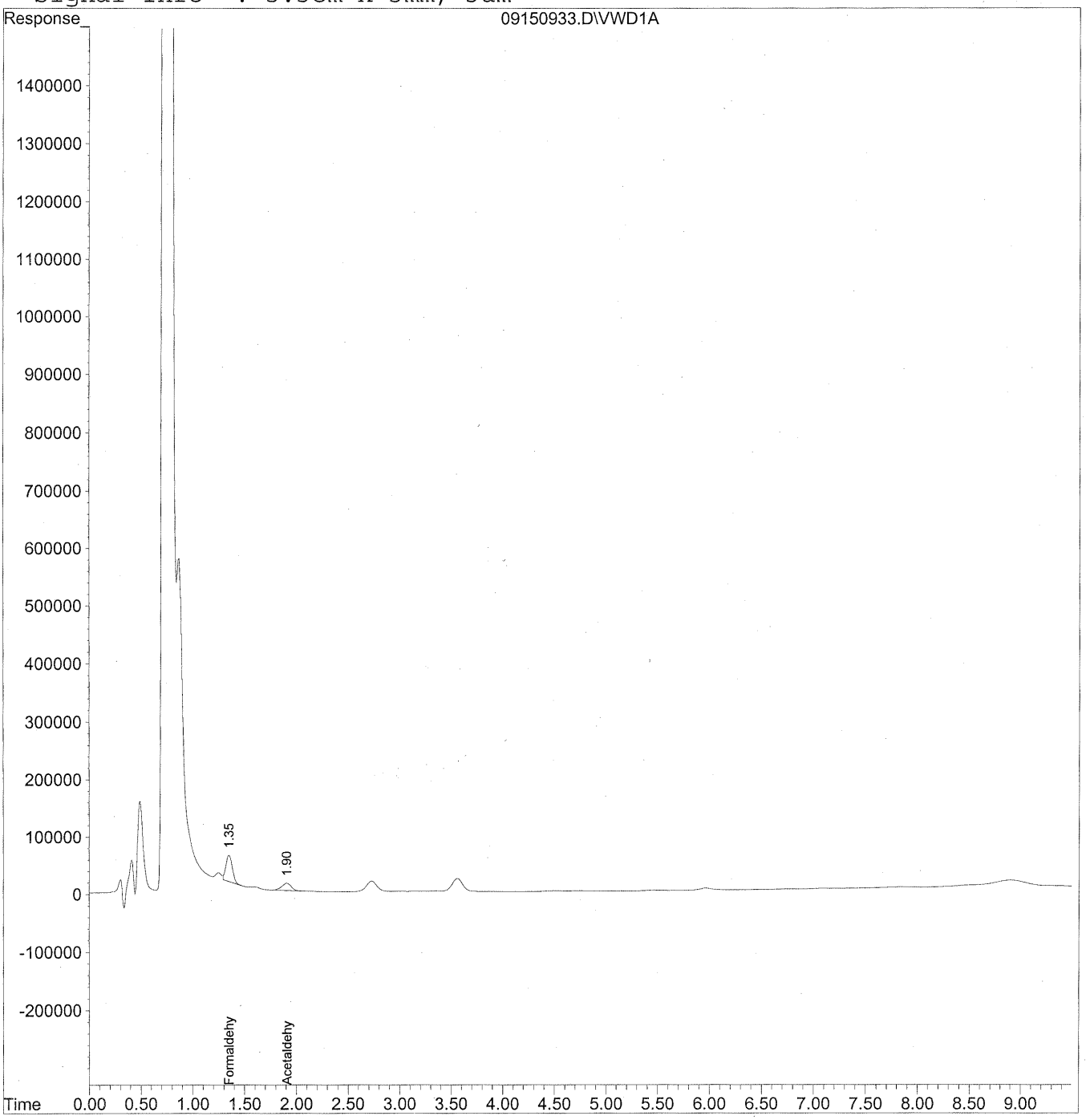
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:23 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:23 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

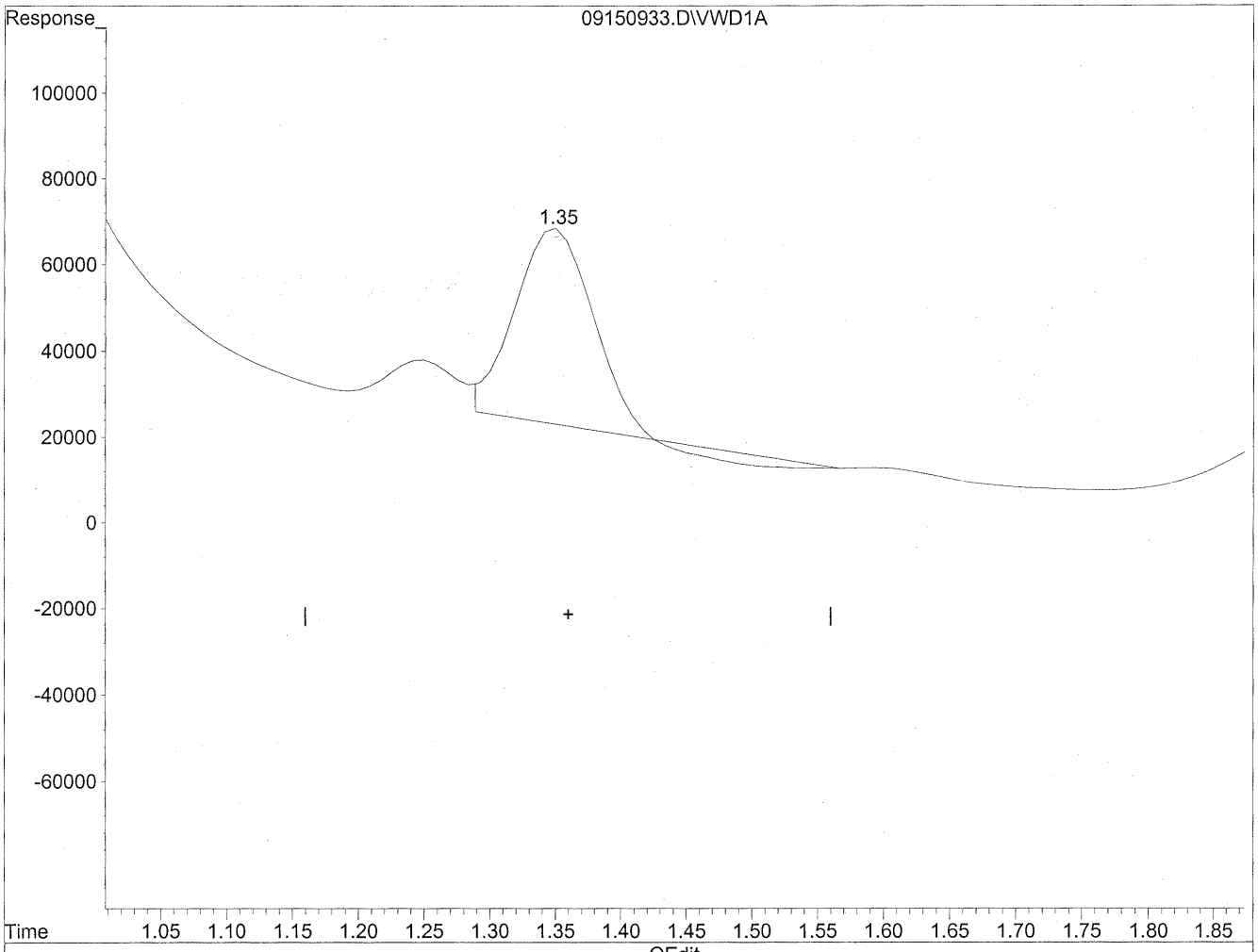
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	1980405	221.635	ng/mlm
2)	Acetaldehyde	1.90	797472	122.673	ng/mlm
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/mld

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:07 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(1) Formaldehyde

1.35min 199.926ng/ml

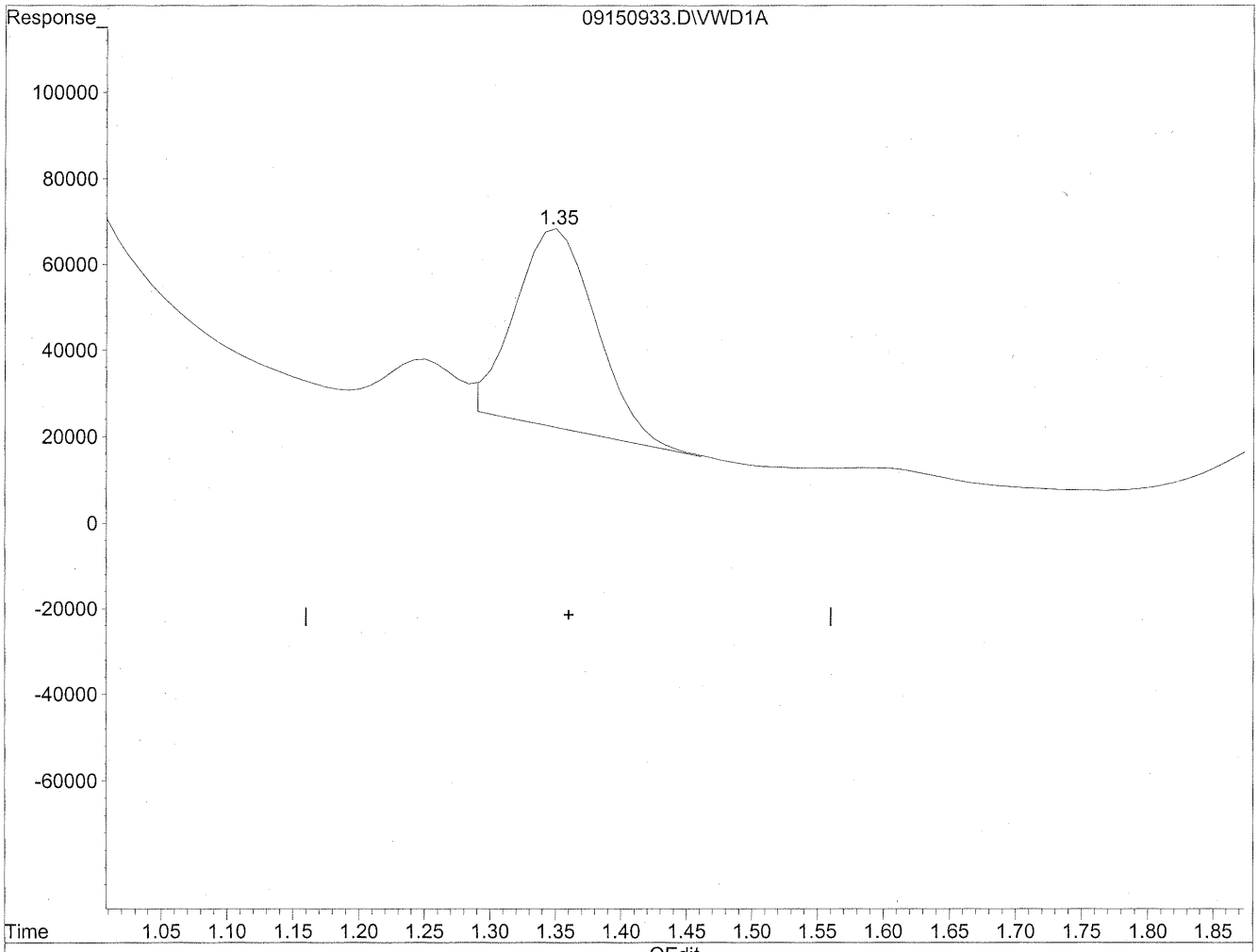
response 1786424

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:07 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(1) Formaldehyde

1.35min 221.635ng/ml m

response 1980405

9/18/09 TC

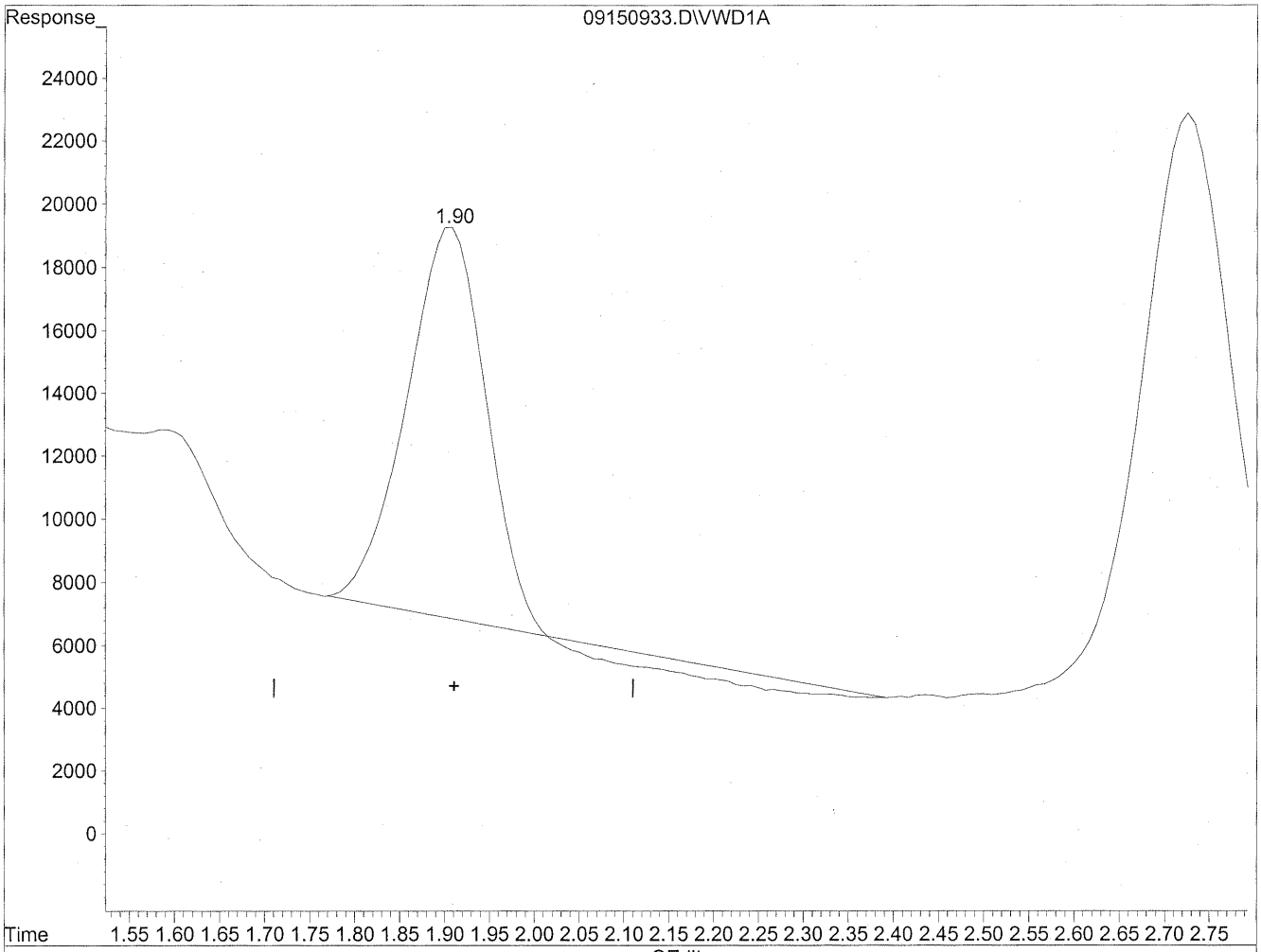
9/18/09

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:07 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(2) Acetaldehyde

1.91min 106.832ng/ml

response 694496

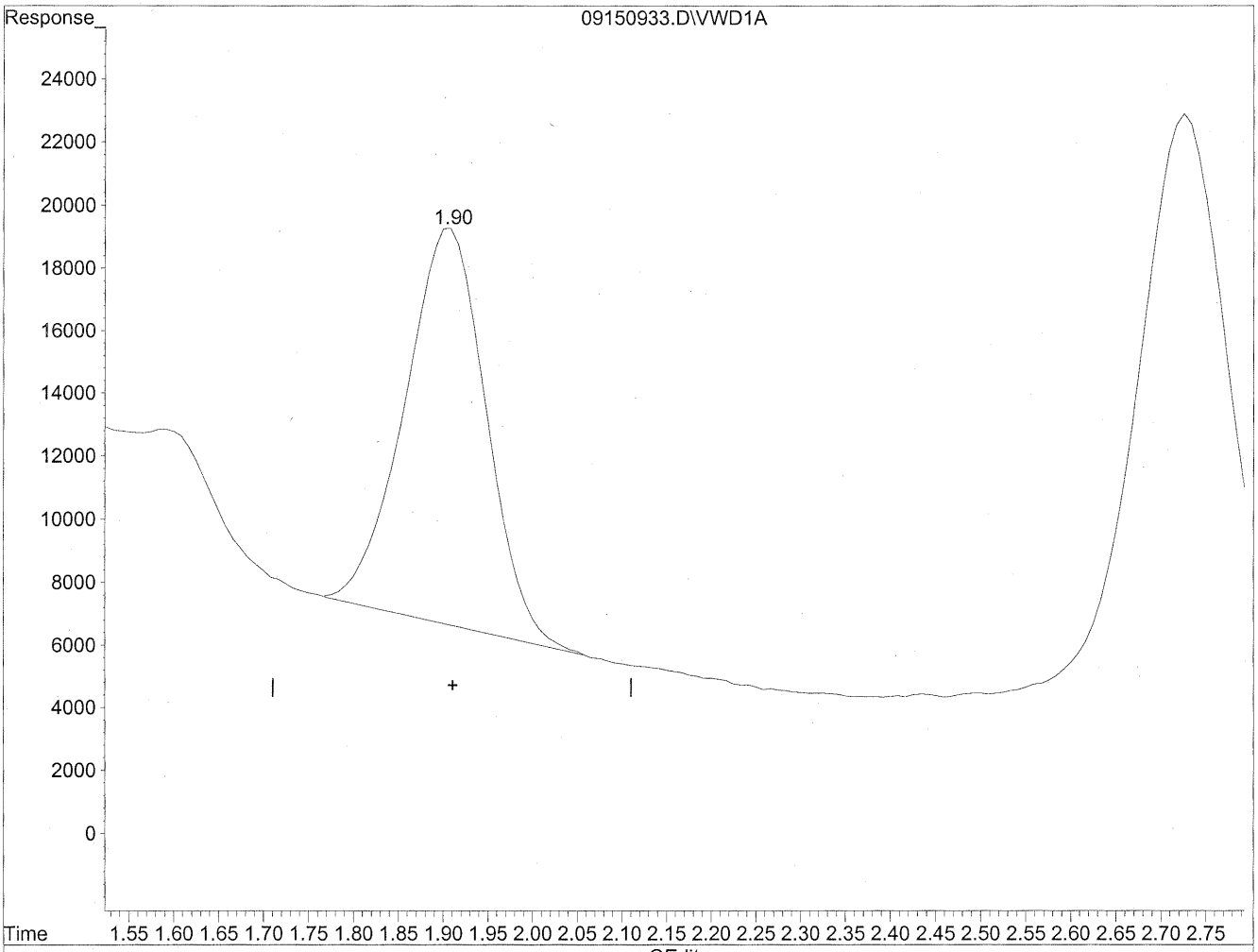
(+) = Expected Retention Time

09150933.D TO110909.M Fri Sep 18 11:23:04 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:07 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(2) Acetaldehyde

1.90min 122.673ng/ml m

response 797472

mc 9/18/09 12

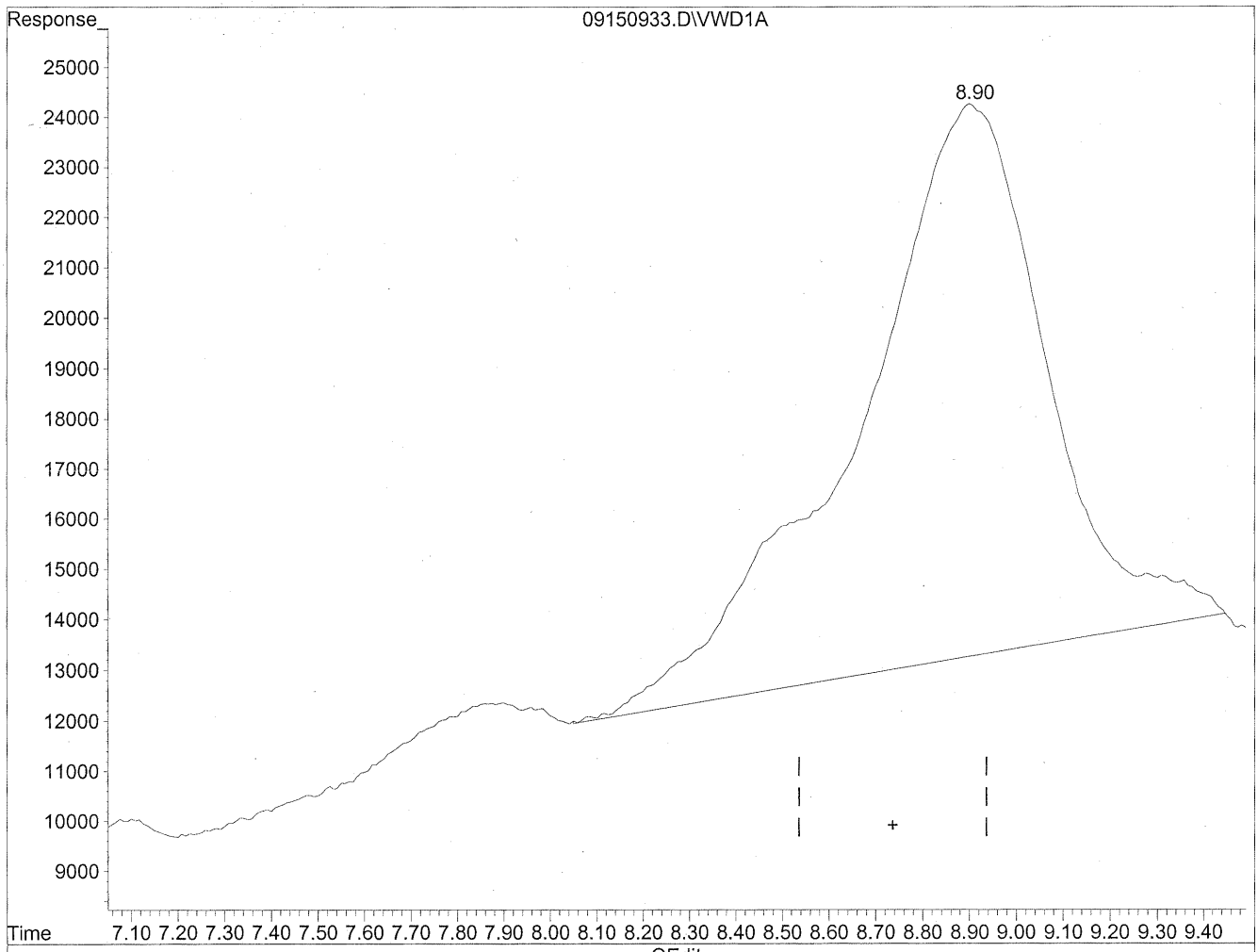
sc 9/18/09

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D Vial: 126
Acq On : 15-Sep-2009, 14:45 Operator: MD
Sample : P0903144-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:07 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



QEdit

(12) 2,5-Dimethylbenzaldehyde

8.90min 1544.827ng/ml

response 3082691

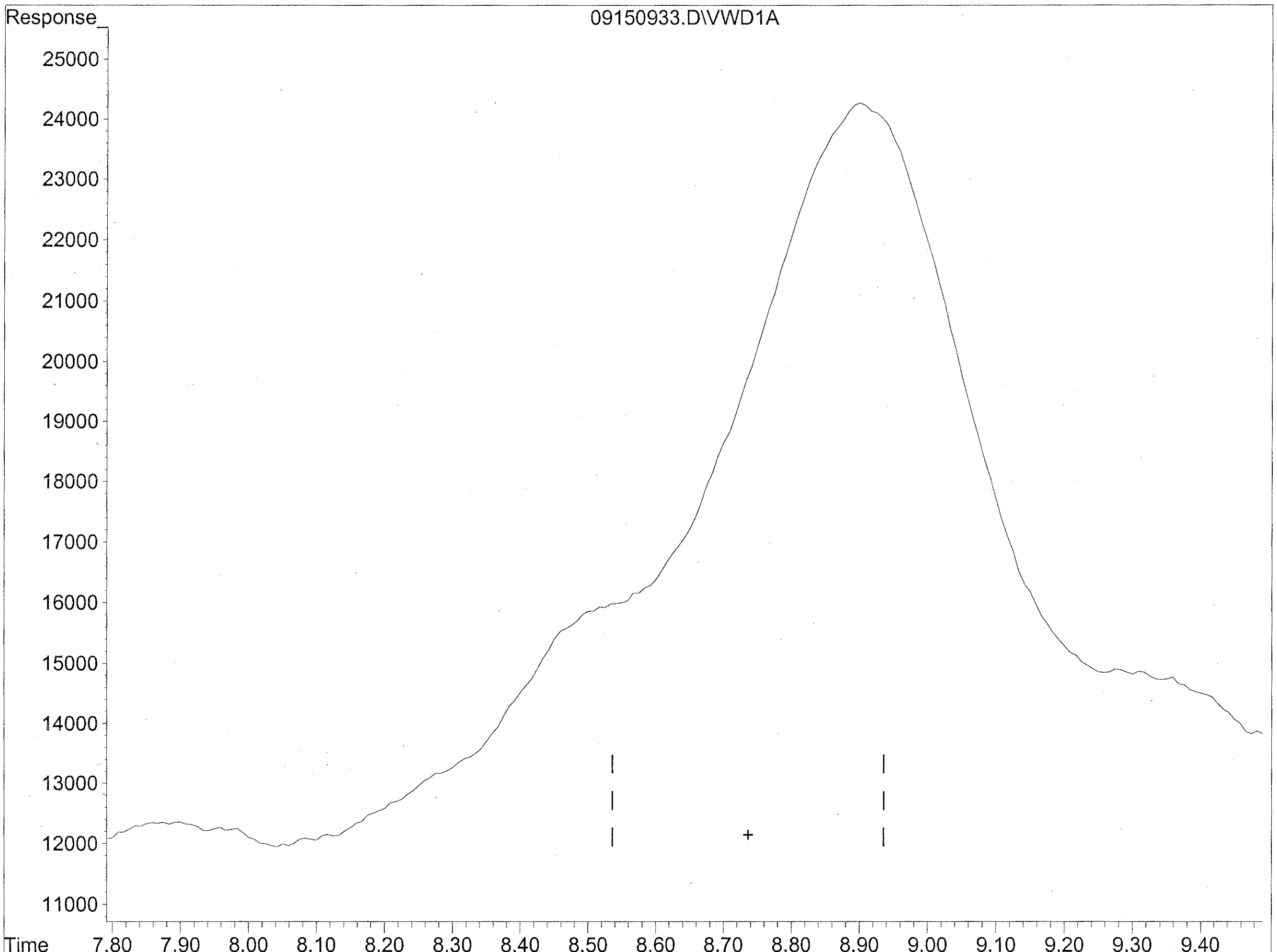
(+) = Expected Retention Time

09150933.D TO110909.M Fri Sep 18 11:23:18 2009

Quantitation Report

```
Data File : J:\LC02\DATA\TO11A\2009_09\15\09150933.D      Vial: 126
Acq On    : 15-Sep-2009, 14:45                          Operator: MD
Sample    : P0903144-005 front 1.0ml                    Inst    : VWD
Misc      :                                             Multiplr: 1.00
IntFile   : events.e
Quant Time: Sep 16  8:07 19109  Quant Results File: TO110909.RES

Method         : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title          : LC-1050 TO-11A ICAL
Last Update    : Thu Sep 17 16:12:59 2009
Response via   : Multiple Level Calibration
```



QEdit

(12) 2,5-Dimethylbenzaldehyde

0.00min 0.000ng/ml d

response 0

ma 9/18/09 mp, not real

ll 9/18/09

(+) = Expected Retention Time

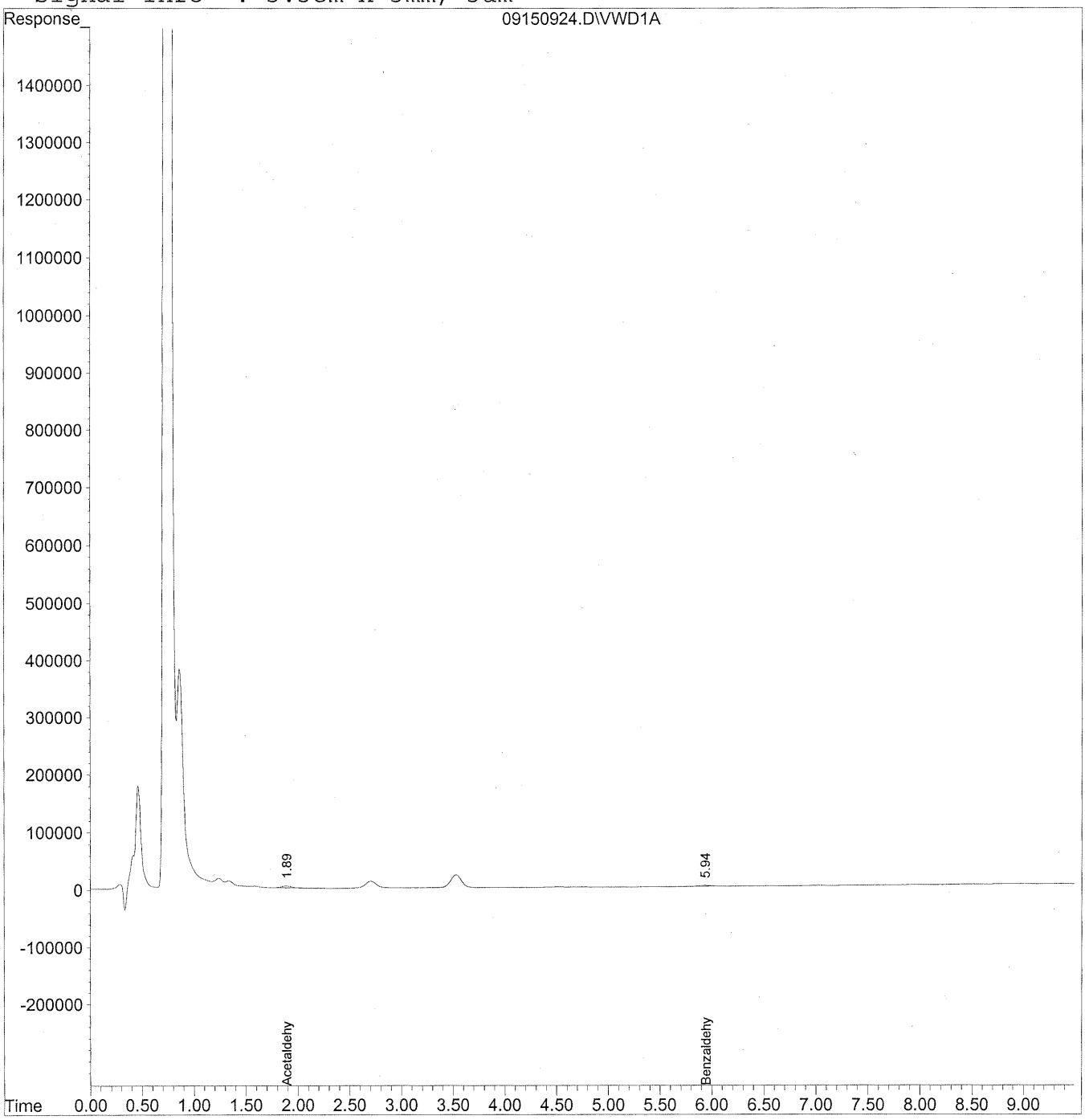
09150933.D TO110909.M Fri Sep 18 11:23:23 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150924.D Vial: 119
Acq On : 15-Sep-2009, 12:57 Operator: MD
Sample : P0903144-005 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 13:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150924.D Vial: 119
Acq On : 15-Sep-2009, 12:57 Operator: MD
Sample : P0903144-005 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 13:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	0.00	0	N.D.	ng/ml
2)	Acetaldehyde	1.89	195241	30.033	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	5.94	143209	52.489	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102713**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-006

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15/09
Desorption Volume: 1.0 ml
Volume Sampled: NA Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.
NA = Not applicable.

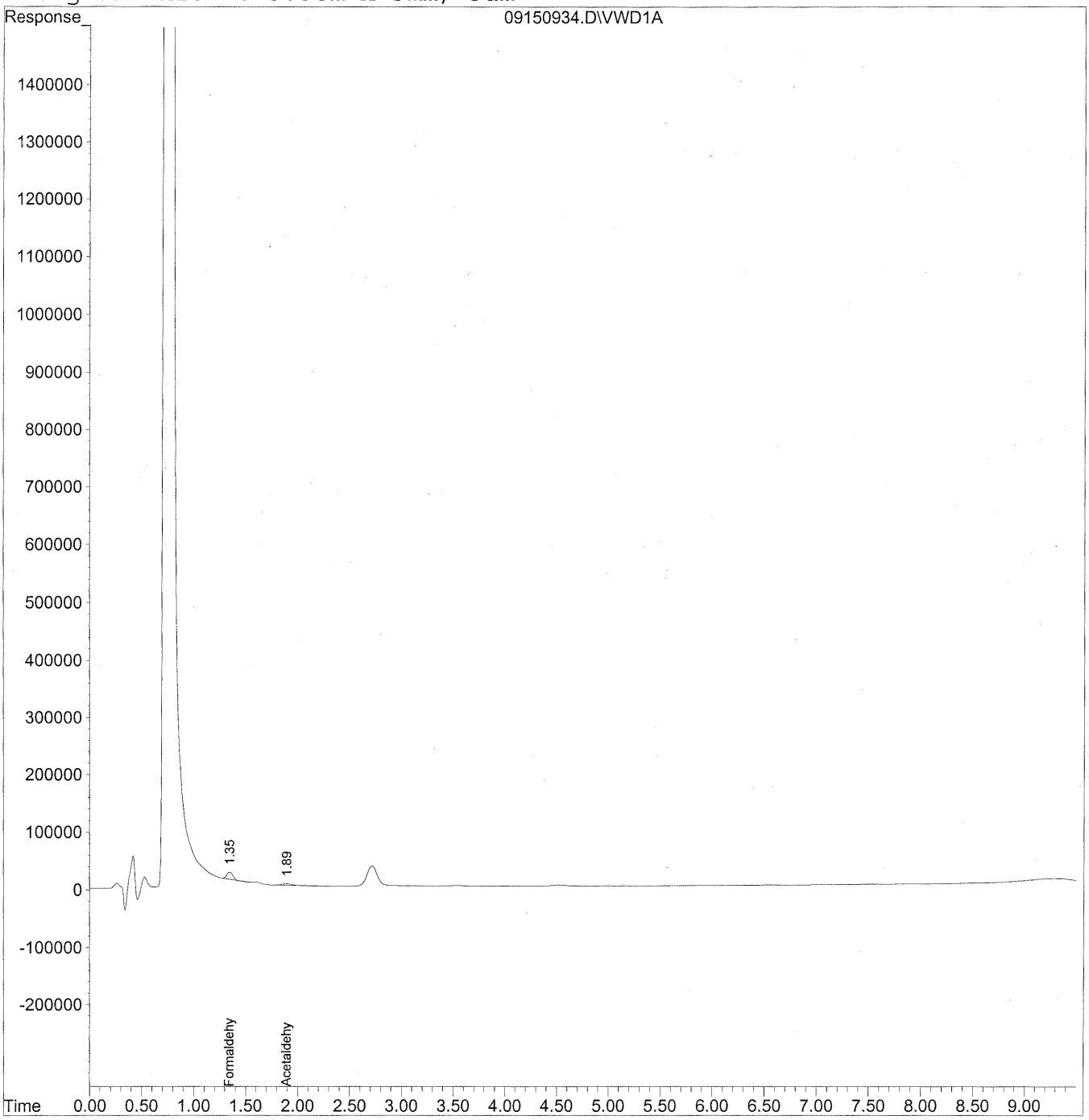
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150934.D Vial: 127
Acq On : 15-Sep-2009, 14:57 Operator: MD
Sample : P0903144-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:23 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150934.D Vial: 127
Acq On : 15-Sep-2009, 14:57 Operator: MD
Sample : P0903144-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:23 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	471449	52.762	ng/ml
2)	Acetaldehyde	1.90	144469	22.223	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

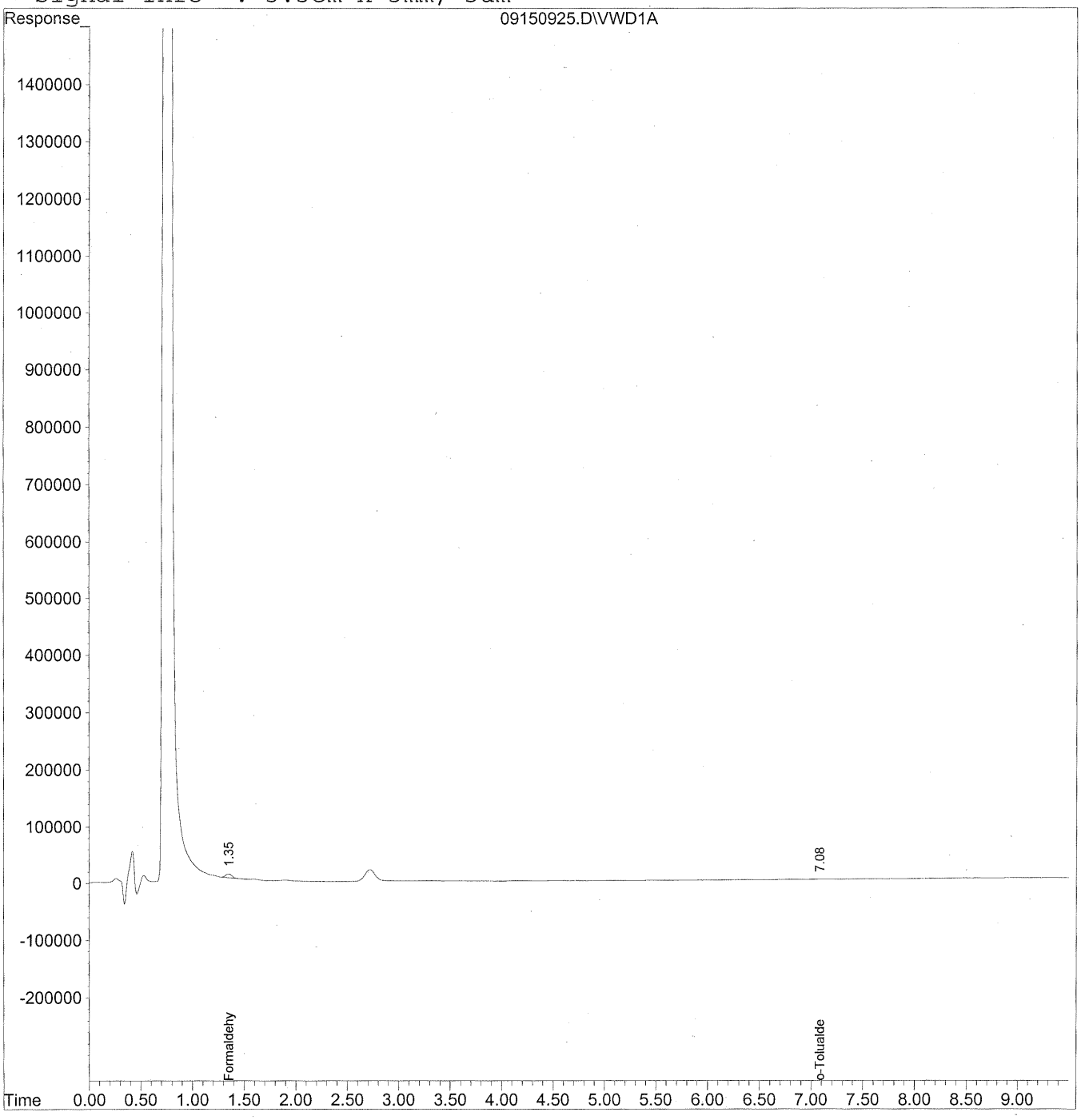
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150925.D Vial: 120
Acq On : 15-Sep-2009, 13:09 Operator: MD
Sample : P0903144-006 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:13 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150925.D Vial: 120
Acq On : 15-Sep-2009, 13:09 Operator: MD
Sample : P0903144-006 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:13 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	261983	29.320	ng/ml
2)	Acetaldehyde	0.00	0	N.D.	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	7.09	29511	13.447	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **102714**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P0903144-007

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: 9/1/09
Date Received: 9/4/09
Date Analyzed: 9/15/09
Desorption Volume: 1.0 ml
Volume Sampled: NA Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.
NA = Not applicable.

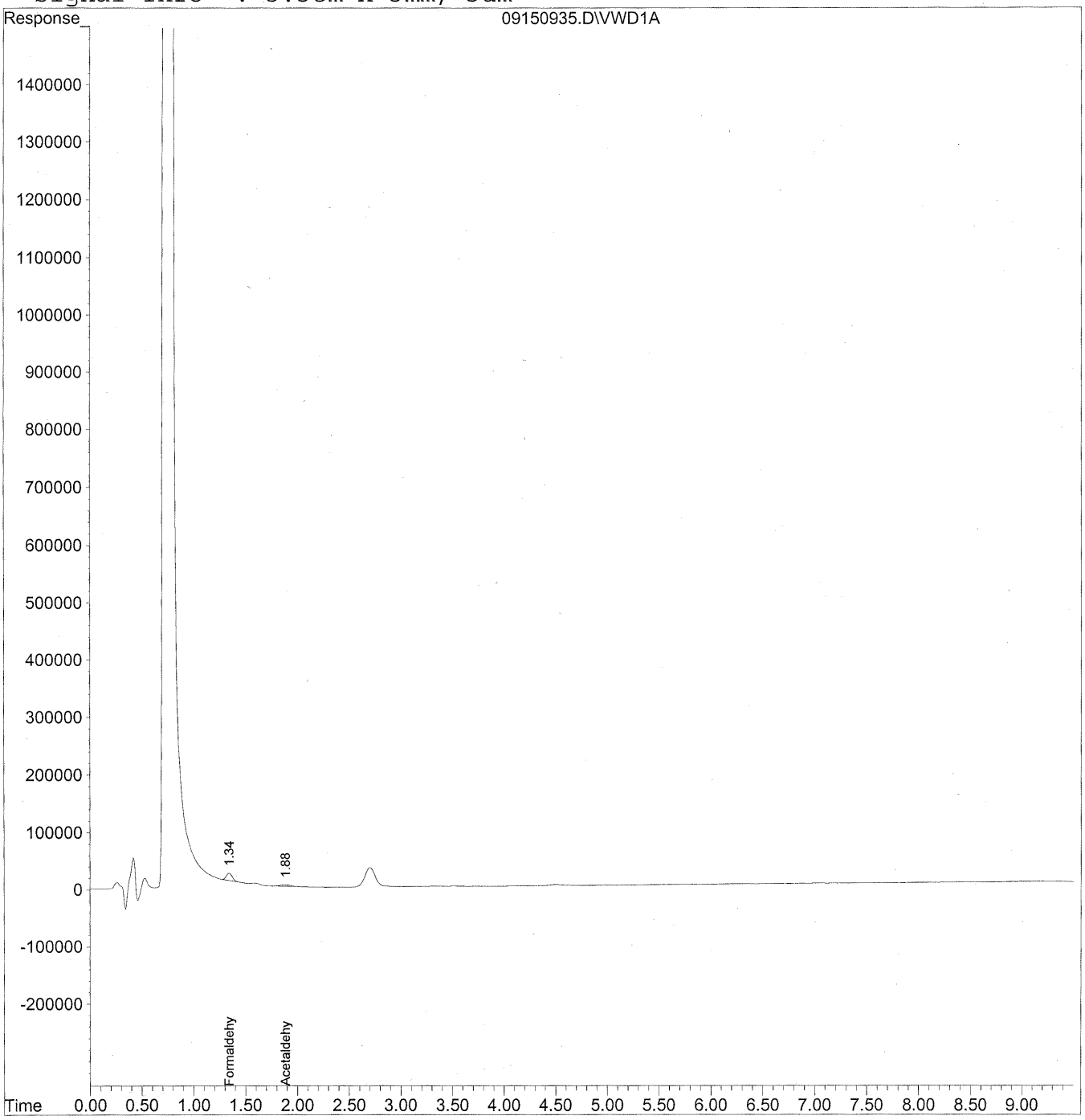
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150935.D Vial: 128
Acq On : 15-Sep-2009, 15:09 Operator: MD
Sample : P0903144-007 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:24 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150935.D Vial: 128
Acq On : 15-Sep-2009, 15:09 Operator: MD
Sample : P0903144-007 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:24 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	520006	58.196	ng/ml
2)	Acetaldehyde	1.89	152019	23.385	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

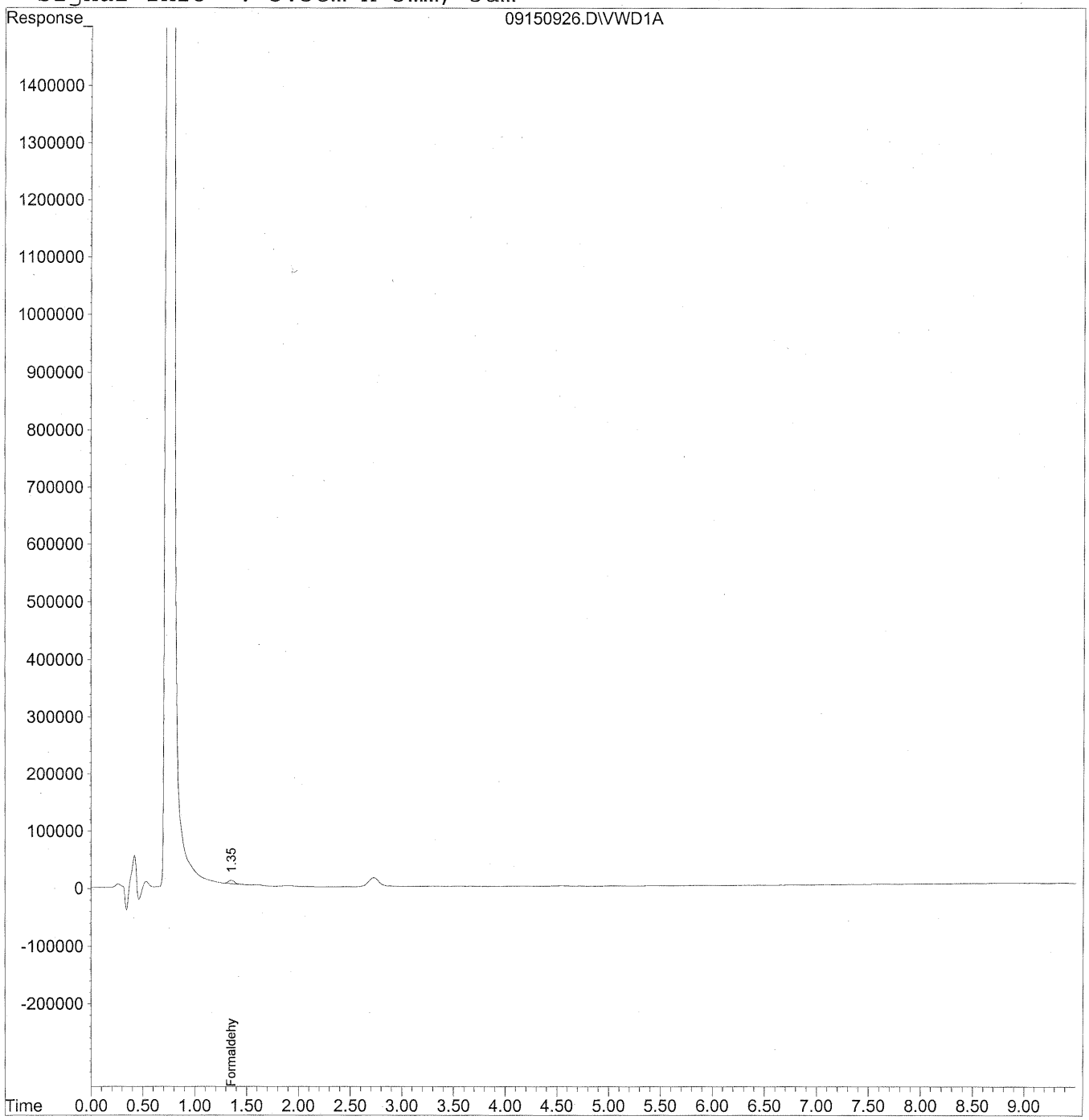
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150926.D Vial: 121
Acq On : 15-Sep-2009, 13:21 Operator: MD
Sample : P0903144-007 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:13 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150926.D Vial: 121
Acq On : 15-Sep-2009, 13:21 Operator: MD
Sample : P0903144-007 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:13 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	233116	26.089	ng/ml
2)	Acetaldehyde	0.00	0	N.D.	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **16512**

CAS Project ID: P0903144
CAS Sample ID: P090915-MB

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: **BC**

Date Collected: NA
Date Received: NA
Date Analyzed: 09/15/09
Desorption Volume: 1.0 ml
Volume Sampled: NA Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected.
NA = Not applicable.

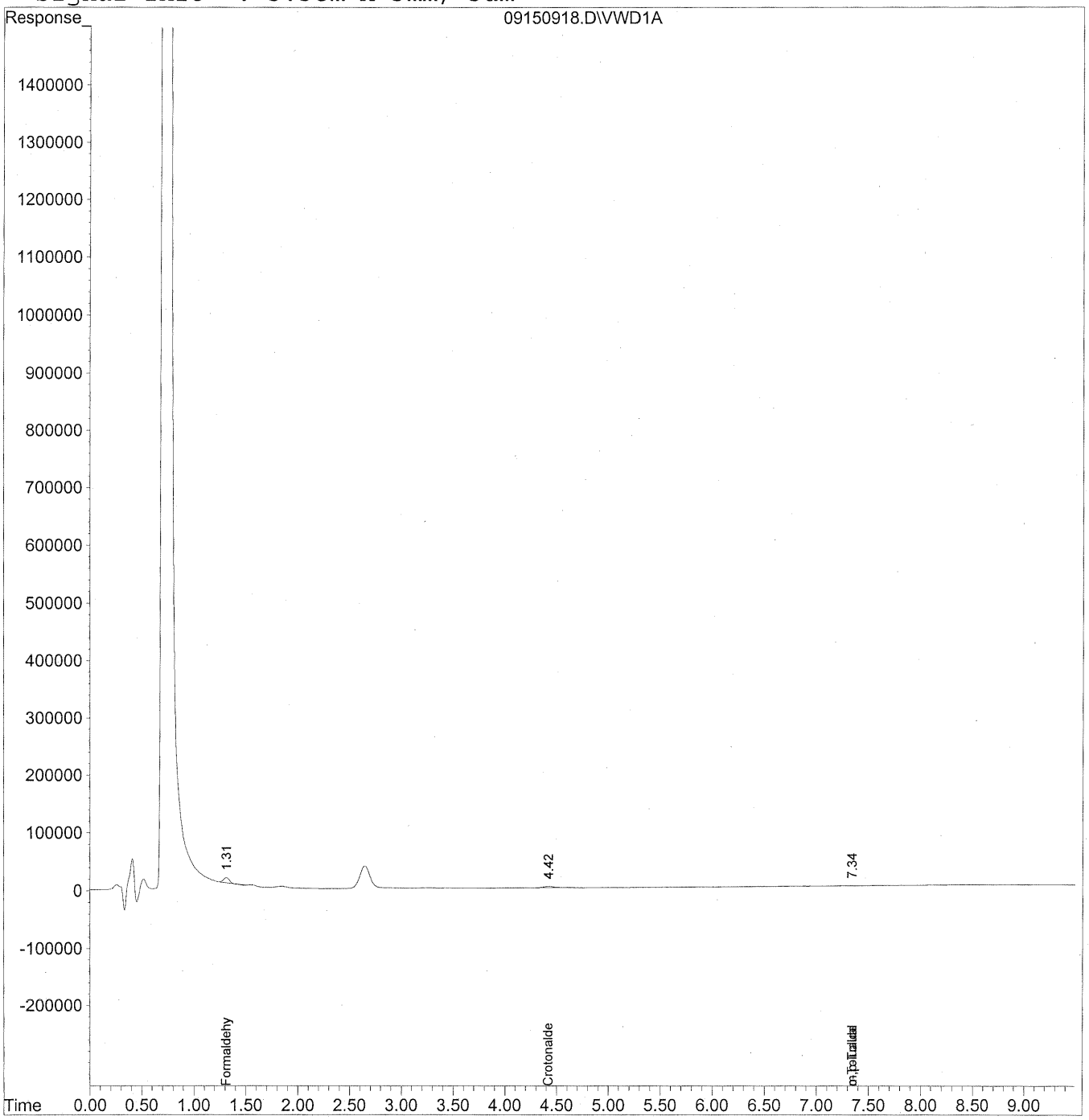
Verified By: _____ Date: 9/18/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150918.D Vial: 113
Acq On : 15-Sep-2009, 11:44 Operator: MD
Sample : MB-4 front 1.0ml lot 5855/5994 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:07 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150918.D Vial: 113
Acq On : 15-Sep-2009, 11:44 Operator: MD
Sample : MB-4 front 1.0ml lot 5855/5994 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:07 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

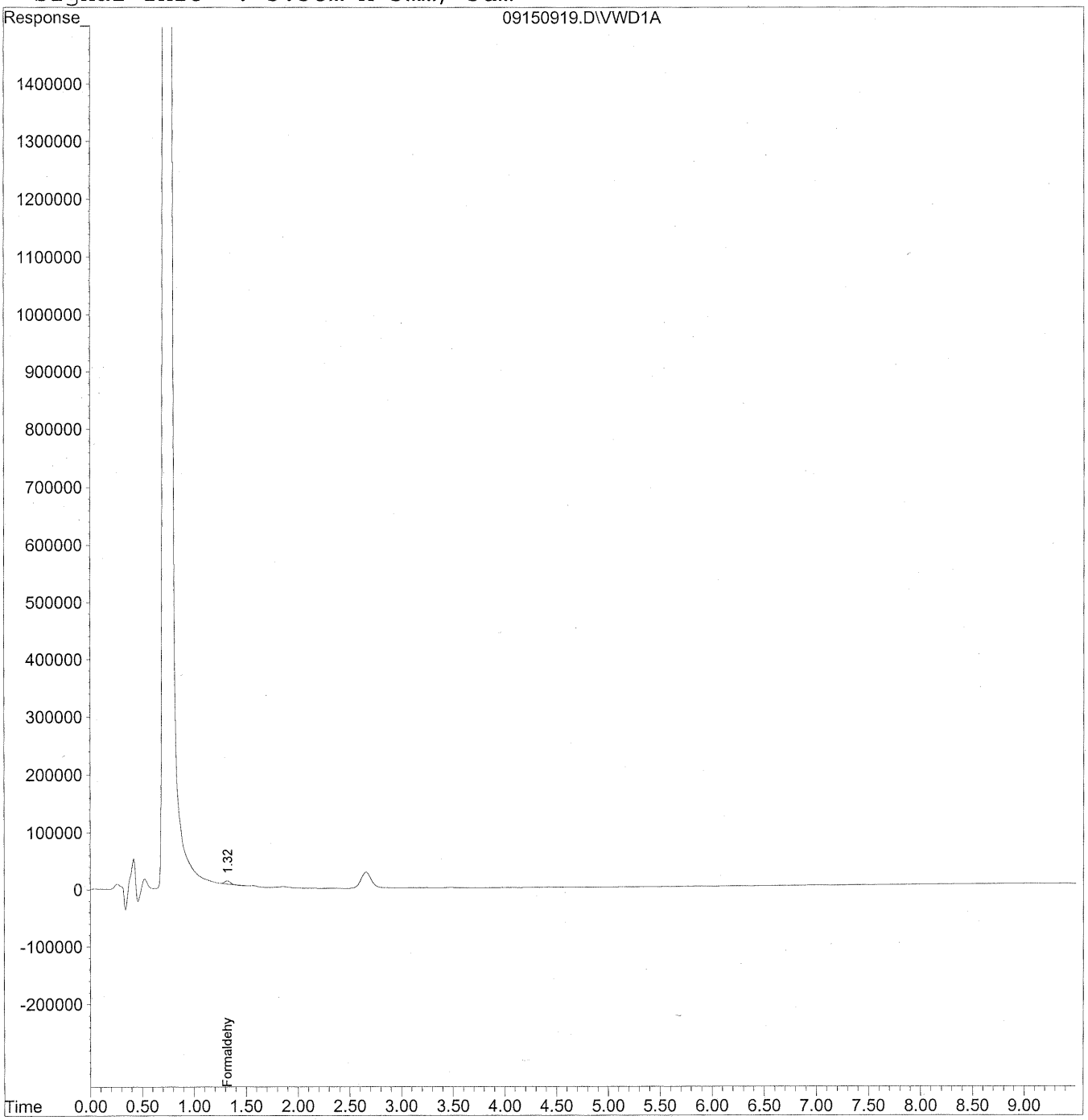
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.31	323571	36.212	ng/ml
2)	Acetaldehyde	0.00	0	N.D.	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	4.42	178726	44.026	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	7.34f	9537	4.346	ng/ml
10)	m,p-Tolualdehyde	7.34	9537	4.152	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150919.D Vial: 114
Acq On : 15-Sep-2009, 11:56 Operator: MD
Sample : MB-4 back 1.0ml lot 5855/5994 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:07 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150919.D Vial: 114
Acq On : 15-Sep-2009, 11:56 Operator: MD
Sample : MB-4 back 1.0ml lot 5855/5994 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:07 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.32	208195	23.300	ng/ml
2)	Acetaldehyde	0.00	0	N.D.	ng/ml
3)	Propionaldehyde	0.00	0	N.D.	ng/ml
4)	Crotonaldehyde	0.00	0	N.D.	ng/ml
5)	Butyraldehyde	0.00	0	N.D.	ng/ml
6)	Benzaldehyde	0.00	0	N.D.	ng/ml
7)	Isovaleraldehyde	0.00	0	N.D.	ng/ml
8)	Valeraldehyde	0.00	0	N.D.	ng/ml
9)	o-Tolualdehyde	0.00	0	N.D.	ng/ml
10)	m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11)	Hexaldehyde	0.00	0	N.D.	ng/ml
12)	2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

INITIAL CALIBRATION STANDARDS

Response Factor Report VWD

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 11 13:54:46 2008

Calibration Files
50 =09090910.D 100 =09090913.D 500 =09090916.D
1500 =09090919.D 5000 =09090922.D 10 =09090925.D

	Compound	50	100	500	1500	5000	10	Avg	%RSD
1)	Formaldehyde	9.033	8.595	8.515	9.020	9.302	9.148	8.935 E3	3.50
2)	Acetaldehyde	6.537	6.232	6.129	6.593	6.799	6.715	6.501 E3	4.10
3)	Propionaldehyde	5.378	4.996	5.013	5.195	5.337	5.268	5.198 E3	3.13
4)	Crotonaldehyde	3.974	3.795	3.909	4.099	4.319	4.261	4.060 E3	5.04
5)	Butyraldehyde	4.071	3.828	3.819	4.080	4.290	4.229	4.053 E3	4.86
6)	Benzaldehyde	2.793	2.509	2.569	2.745	2.894	2.860	2.728 E3	5.74
7)	Isovaleraldehyde	3.594	3.260	3.257	3.437	3.577	3.525	3.442 E3	4.42
8)	Valeraldehyde	3.385	3.277	3.176	3.434	3.588	3.539	3.400 E3	4.58
9)	o-Tolualdehyde	2.114	1.981	2.037	2.249	2.401	2.386	2.195 E3	8.13
10)	m,p-Tolualdehyde	2.187	2.029	2.198	2.391	2.507	2.470	2.297 E3	8.18
11)	Hexaldehyde	2.976	2.854	2.845	2.973	3.086	3.031	2.961 E3	3.24
12)	2,5-Dimethylbenzald	1.800	1.761	1.922	2.067	2.228	2.194	1.995 E3	9.95

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(#) = Out of Range

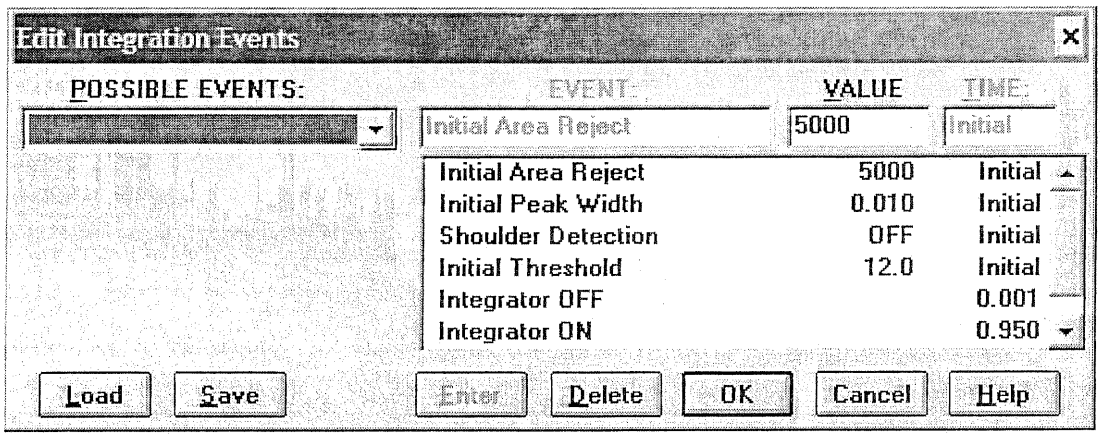
Calibration Status Report VWD

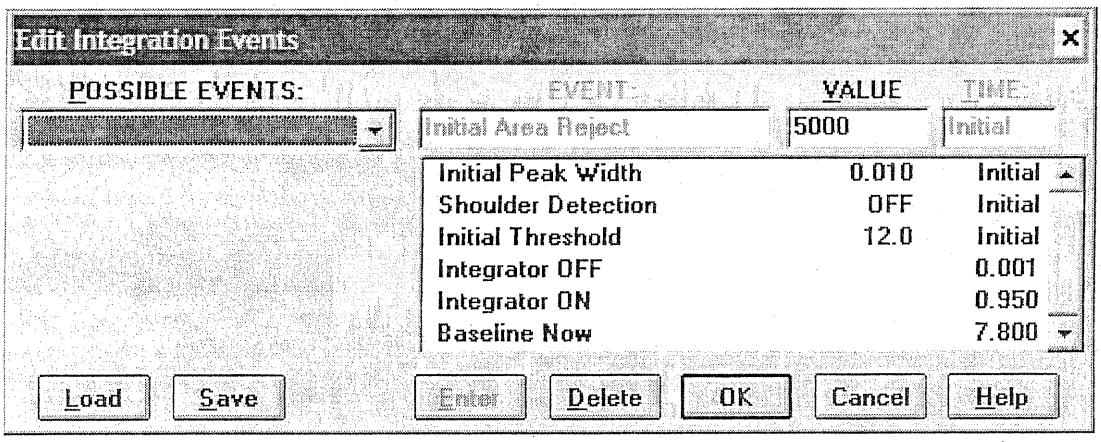
Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090910.D
2	100	100.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090913.D
3	500	500.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090916.D
4	1500	1500.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090919.D
5	5000	5000.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090922.D
6	10	10000.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090924.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Sep 10 08:49 2009	Sep 10 08:49 19109	09-Sep-2009, 15:43
2	100	Sep 10 09:03 2009	Sep 10 09:02 19109	09-Sep-2009, 16:17
3	500	Sep 10 08:54 2009	Sep 10 08:54 19109	09-Sep-2009, 16:51
4	1500	Sep 10 08:56 2009	Sep 10 08:56 19109	09-Sep-2009, 17:26
5	5000	Sep 10 08:58 2009	Sep 10 08:58 19109	09-Sep-2009, 18:00
6	10	Sep 10 08:59 2009	Sep 10 08:59 19109	09-Sep-2009, 18:23

TO110909.M Thu Sep 10 10:45:40 2009


Edit Integration Events
POSSIBLE EVENTS:
EVENT:
VALUE
TIME:
Initial Area Reject
5000
Initial
Initial Area Reject 5000 Initial
Initial Peak Width 0.010 Initial
Shoulder Detection OFF Initial
Initial Threshold 12.0 Initial
Integrator OFF 0.001
Integrator ON 0.950
Load
Save
Enter
Delete
OK
Cancel
Help


Edit Integration Events
POSSIBLE EVENTS:
EVENT:
VALUE
TIME:
Initial Area Reject
5000
Initial
Initial Peak Width 0.010 Initial
Shoulder Detection OFF Initial
Initial Threshold 12.0 Initial
Integrator OFF 0.001
Integrator ON 0.950
Baseline Now 7.800
Load
Save
Enter
Delete
OK
Cancel
Help

TO-11A Aldehyde-DNPH Stock Solution Standard S21-06300801

Source: AccuStandard Inc.
Catalog No: M-8315-R2-DNPH
Lot : B8060121
Solvent: ACN
Expiration Date: 06/12/11

	MW	Aldehyde-DNPH MW*	Manufacturer Prepared Concentration as Aldehyde-DNPH (ug/mL)	Calculated Concentration as Aldehyde (ug/mL)	ICV S21-07270907 (nominal ng/mL)	ICV S21-07270907 (Actual, ng/mL)	% Diff
Formaldehyde	30.03	210.03	100	14.30	1430	1453.52	1.64%
Acetaldehyde	44.05	224.05	100.2	19.70	1970	2007.42	1.90%
Acetone	58.08	238.08	100.2	24.44	2444	not reported	
Acrolein	56.06	236.06	103.1	24.48	2448	not reported	
Propionaldehyde	58.08	238.08	100.2	24.44	2444	2388.13	2.29%
Crotonaldehyde	70.09	250.09	100.2	28.08	2808	2879.18	2.53%
Butyraldehyde	72.11	252.11	100	28.60	2860	2877.59	0.61%
Benzaldehyde	106.12	286.12	100	37.09	3709	3693.25	0.42%
Isovaleraldehyde	86.13	266.13	100.2	32.43	3243	3227.07	0.49%
Valeraldehyde	86.13	266.13	100.1	32.40	3240	3280.39	1.25%
o-Tolualdehyde	120.15	300.15	100.1	40.07	4007	4053.17	1.15%
m,p-Tolualdehyde	120.15	300.15	100.3	80.30	8030	8394.52	4.54%
Hexaldehyde	100.16	280.16	100.3	35.86	3586	3443.52	3.97%
2,5-Dimethylbenzaldehyde	134.18	314.18	100.3	42.84	4284	4423.49	3.26%

(* MW of DNPH is 198g/mol. The result of a nucleophilic reaction of aldehyde & DNPH is a hydrazone derivative with the loss of H20, 18g/mol)

COLUMBIA ANALYTICAL SERVICES, INC.

Method: TO-11A
Analyst: MD

Printed : 09/10/09
Instrument : LC#02
Date Analysis : 09/09/09
Detector : UV-VIS 360
Sample Amount : 3ul

CALIBRATION RESPONSE FACTOR SUMMARY

Calibration Level	Form-Aldehyde	% rpd	Acet-Aldehyde	% rpd	Propion-Aldehyde	% rpd	Croton-Aldehyde	% rpd	Butyr-Aldehyde	% rpd	Benz-Aldehyde	% rpd
50ng/ml TO-11A S2	443088	1.89%	311721	4.62%	257497	4.24%	205520	3.43%	199284	2.09%	136041	2.60%
50ng/ml TO-11A S2	447251	0.97%	327663	0.25%	268082	0.31%	200887	1.10%	217482	6.85%	140658	0.71%
50ng/ml TO-11A S2	464552	2.86%	341116	4.37%	281140	4.55%	189710	4.53%	193856	4.76%	142307	1.89%
100ng/ml TO-11A S	857936	0.18%	602866	3.27%	495705	0.77%	389577	2.65%	390139	1.92%	249897	0.42%
100ng/ml TO-11A S	856527	0.34%	664731	6.66%	489979	1.92%	375407	1.09%	399611	4.39%	241433	3.79%
100ng/ml TO-11A S	864000	0.53%	602096	3.39%	512978	2.69%	373596	1.56%	358623	6.31%	261486	4.20%
500ng/ml TO-11A S	4290125	0.77%	3109621	1.47%	2494796	0.47%	1900371	2.76%	1886701	1.19%	1323186	3.01%
500ng/ml TO-11A S	4242920	0.34%	2996333	2.23%	2520033	0.54%	1968873	0.75%	1894865	0.76%	1238947	3.54%
500ng/ml TO-11A S	4239441	0.42%	3088021	0.76%	2504937	0.07%	1993623	2.01%	1946571	1.95%	1291253	0.53%
1500ng/ml TO-11A	13461963	0.50%	9836721	0.53%	7740242	0.67%	6180043	0.51%	6161274	0.67%	4059200	1.43%
1500ng/ml TO-11A	13578339	0.36%	9942887	0.54%	7876607	1.08%	6053894	1.54%	6038847	1.33%	4163474	1.11%
1500ng/ml TO-11A	13548320	0.14%	9888425	0.01%	7759817	0.42%	6211709	1.03%	6160753	0.66%	4131112	0.32%
5000ng/ml TO-11A	46422998	0.19%	33949113	0.13%	26460164	0.85%	21469148	0.59%	21371531	0.37%	14455457	0.09%
5000ng/ml TO-11A	46464064	0.10%	33977292	0.05%	26758092	0.27%	21604348	0.03%	21444271	0.03%	14435192	0.23%
5000ng/ml TO-11A	46648983	0.29%	34054104	0.18%	26843474	0.59%	21717189	0.56%	21538832	0.41%	14515721	0.32%
10000ng/ml TO-11A	91542792	0.07%	67198566	0.07%	52731710	0.10%	42623472	0.03%	42304249	0.04%	28602353	0.02%
10000ng/ml TO-11A	91301664	0.20%	67004053	0.22%	52551284	0.24%	42531897	0.18%	42207282	0.19%	28552063	0.15%
10000ng/ml TO-11A	91595894	0.13%	67244158	0.14%	52752024	0.14%	42676337	0.15%	42347195	0.14%	28631645	0.13%

COLUMBIA ANALYTICAL SERVICES, INC.

Method: TO-11A
Analyst:

Printed : 09/10/09
Instrument : LC#02
Date Analysis : 09/09/09
Detector : UV-VIS 360
Sample Amount : 3ul

CALIBRATION RESPONSE FACTOR SUMMARY

Calibration Level	Isovaler-Aldehyde	% rpd	Valer-Aldehyde	% rpd	o-Tolu-Aldehyde	% rpd	m,p-Tolu-Aldehyde	% rpd	Hex-Aldehyde	% rpd	2,5-Dimethl benz-Aldehyde	% rpd
50ng/ml TO-11A S2	186226	3.64%	166401	1.67%	109996	4.04%	216426	1.05%	145487	2.24%	84766	5.84%
50ng/ml TO-11A S2	175760	2.19%	171974	1.62%	93386	11.67%	227448	3.99%	145697	2.10%	96663	7.37%
50ng/ml TO-11A S2	177082	1.45%	169317	0.05%	113786	7.63%	212270	2.95%	155285	4.34%	88645	1.53%
100ng/ml TO-11A S	323665	0.72%	320426	2.21%	207105	4.56%	397976	1.92%	282439	1.03%	170783	3.03%
100ng/ml TO-11A S	313564	3.82%	335005	2.24%	188768	4.70%	416110	2.55%	285615	0.08%	182724	3.75%
100ng/ml TO-11A S	340775	4.53%	327561	0.03%	198353	0.14%	403186	0.63%	288074	0.95%	174836	0.73%
500ng/ml TO-11A S	1631123	0.17%	1598180	0.63%	1023918	0.55%	2205841	0.36%	1425262	0.21%	964881	0.39%
500ng/ml TO-11A S	1614213	0.87%	1593172	0.32%	1018615	0.03%	2181093	0.76%	1423115	0.06%	956005	0.53%
500ng/ml TO-11A S	1639714	0.70%	1572954	0.95%	1012283	0.59%	2206747	0.40%	1418487	0.27%	962409	0.14%
1500ng/ml TO-11A	5115478	0.79%	5104937	0.89%	3347391	0.77%	7133126	0.55%	4465907	0.15%	3088612	0.37%
1500ng/ml TO-11A	5182178	0.51%	5176264	0.50%	3396097	0.67%	7179077	0.09%	4448983	0.23%	3056583	1.41%
1500ng/ml TO-11A	5170579	0.28%	5170597	0.39%	3376687	0.10%	7206393	0.47%	4462344	0.07%	3155386	1.78%
5000ng/ml TO-11A	17854488	0.18%	17905508	0.18%	11990582	0.11%	25039167	0.12%	15466841	0.25%	11107870	0.29%
5000ng/ml TO-11A	17875029	0.07%	17921465	0.09%	11986554	0.15%	25032033	0.15%	15380456	0.31%	11113181	0.24%
5000ng/ml TO-11A	17932725	0.25%	17988106	0.28%	12035186	0.26%	25134428	0.26%	15437631	0.06%	11198210	0.52%
10000ng/ml TO-11A	35277028	0.07%	35412579	0.06%	23892692	0.14%	49431359	0.07%	30345892	0.11%	21989696	0.21%
10000ng/ml TO-11A	35194712	0.17%	35338059	0.15%	23813504	0.19%	49315533	0.17%	30246038	0.22%	21823086	0.55%
10000ng/ml TO-11A	35288997	0.10%	35418570	0.08%	23869930	0.05%	49446486	0.10%	30343150	0.10%	22018475	0.34%

AVERAGE RESPONSE FACTOR

	Form-Aldehyde	Acet-Aldehyde	Propion-Aldehyde	Croton-Aldehyde	Butyr-Aldehyde	Benz-Aldehyde
50ng/ml TO-11A S	451630	326833	268906	198706	203541	139669
100ng/ml TO-11A S	859488	623231	499554	379527	382791	250939
500ng/ml TO-11A S	4257495	3064658	2506589	1954289	1909379	1284462
1500ng/ml TO-11A	13529541	9889344	7792222	6148549	6120291	4117929
5000ng/ml TO-11A	46512015	33993503	26687243	21596895	21451545	14468790
10000ng/ml TO-11L	91480117	67148926	52678339	42610569	42286242	28595354

AVERAGE RESPONSE FACTOR

	Isovaler-Aldehyde	Valer-Aldehyde	o-Tolu-Aldehyde	m,p-Tolu-Aldehyde	Hex-Aldehyde	2,5-Dimethl benz-Aldehyde
50ng/ml TO-11A S	179689	169231	105723	218715	148823	90025
100ng/ml TO-11A S	326001	327664	198075	405757	285376	176114
500ng/ml TO-11A S	1628350	1588102	1018272	2197894	1422288	961098
1500ng/ml TO-11A	5156078	5150599	3373392	7172865	4459078	3100194
5000ng/ml TO-11A	17887414	17938360	12004107	25068543	15428309	11139754
10000ng/ml TO-11L	35253579	35389736	23858709	49397793	30311693	21943752

COMPOUND	50	100	500	1500	5000	10000	AVERAGE	SD	%RSD
Formaldehyde	9.033E+03	8.595E+03	8.515E+03	9.020E+03	9.302E+03	9.148E+03	8.935E+03	3.13E+02	3.50%
Acetaldehyde	6.537E+03	6.232E+03	6.129E+03	6.593E+03	6.799E+03	6.715E+03	6.501E+03	2.66E+02	4.10%
Propionaldehyde	5.378E+03	4.996E+03	5.013E+03	5.195E+03	5.337E+03	5.268E+03	5.198E+03	1.62E+02	3.13%
Crotonaldehyde	3.974E+03	3.795E+03	3.909E+03	4.099E+03	4.319E+03	4.261E+03	4.060E+03	2.05E+02	5.04%
Butyraldehyde	4.071E+03	3.828E+03	3.819E+03	4.080E+03	4.290E+03	4.229E+03	4.053E+03	1.97E+02	4.86%
Benzaldehyde	2.793E+03	2.509E+03	2.569E+03	2.745E+03	2.894E+03	2.860E+03	2.728E+03	1.56E+02	5.74%
Isovaleraldehyde	3.594E+03	3.260E+03	3.257E+03	3.437E+03	3.577E+03	3.525E+03	3.442E+03	1.52E+02	4.42%
Valeraldehyde	3.385E+03	3.277E+03	3.176E+03	3.434E+03	3.588E+03	3.539E+03	3.400E+03	1.56E+02	4.58%
o-Tolualdehyde	2.114E+03	1.981E+03	2.037E+03	2.249E+03	2.401E+03	2.386E+03	2.195E+03	1.78E+02	8.13%
m,p-Tolualdehyde	2.187E+03	2.029E+03	2.198E+03	2.391E+03	2.507E+03	2.470E+03	2.297E+03	1.88E+02	8.18%
Hexaldehyde	2.976E+03	2.854E+03	2.845E+03	2.973E+03	3.086E+03	3.031E+03	2.961E+03	9.58E+01	3.24%
2,5-Dimethylbenzaldehyde	1.800E+03	1.761E+03	1.922E+03	2.067E+03	2.228E+03	2.194E+03	1.995E+03	1.98E+02	9.95%

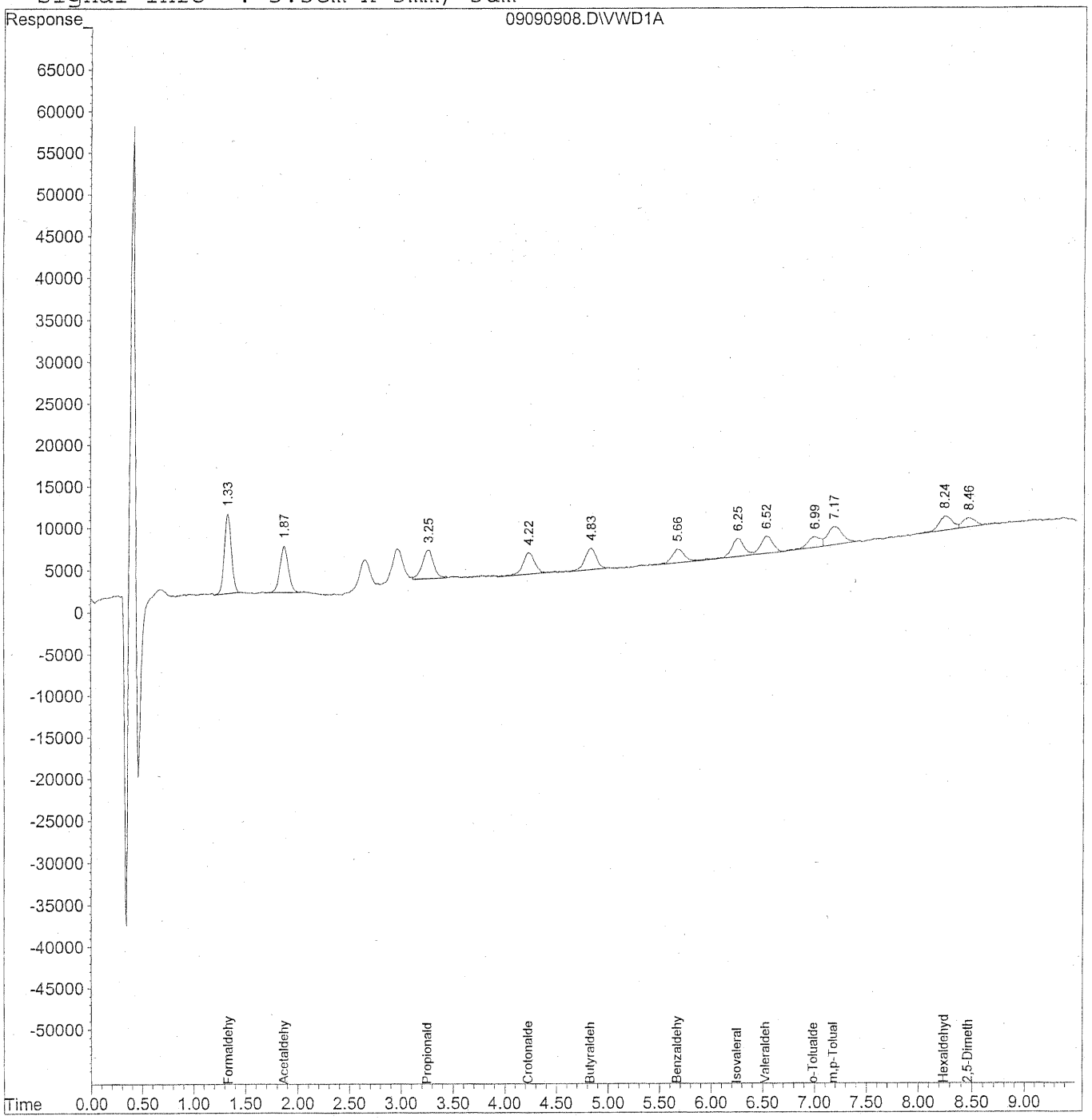
TO-11A CALIBRATION STANDARDS LIST							
50ng/ml TO-11A S21-09080905							
100ng/ml TO-11A S21-09080904							
500ng/ml TO-11A S21-09080903							
1500ng/ml TO-11A S21-09090903							
5000ng/ml TO-11A S21-09080902							
10000ng/ml TO-11A S21-09080901							

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



97

Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

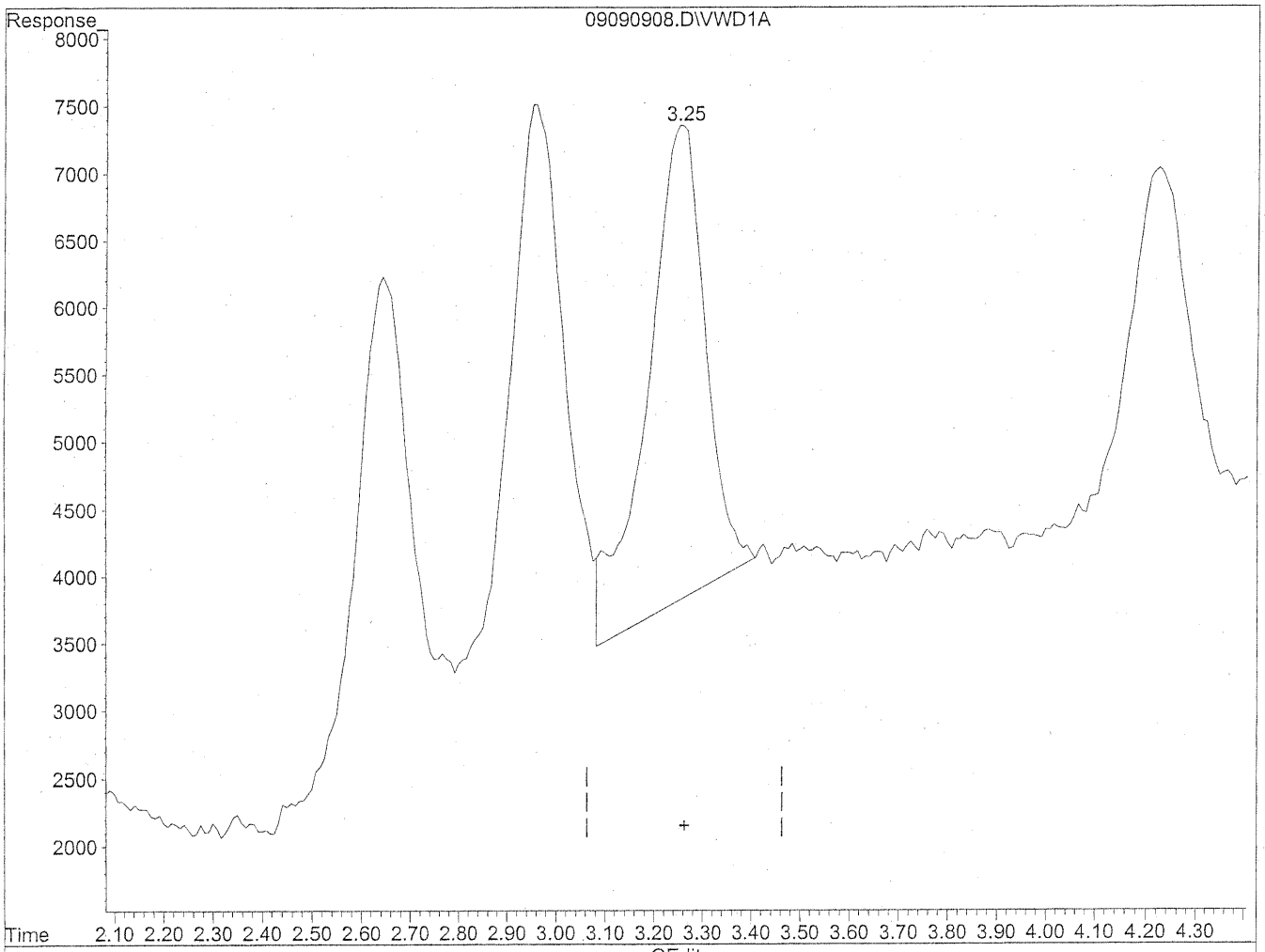
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.33	443088	48.300	ng/ml
2)	Acetaldehyde	1.87	311721	47.262	ng/ml
3)	Propionaldehyde	3.25	257497	49.595	ng/mlm
4)	Crotonaldehyde	4.23	205520	50.553	ng/ml
5)	Butyraldehyde	4.83	199284	48.165	ng/ml
6)	Benzaldehyde	5.67	136041	50.640	ng/ml
7)	Isovaleraldehyde	6.25	186226	53.155	ng/ml
8)	Valeraldehyde	6.53	166401	50.588	ng/ml
9)	o-Tolualdehyde	6.99	109996	48.007	ng/ml
10)	m,p-Tolualdehyde	7.18	216426	93.961	ng/ml
11)	Hexaldehyde	8.24	145487	51.040	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.46	84766	42.867	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:45 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde

3.26min 56.431ng/ml

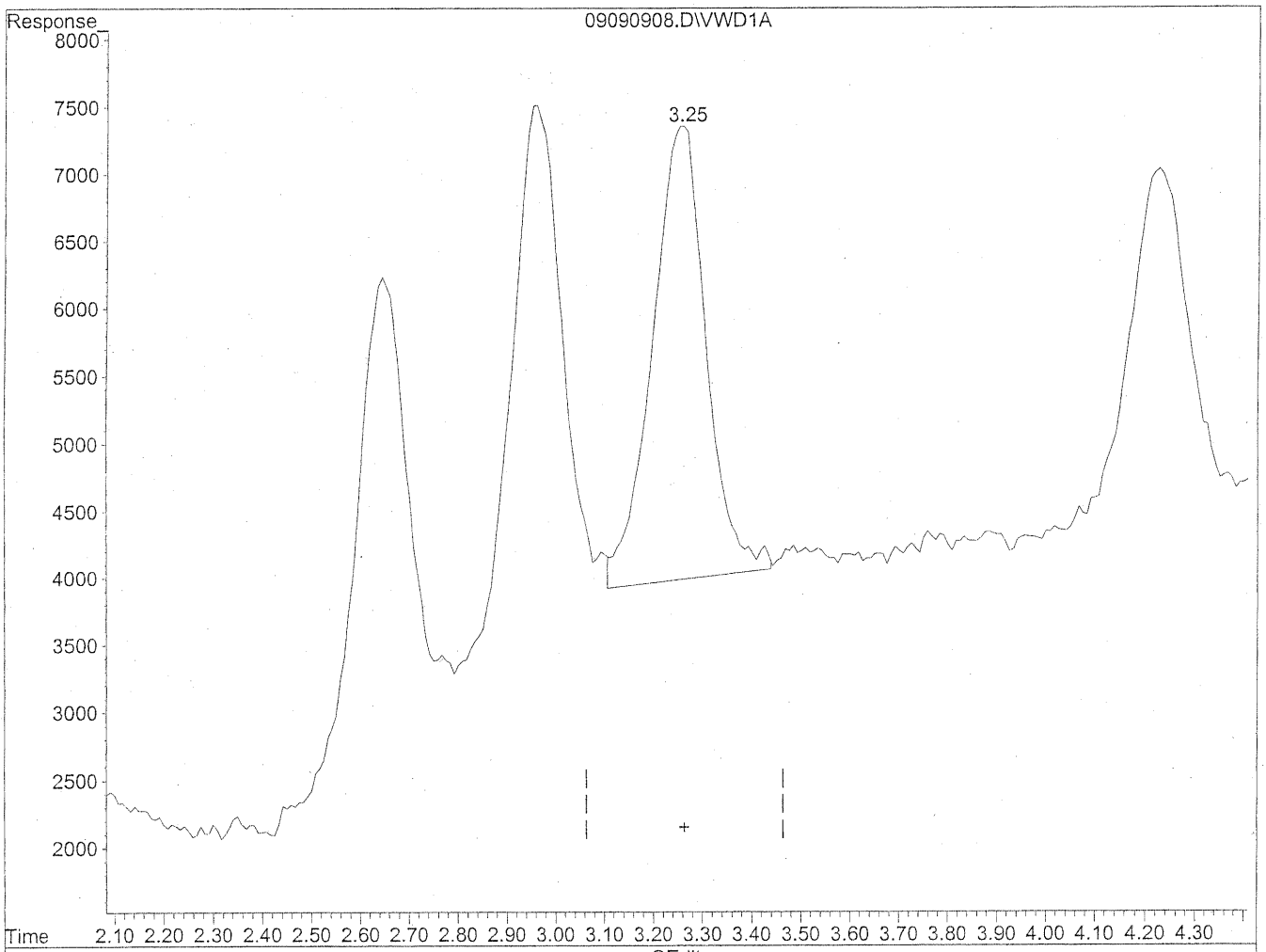
response 292995

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:45 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



QEdit

(3) Propionaldehyde

3.25min 49.595ng/ml m

response 257497

9/10/09

9/10/09

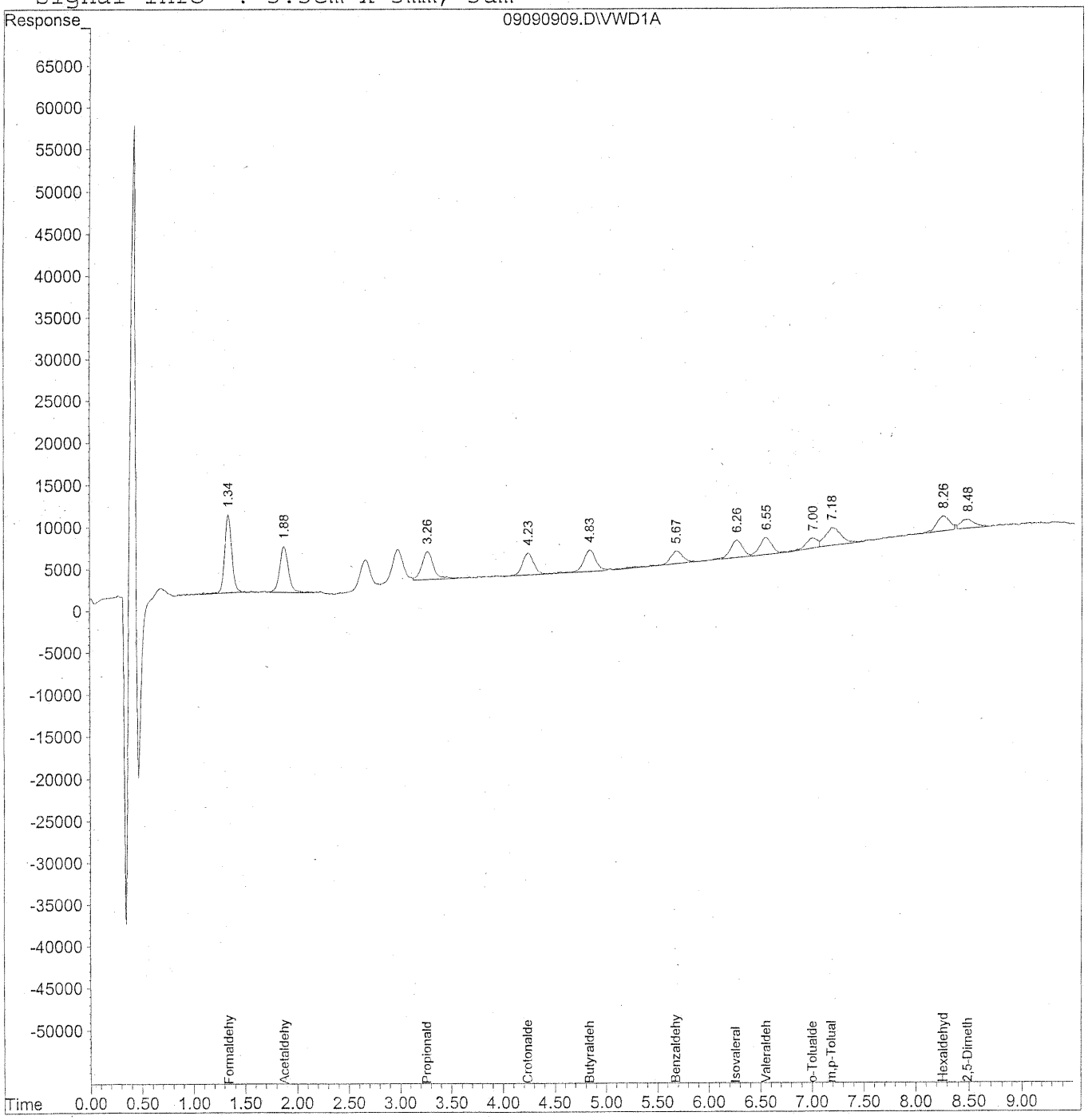
(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

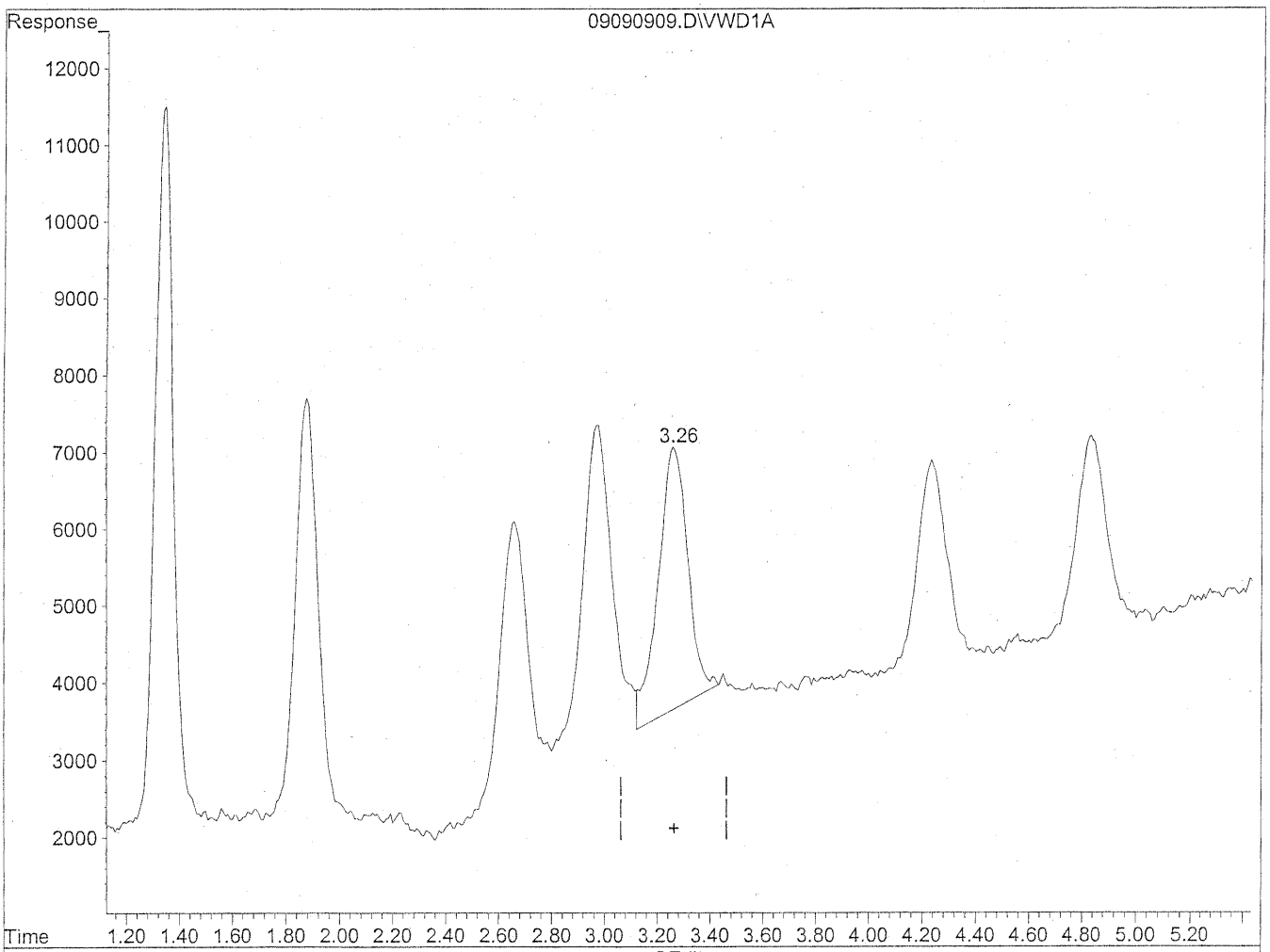
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Formaldehyde	1.34	447251	48.810 ng/ml
2)	Acetaldehyde	1.88	327663	49.697 ng/ml
3)	Propionaldehyde	3.26	268082	51.767 ng/mlm
4)	Crotonaldehyde	4.24	200887	48.943 ng/ml
5)	Butyraldehyde	4.84	217482	52.896 ng/ml
6)	Benzaldehyde	5.68	140658	52.629 ng/ml
7)	Isovaleraldehyde	6.27	175760	49.313 ng/ml
8)	Valeraldehyde	6.55	171974	52.000 ng/ml
9)	o-Tolualdehyde	7.01	93386	40.816 ng/ml
10)	m,p-Tolualdehyde	7.18	227448	98.156 ng/mlm
11)	Hexaldehyde	8.26	145697	49.945 ng/mlm
12)	2,5-Dimethylbenzaldehyde	8.48	96663	49.614 ng/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde

3.26min 51.274ng/ml

response 265532

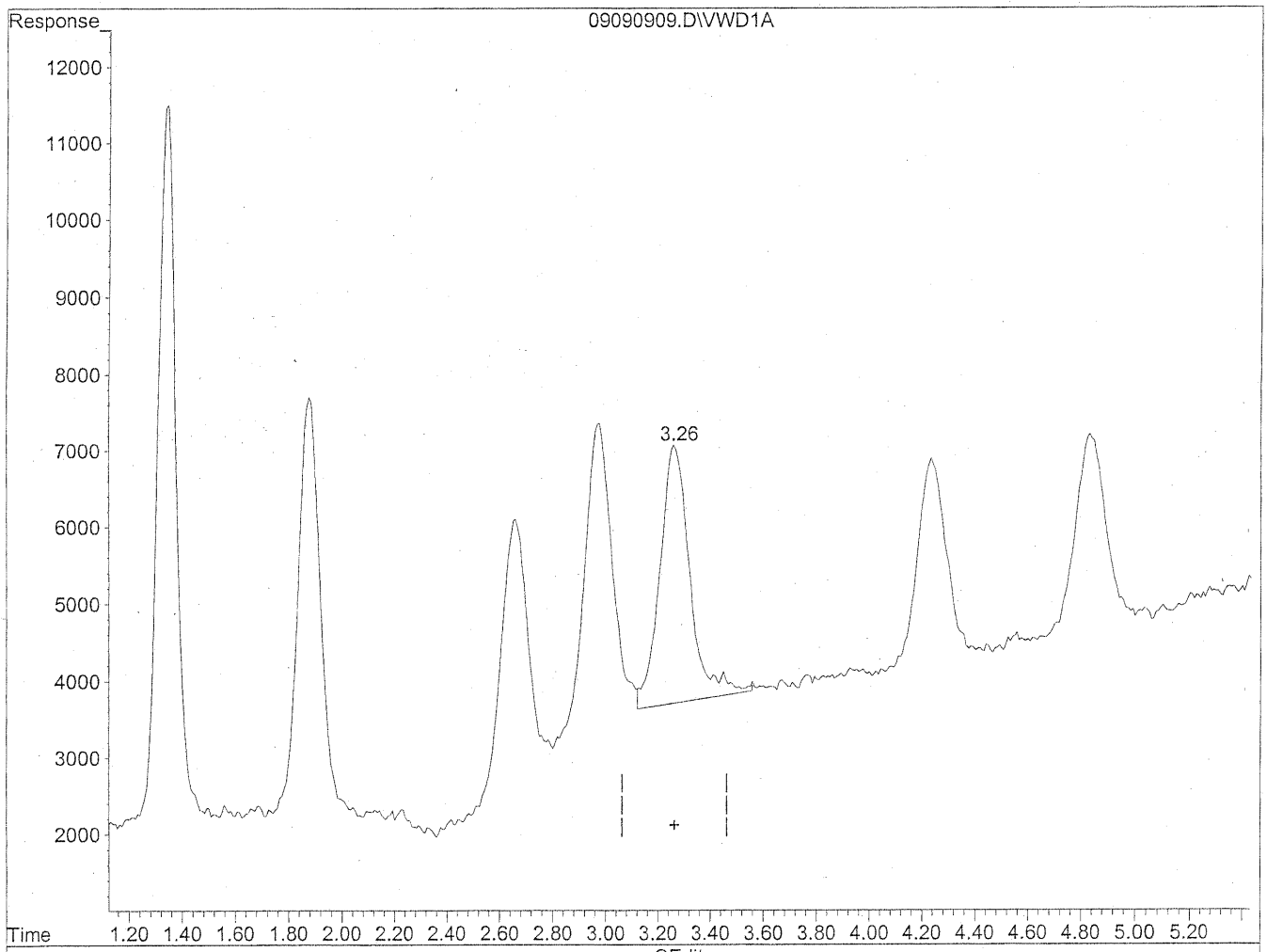
(+) = Expected Retention Time

09090909.D TO110909.M Thu Sep 10 08:46:54 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



QEdit

(3) Propionaldehyde

3.26min 51.767ng/ml m

response 268082

9/10/09

9/10/09

104

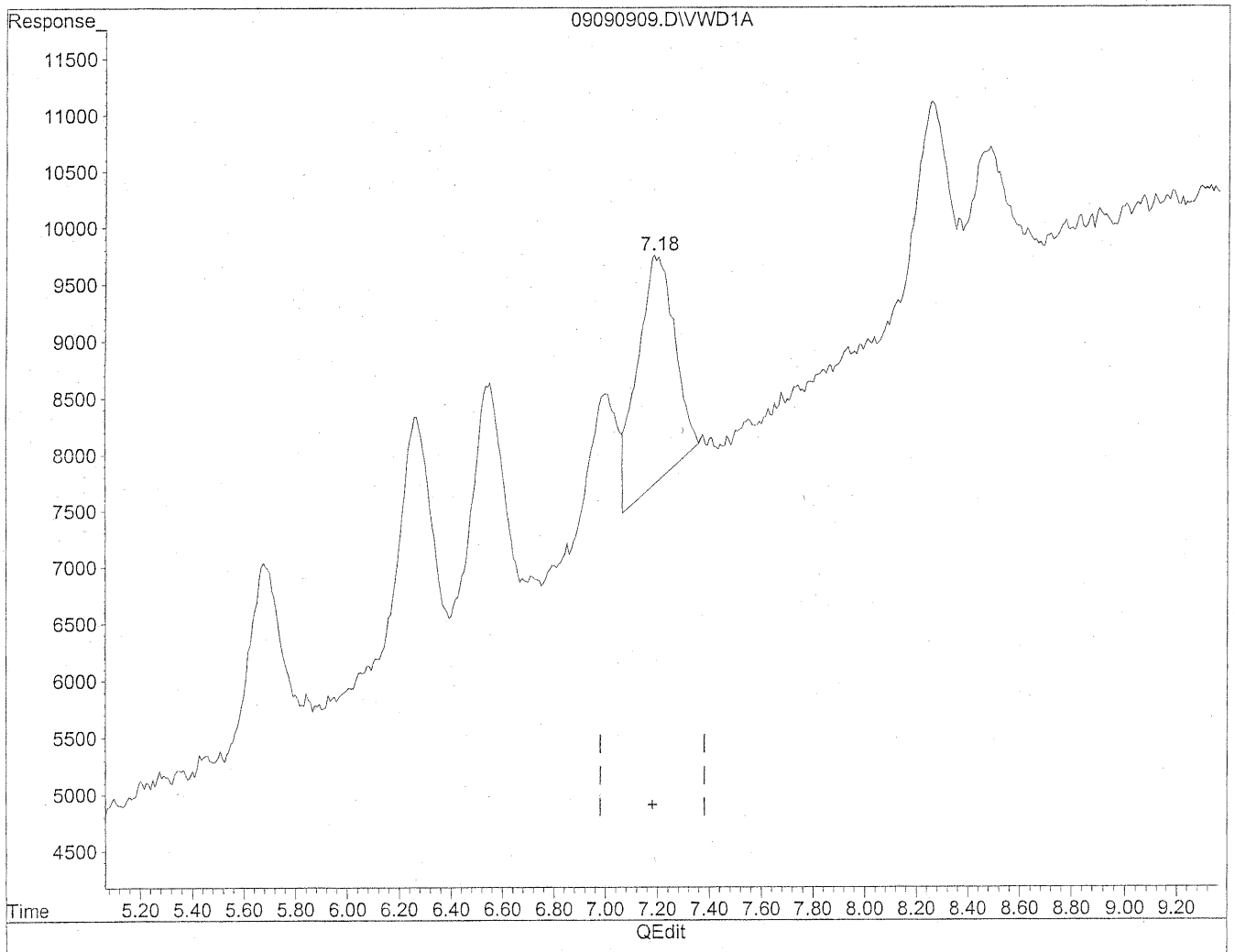
(+) = Expected Retention Time

09090909.D TO110909.M Thu Sep 10 08:47:01 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde

7.19min 86.656ng/ml

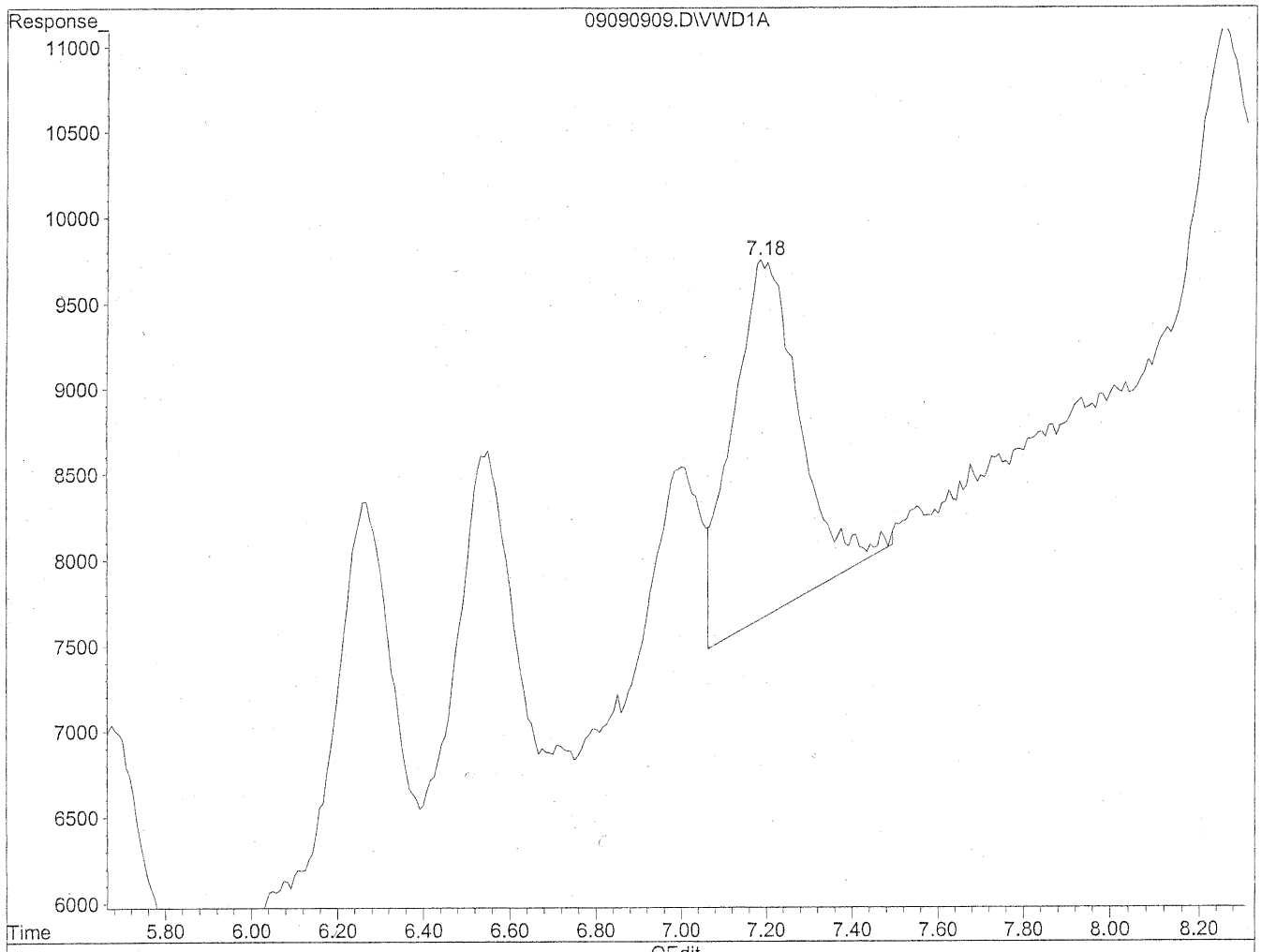
response 200799

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde

7.18min 98.156ng/ml m

response 227448

9/10/09

9/10/09

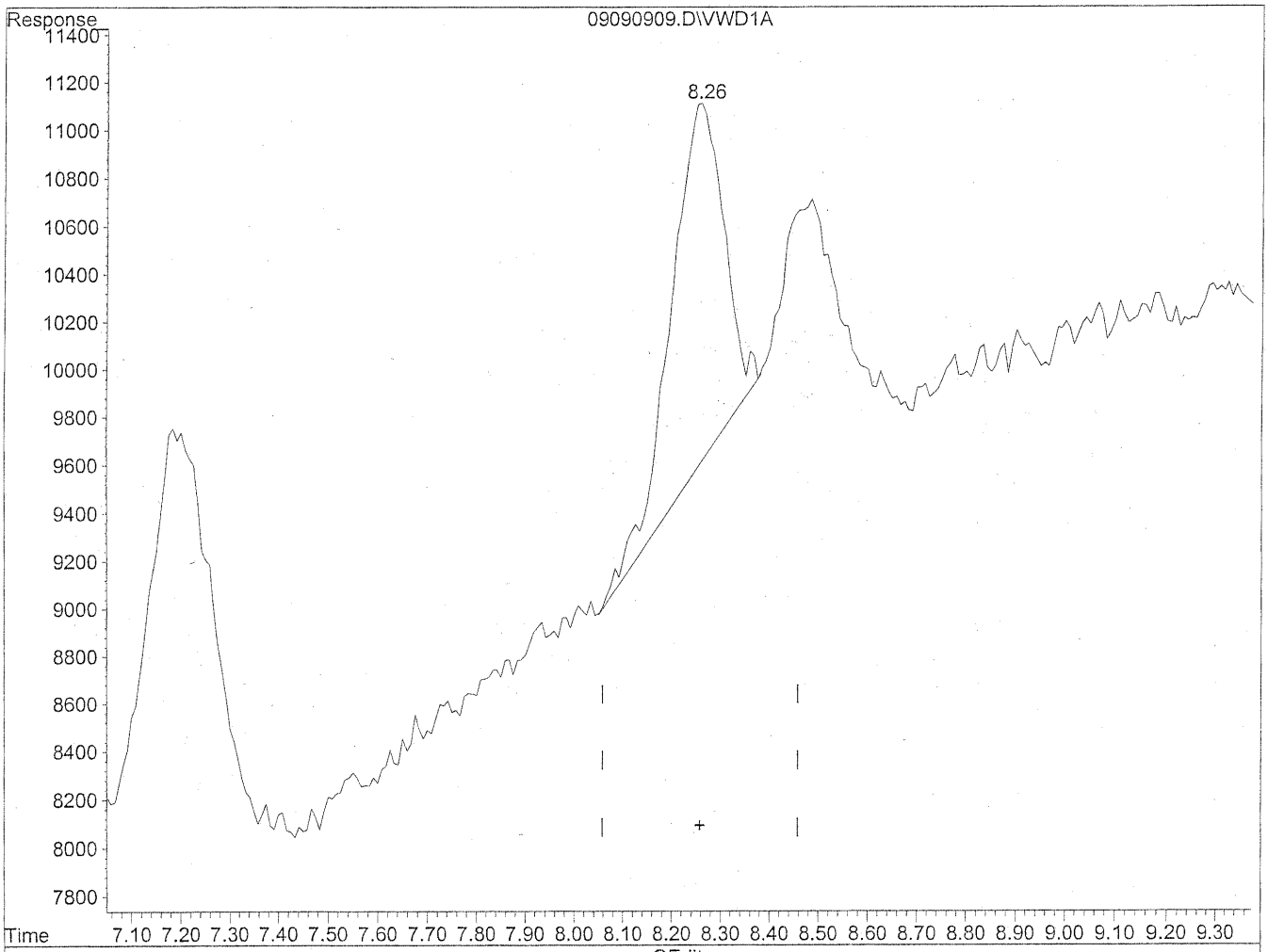
(+) = Expected Retention Time

09090909.D TO110909.M Thu Sep 10 08:47:57 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



QEdit

(11) Hexaldehyde

8.26min 38.176ng/ml

response 111365

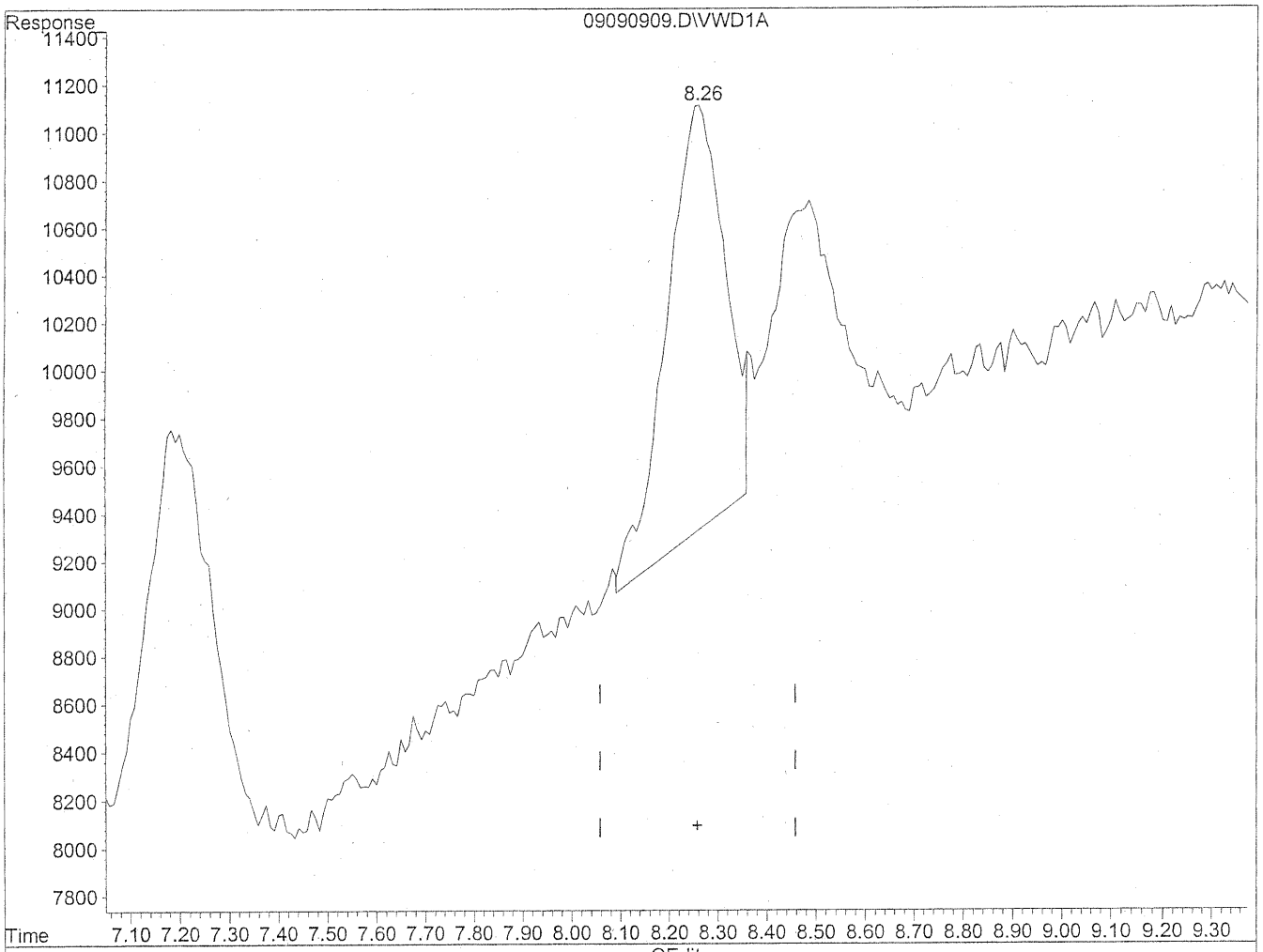
(+) = Expected Retention Time

09090909.D TO110909.M Thu Sep 10 08:48:01 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.26min 49.945ng/ml m

response 145697

9/10/09

9/10/09

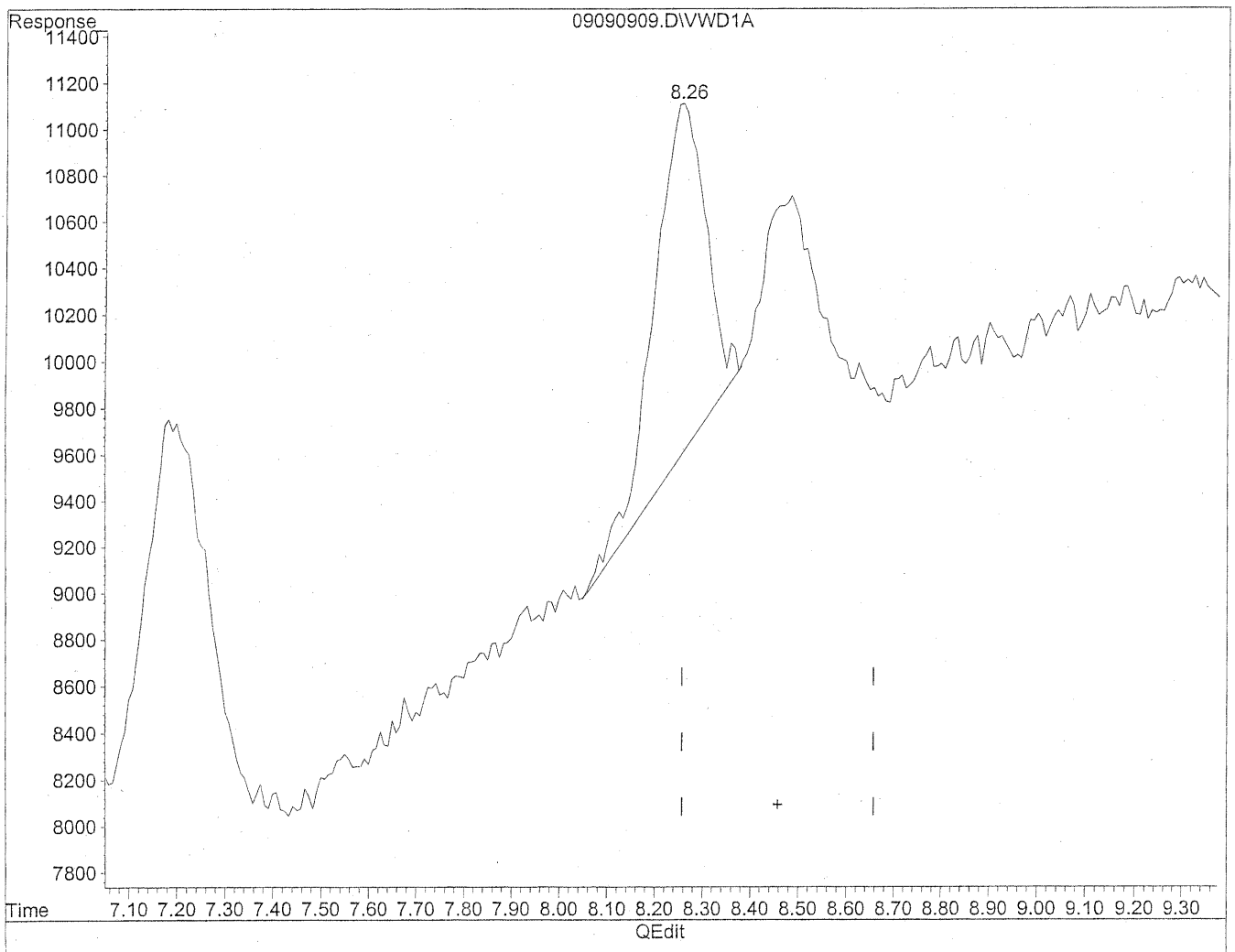
(+) = Expected Retention Time

09090909.D TO110909.M Thu Sep 10 08:48:07 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

8.26min 57.160ng/ml

response 111365

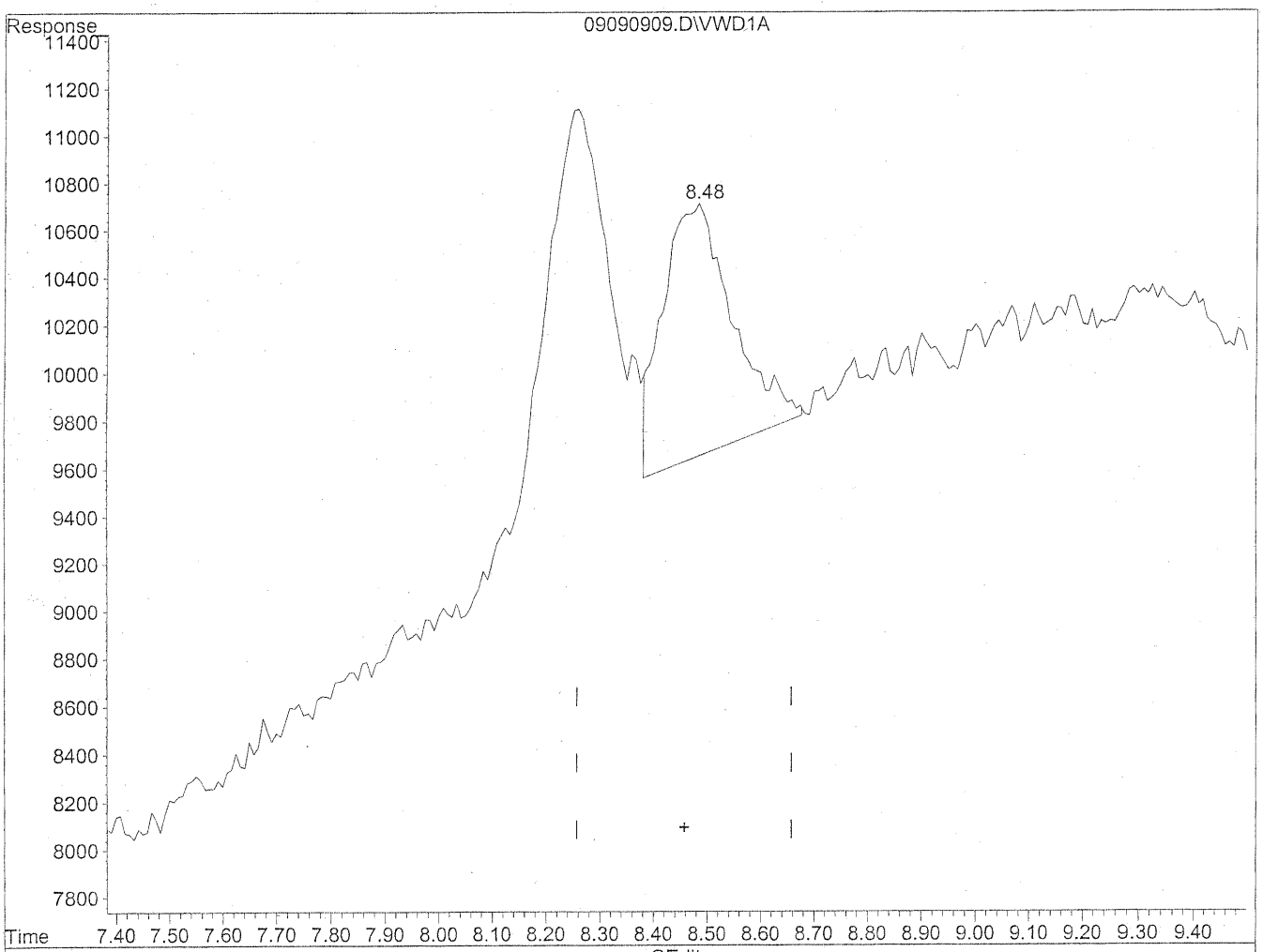
(+) = Expected Retention Time

09090909.D TO110909.M Thu Sep 10 08:48:09 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 11 13:54:46 2008
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

8.48min 49.614ng/ml m

response 96663

9/10/09

9/10/09

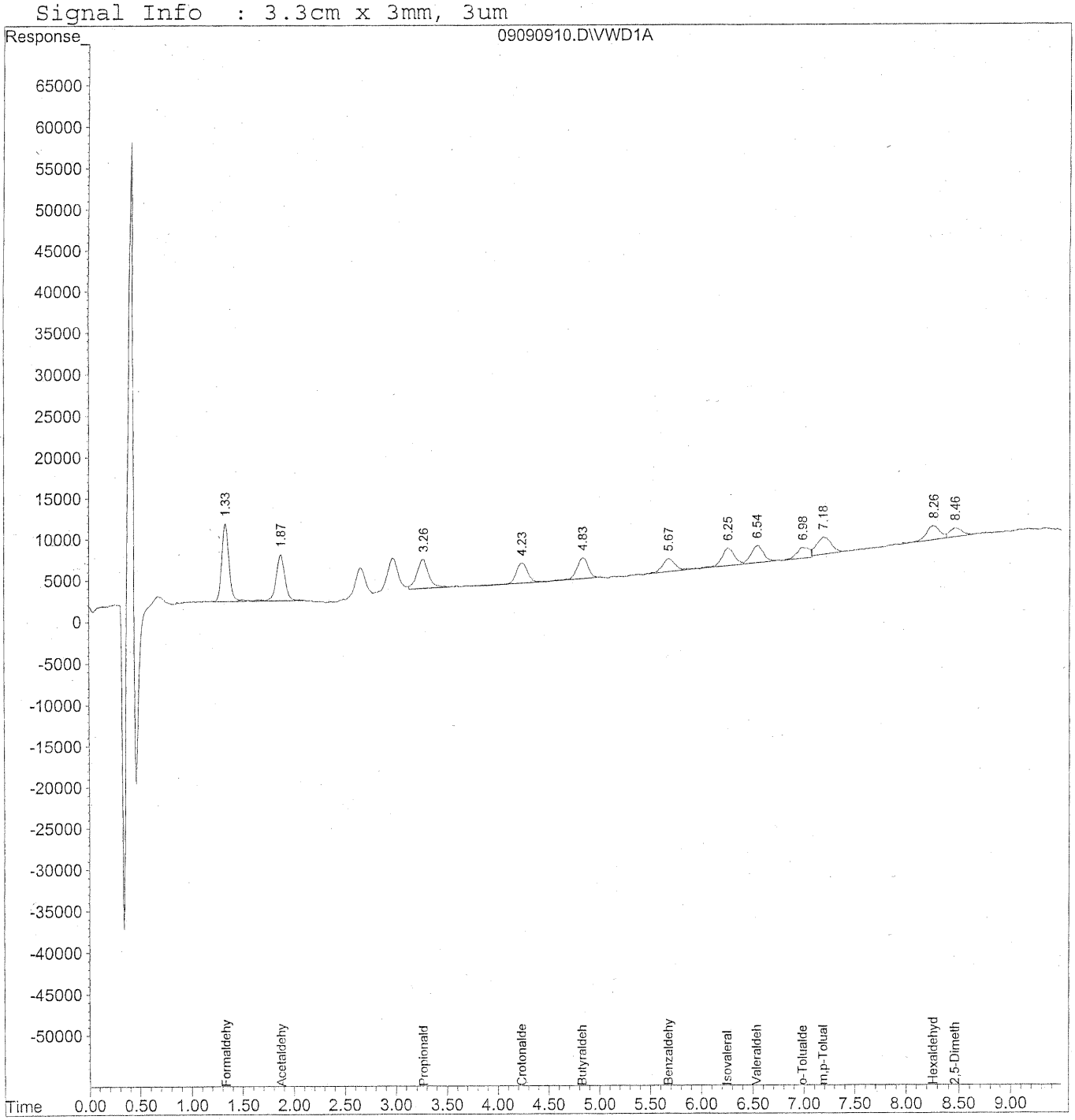
(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:49 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:49 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

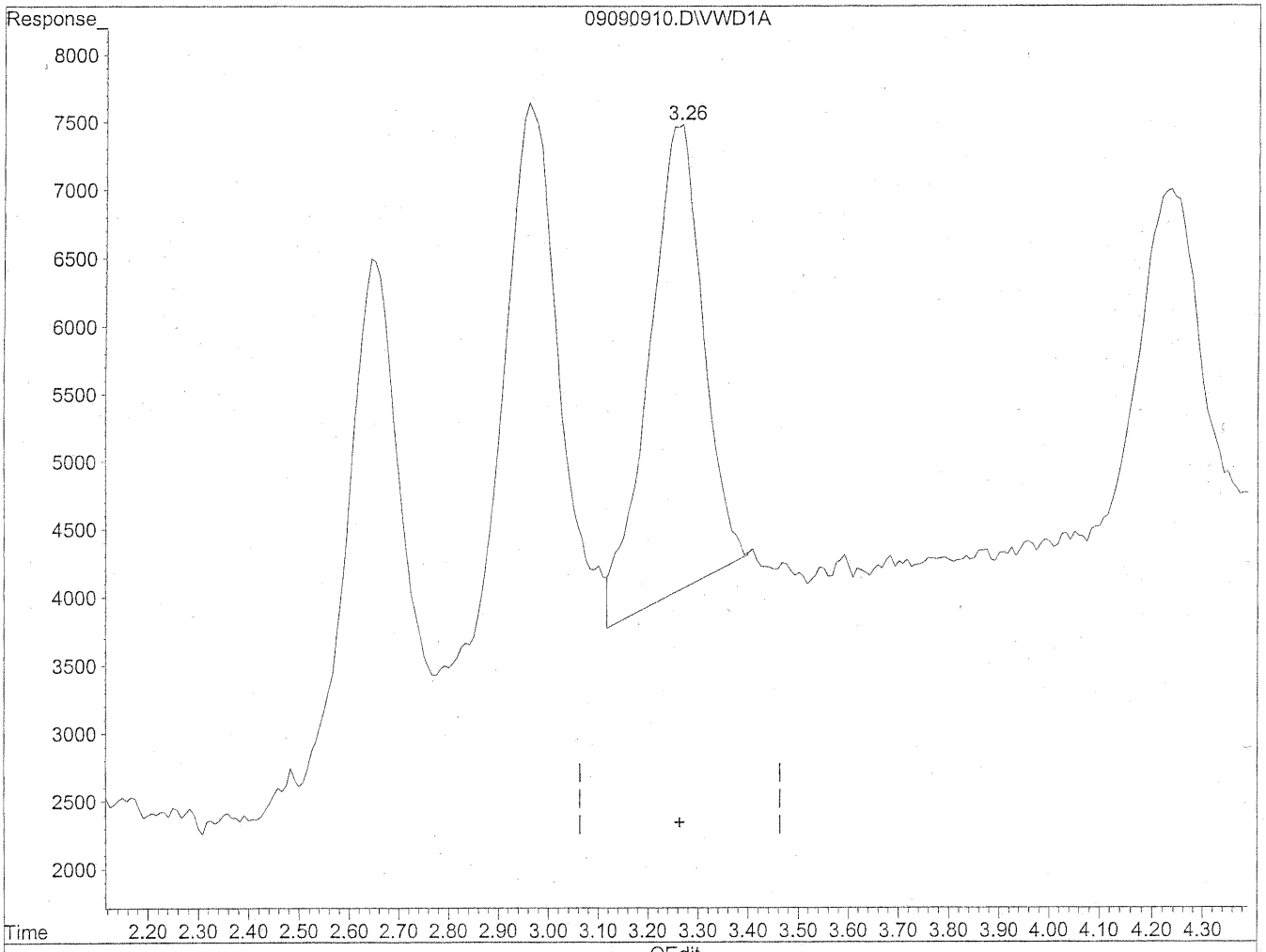
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Formaldehyde	1.33	464552	50.660 ng/ml
2)	Acetaldehyde	1.87	341116	51.530 ng/ml
3)	Propionaldehyde	3.26	281140	54.104 ng/mlm
4)	Crotonaldehyde	4.23	189710	46.307 ng/ml
5)	Butyraldehyde	4.83	193856	46.804 ng/ml
6)	Benzaldehyde	5.67	142307	53.093 ng/mlm
7)	Isovaleraldehyde	6.26	177082	49.928 ng/ml
8)	Valeraldehyde	6.54	169317	51.053 ng/ml
9)	o-Tolualdehyde	6.98	113786	50.342 ng/mlm
10)	m,p-Tolualdehyde	7.19	212270	91.245 ng/ml
11)	Hexaldehyde	8.26	155285	53.226 ng/ml
12)	2,5-Dimethylbenzaldehyde	8.46	88645	45.040 ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde

3.26min 49.837ng/ml

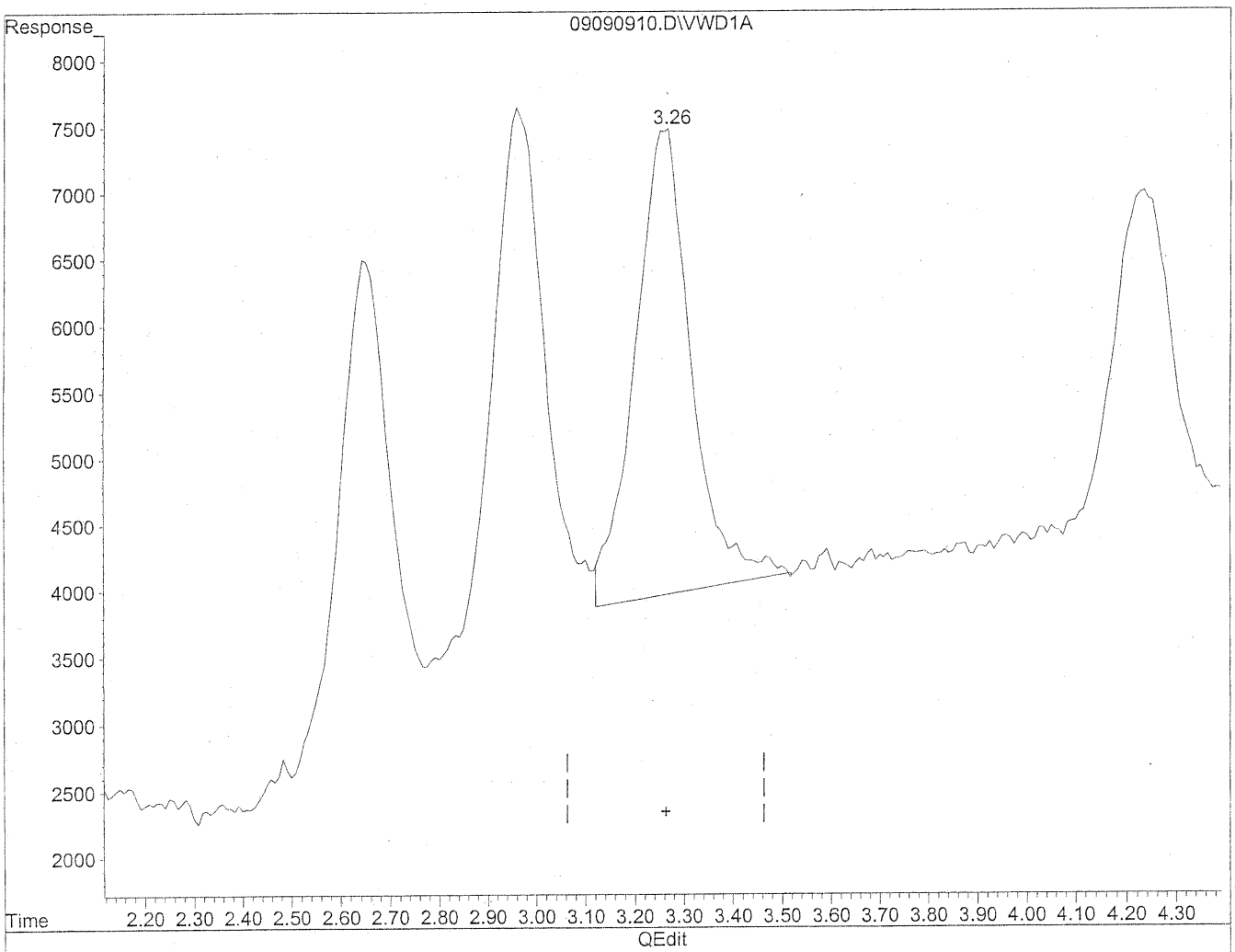
response 258964

(+) = Expected Retention Time
09090910.D TO110909.M Thu Sep 10 08:48:55 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde

3.26min 54.104ng/ml m

response 281140

9/10/09

9/10/09

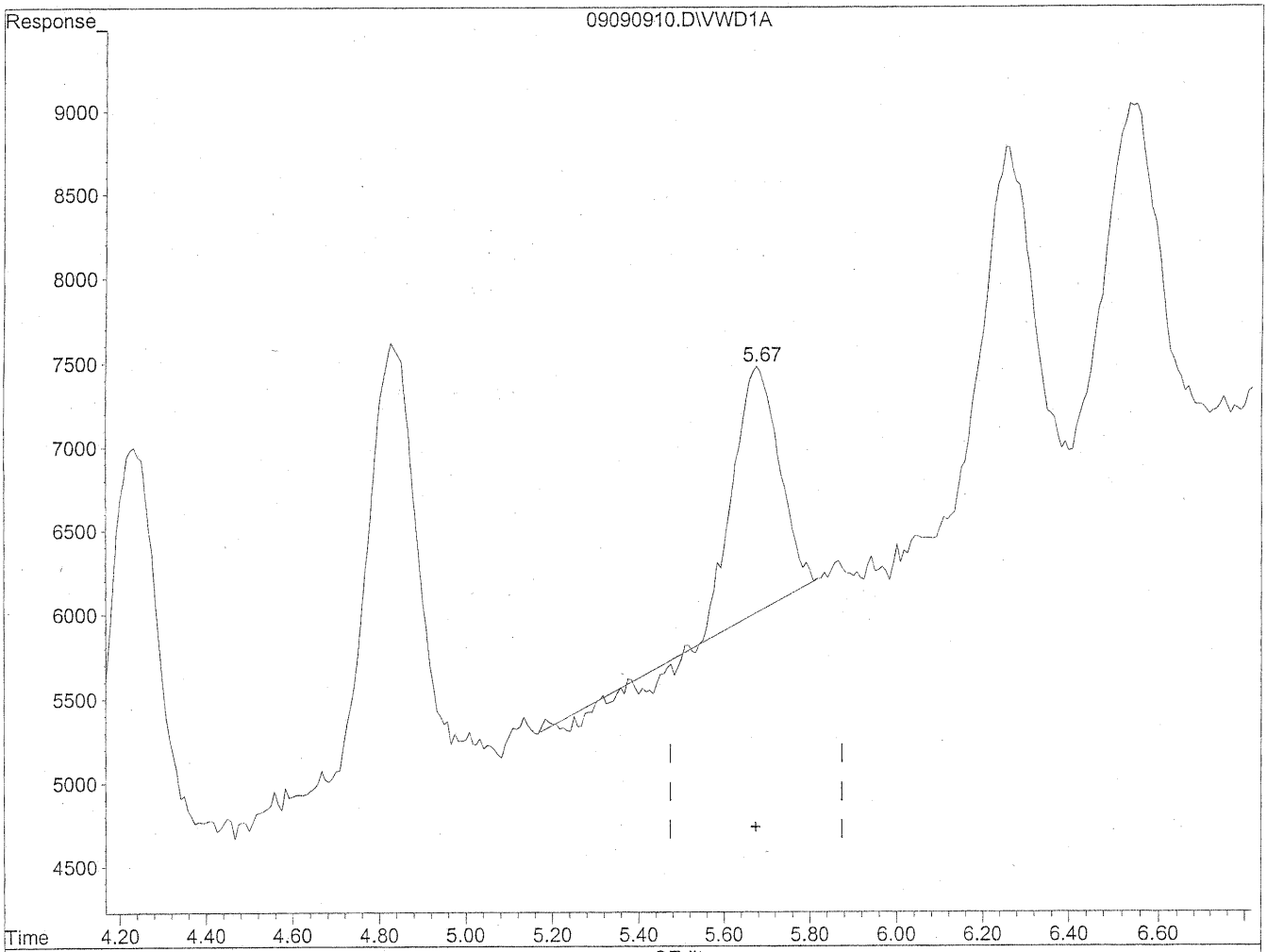
(+) = Expected Retention Time

09090910.D TO110909.M Thu Sep 10 08:49:06 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(6) Benzaldehyde

5.68min 37.890ng/ml

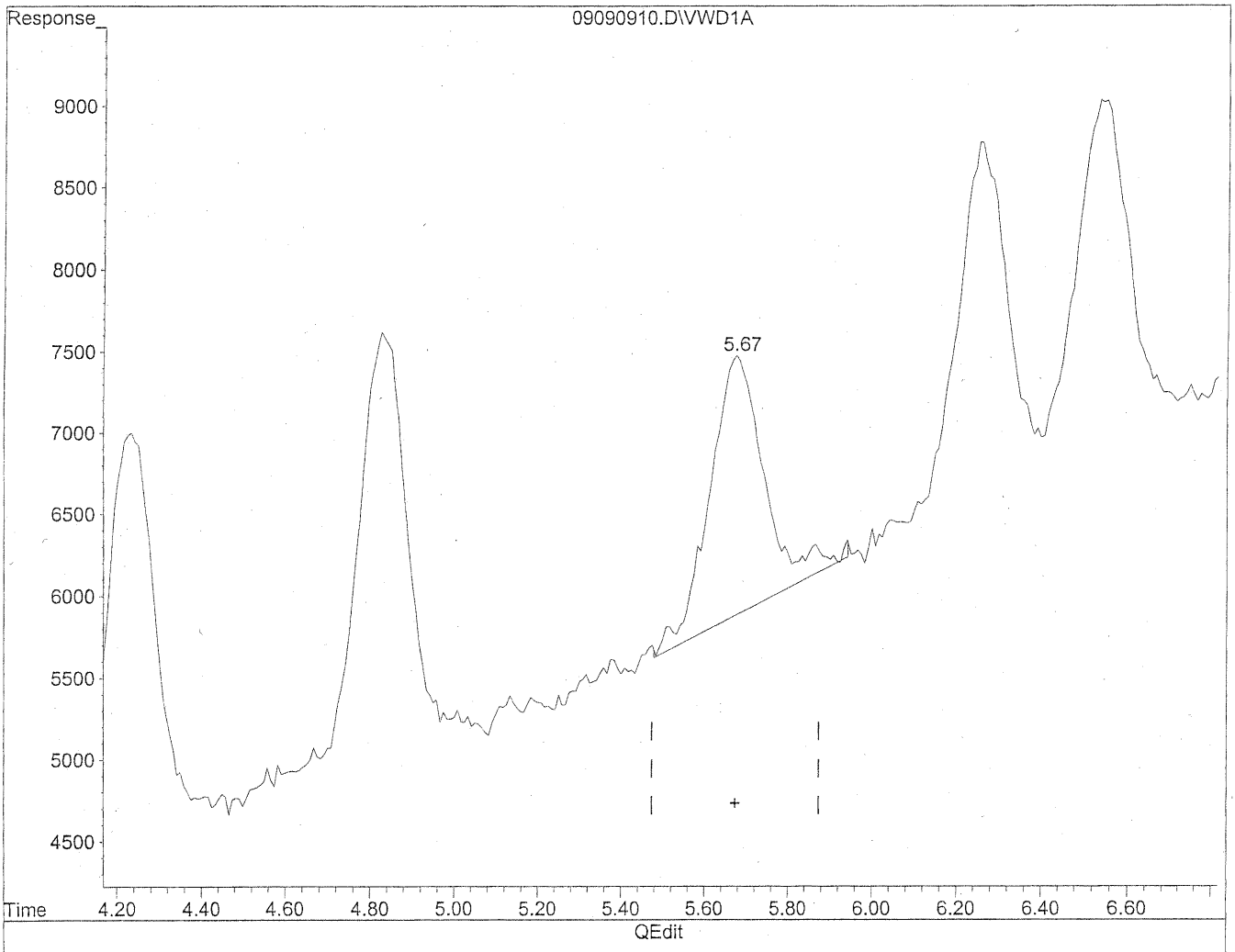
response 101557

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(6) Benzaldehyde

5.67min 53.093ng/ml m

response 142307

9/10/09

9/10/09

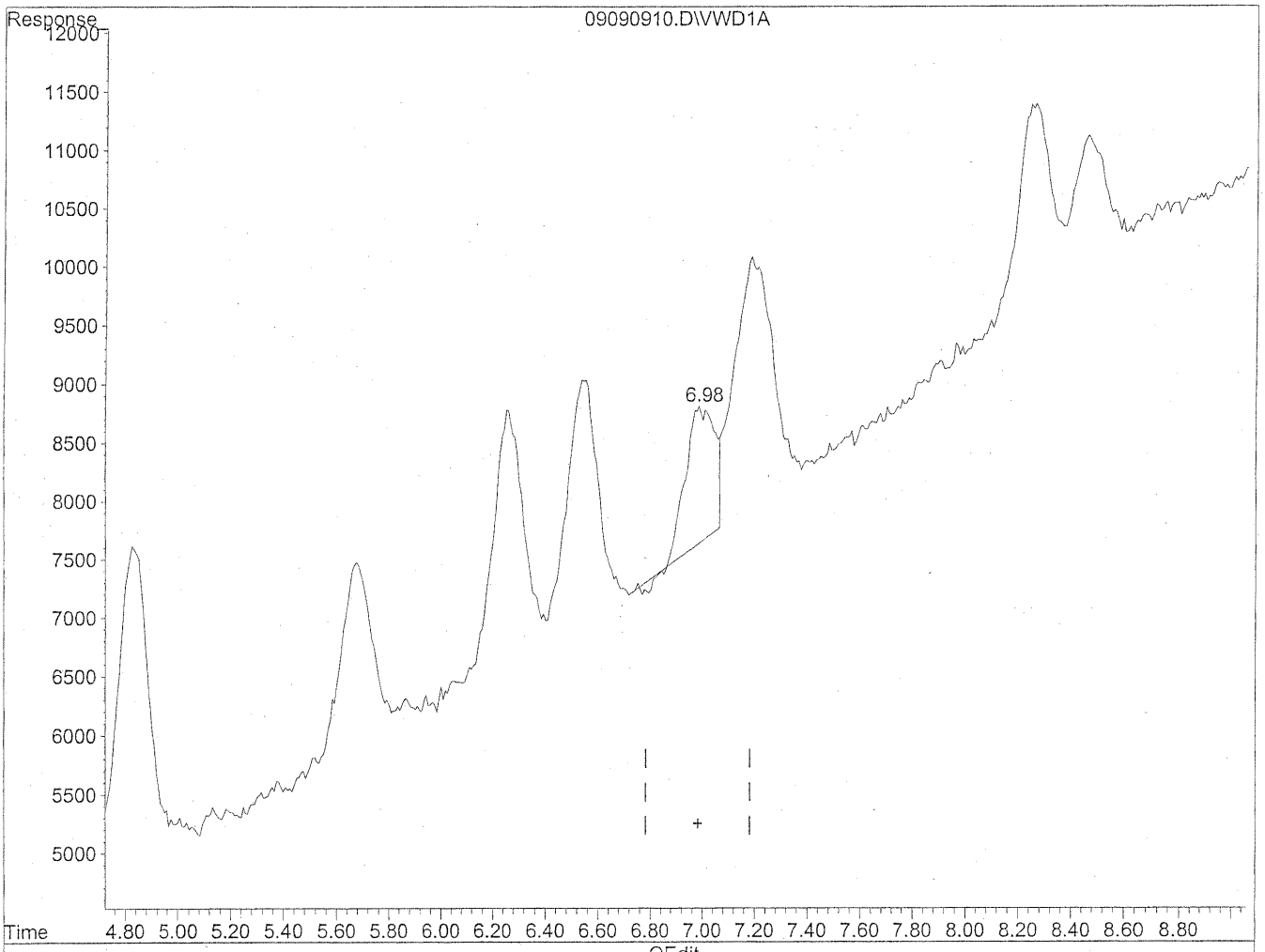
(+) = Expected Retention Time

09090910.D TO110909.M Thu Sep 10 08:49:16 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(9) o-Tolualdehyde

6.99min 38.054ng/ml

response 86012

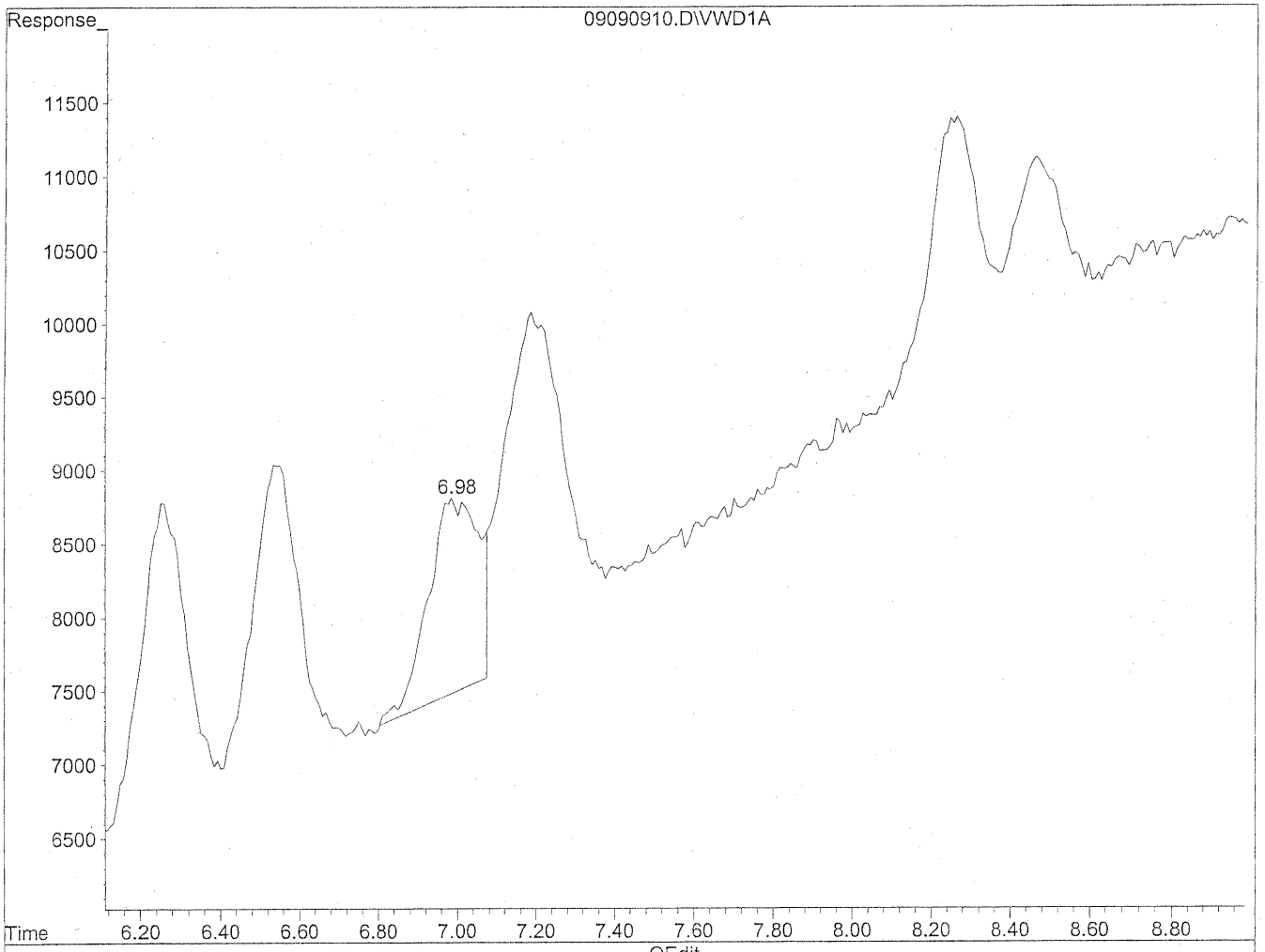
(+) = Expected Retention Time

09090910.D TO110909.M Thu Sep 10 08:49:25 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(9) o-Tolualdehyde

6.98min 50.342ng/ml m

response 113786

9/10/09

9/10/09

(+) = Expected Retention Time

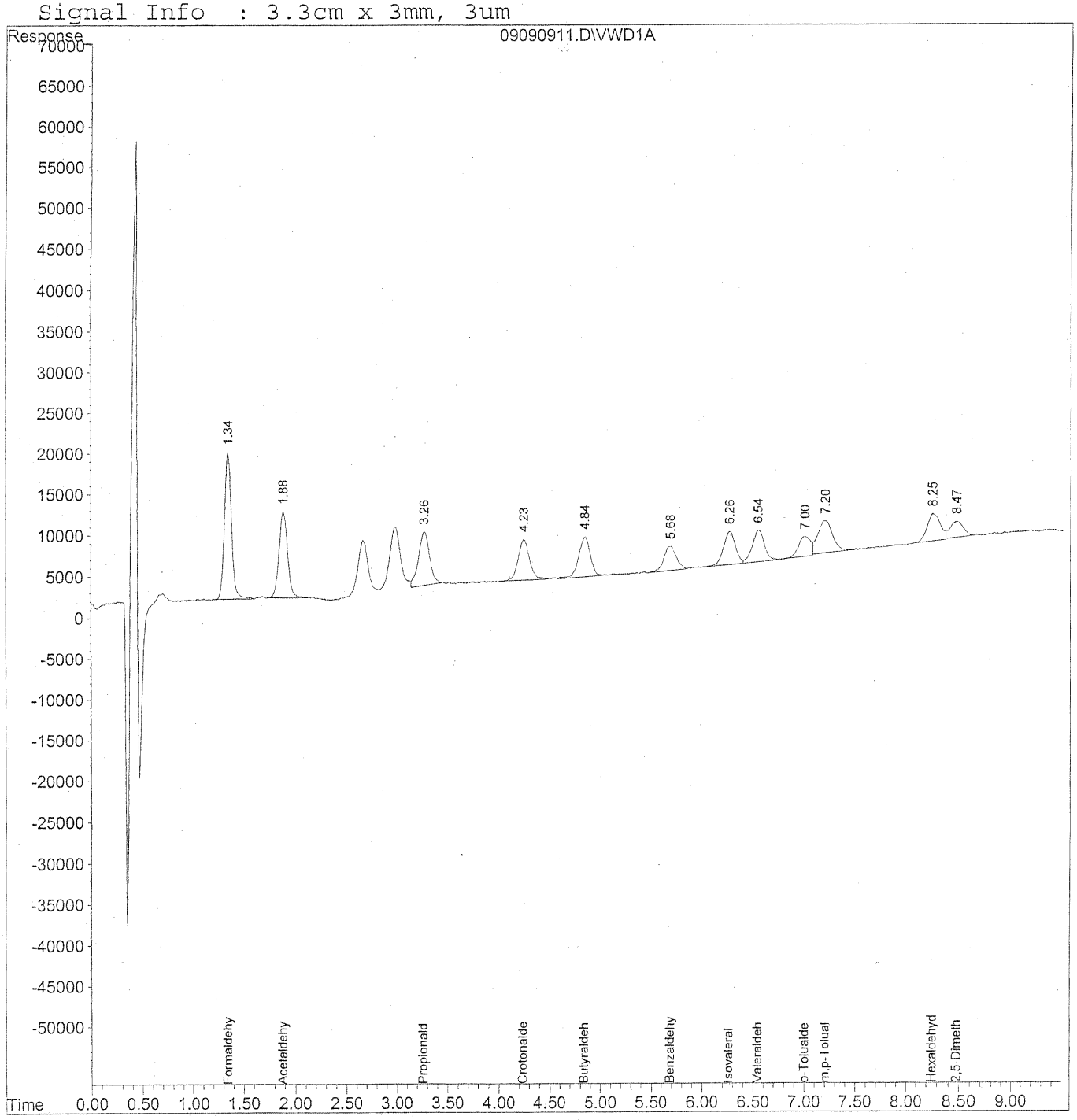
09090910.D TO110909.M Thu Sep 10 08:49:36 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

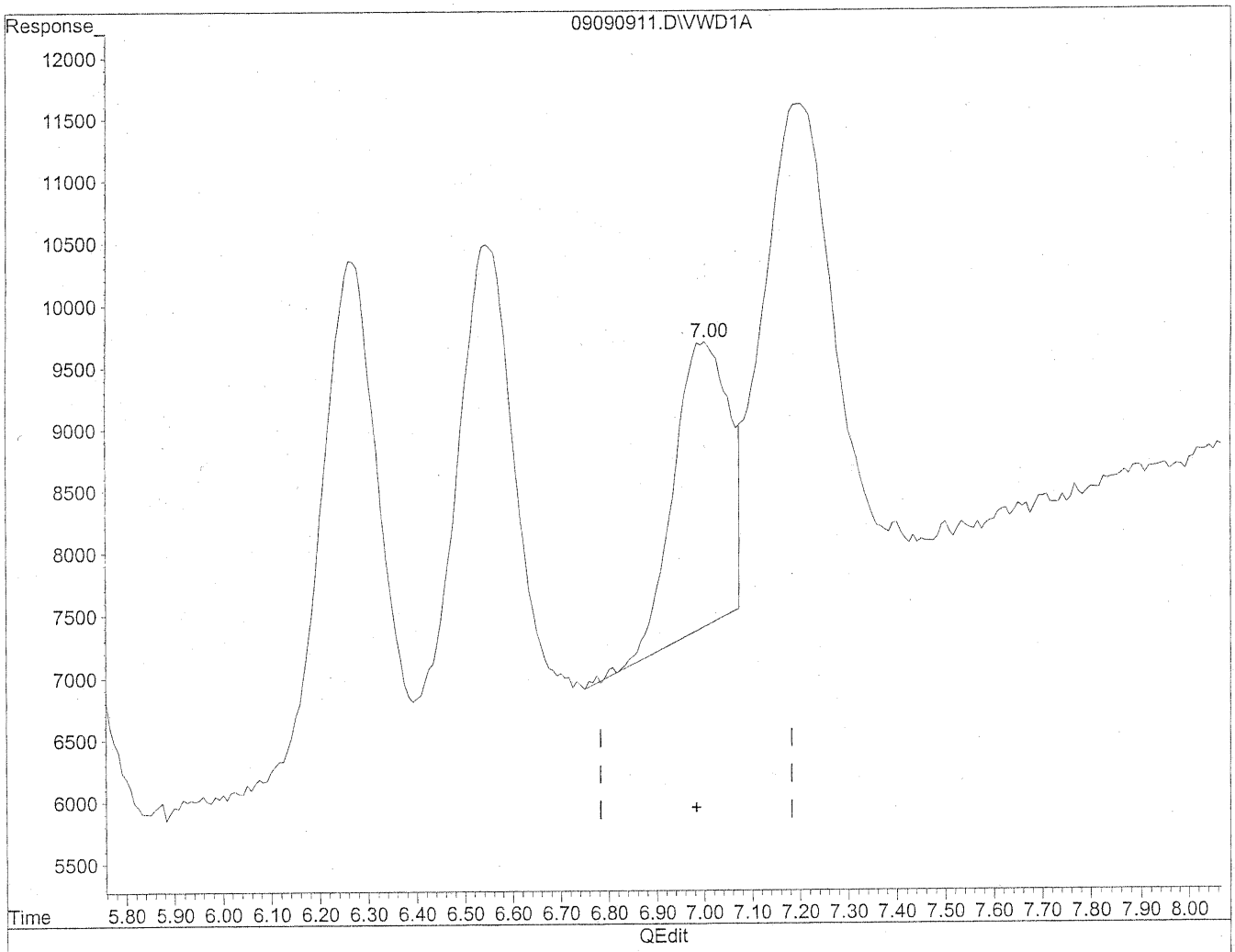
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	857936	93.340	ng/ml
2)	Acetaldehyde	1.88	602866	90.745	ng/ml
3)	Propionaldehyde	3.26	495705	95.023	ng/ml
4)	Crotonaldehyde	4.24	389577	95.443	ng/ml
5)	Butyraldehyde	4.84	390139	94.563	ng/ml
6)	Benzaldehyde	5.68	249897	93.081	ng/ml
7)	Isovaleraldehyde	6.27	323665	91.369	ng/ml
8)	Valeraldehyde	6.55	320426	96.613	ng/ml
9)	o-Tolualdehyde	7.00	207105	91.087	ng/mlm
10)	m,p-Tolualdehyde	7.20	397976	171.466	ng/mlm
11)	Hexaldehyde	8.25	282439	96.453	ng/mlm
12)	2,5-Dimethylbenzaldehyde	8.48	170783	86.876	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(9) o-Tolualdehyde

7.00min 80.006ng/ml

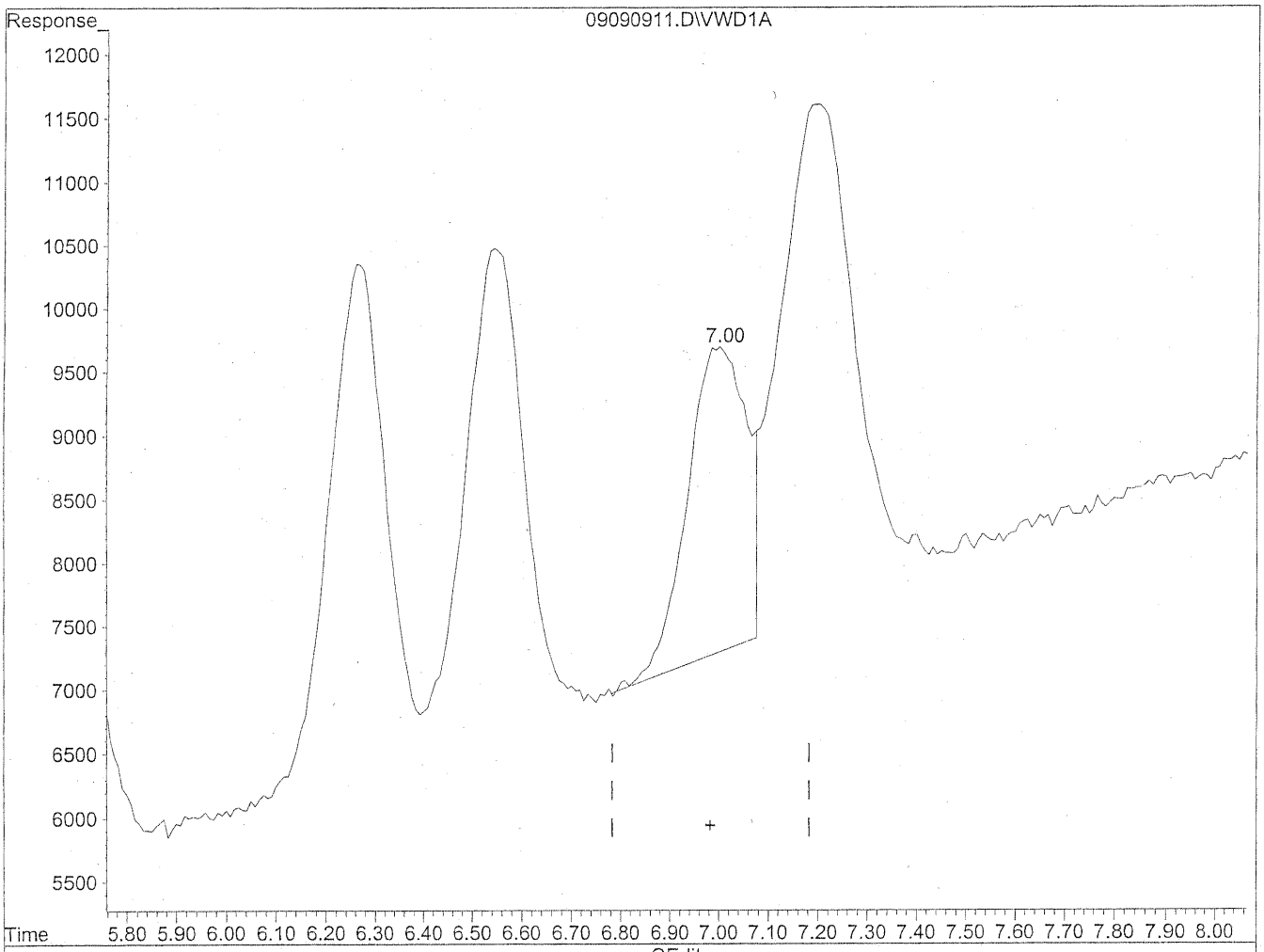
response 181910

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



QEdit

(9) o-Tolualdehyde

7.00min 91.087ng/ml m

response 207105

9/10/09

9/10/09

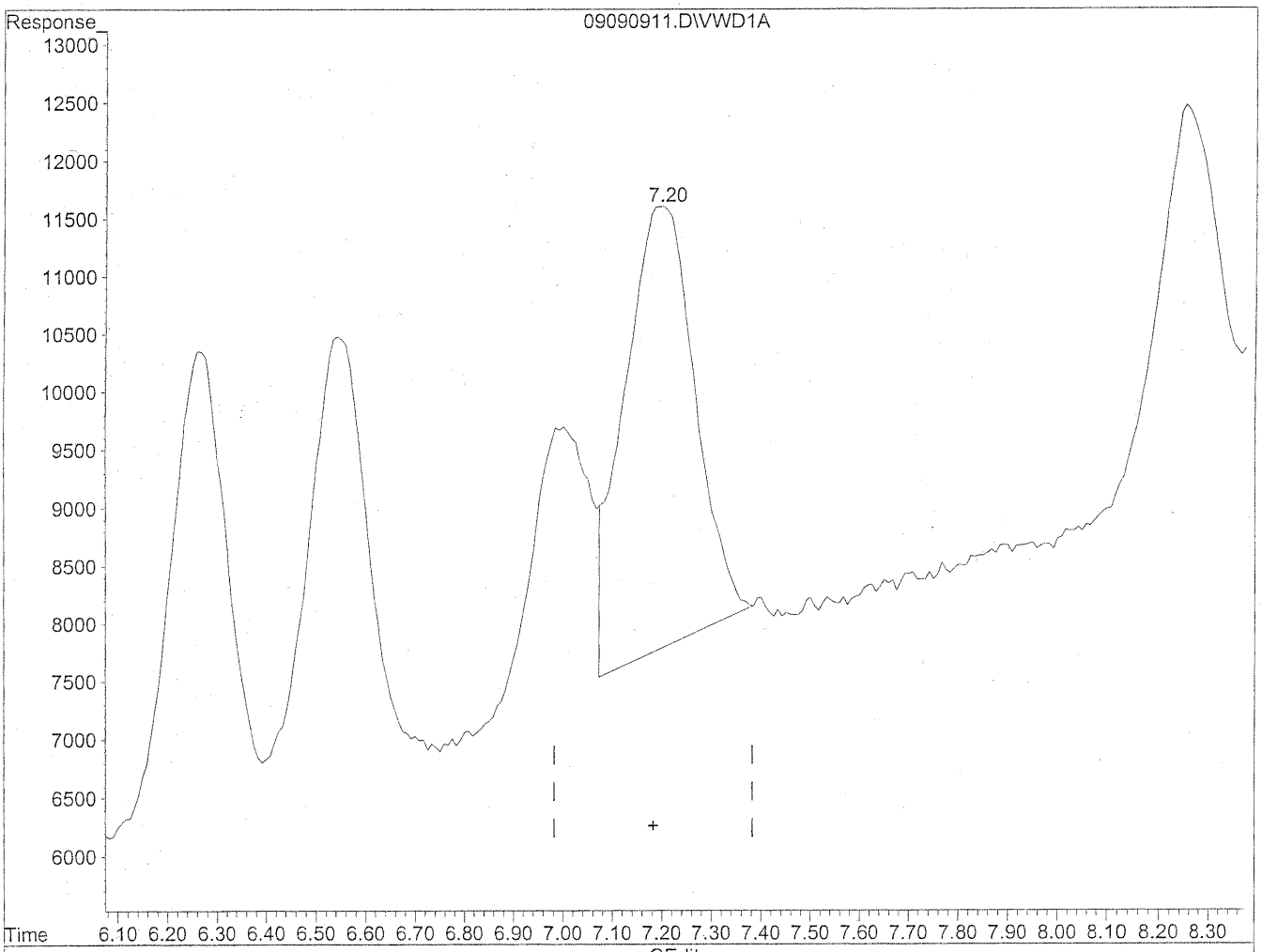
(+) = Expected Retention Time

09090911.D TO110909.M Thu Sep 10 09:02:10 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde

7.20min 165.581ng/ml

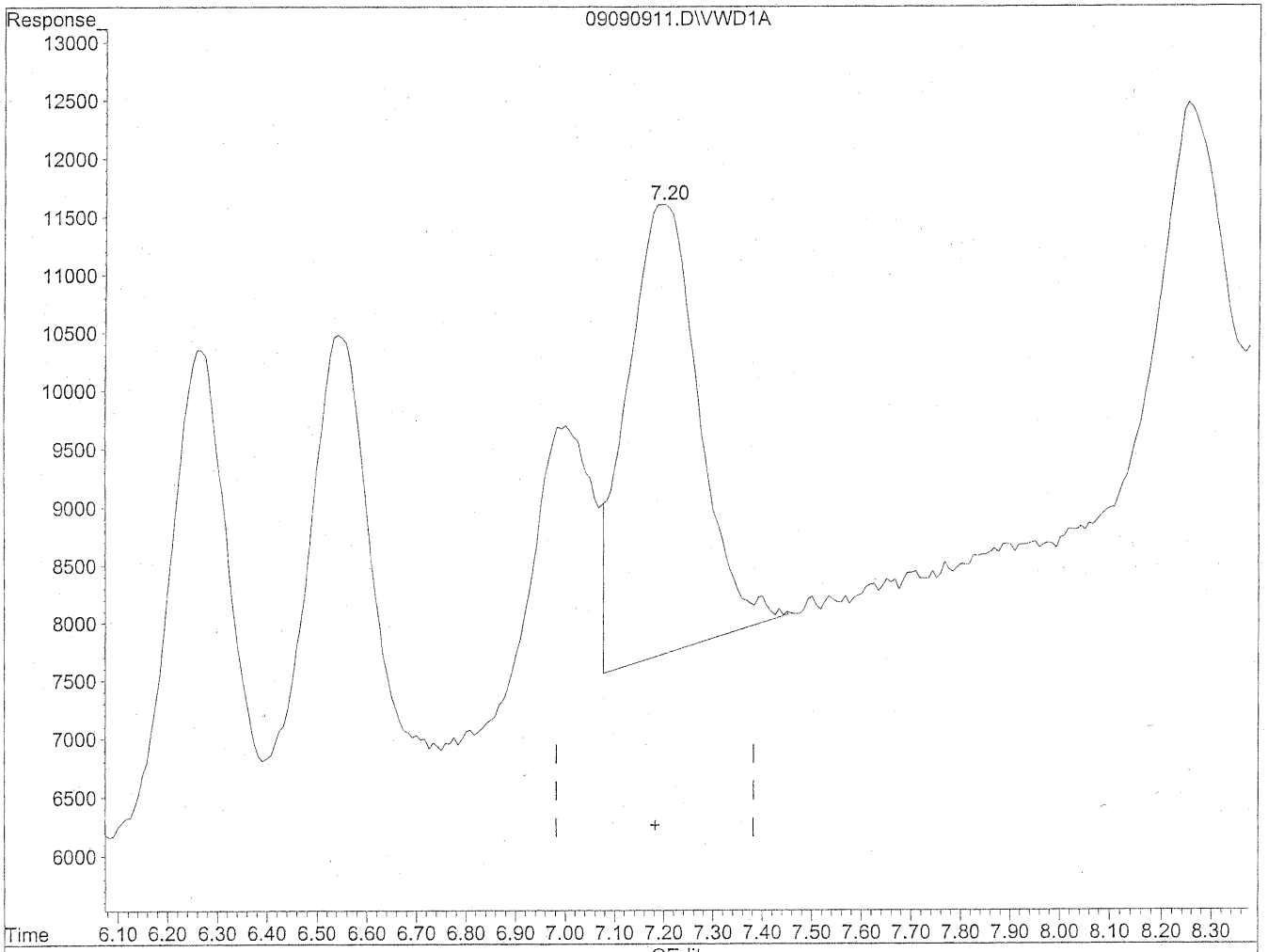
response 384316

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde

7.20min 171.466ng/ml m

response 397976

9/10/09

9/10/09

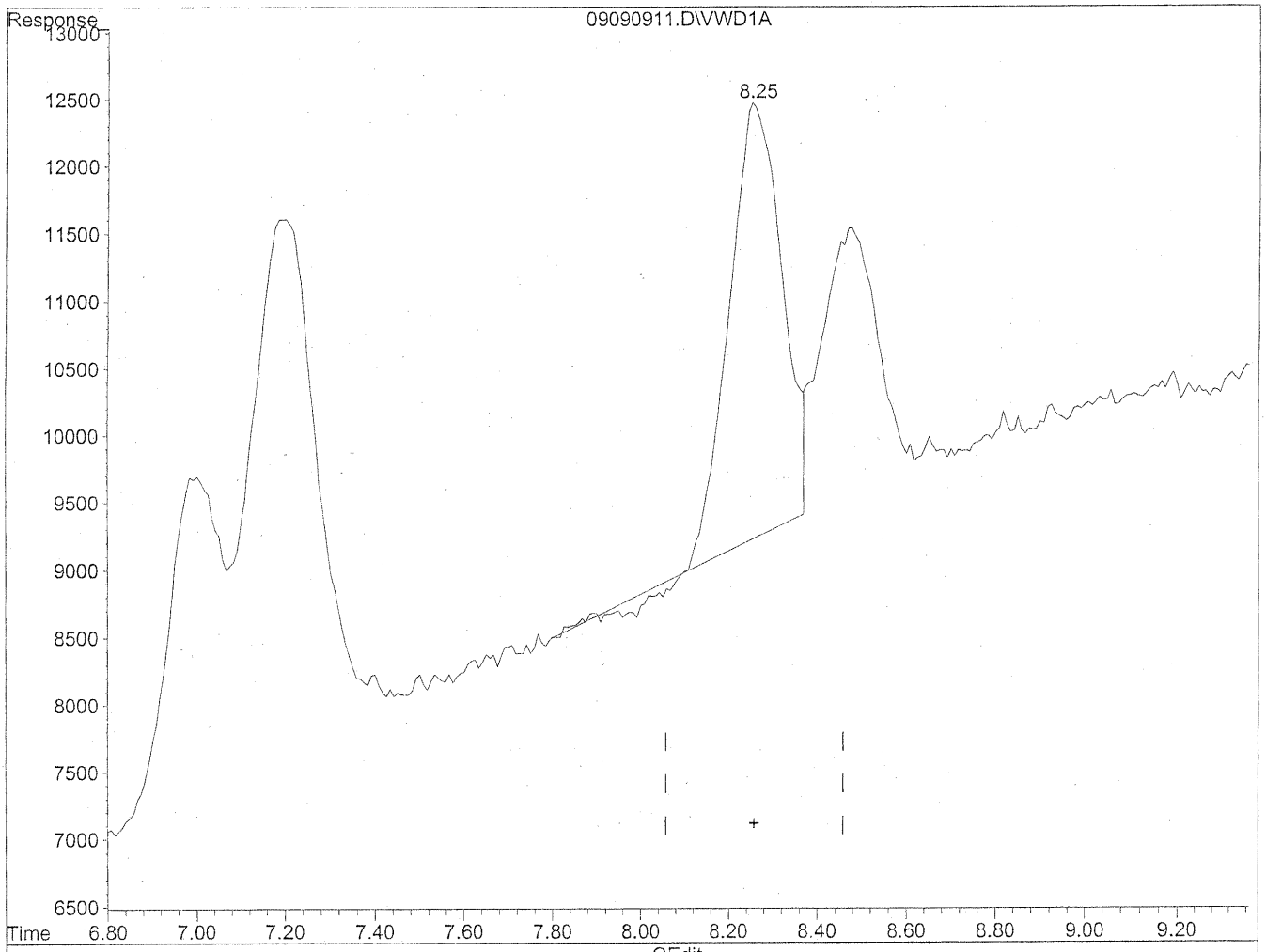
(+) = Expected Retention Time

09090911.D TO110909.M Thu Sep 10 08:50:21 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.25min 88.073ng/ml

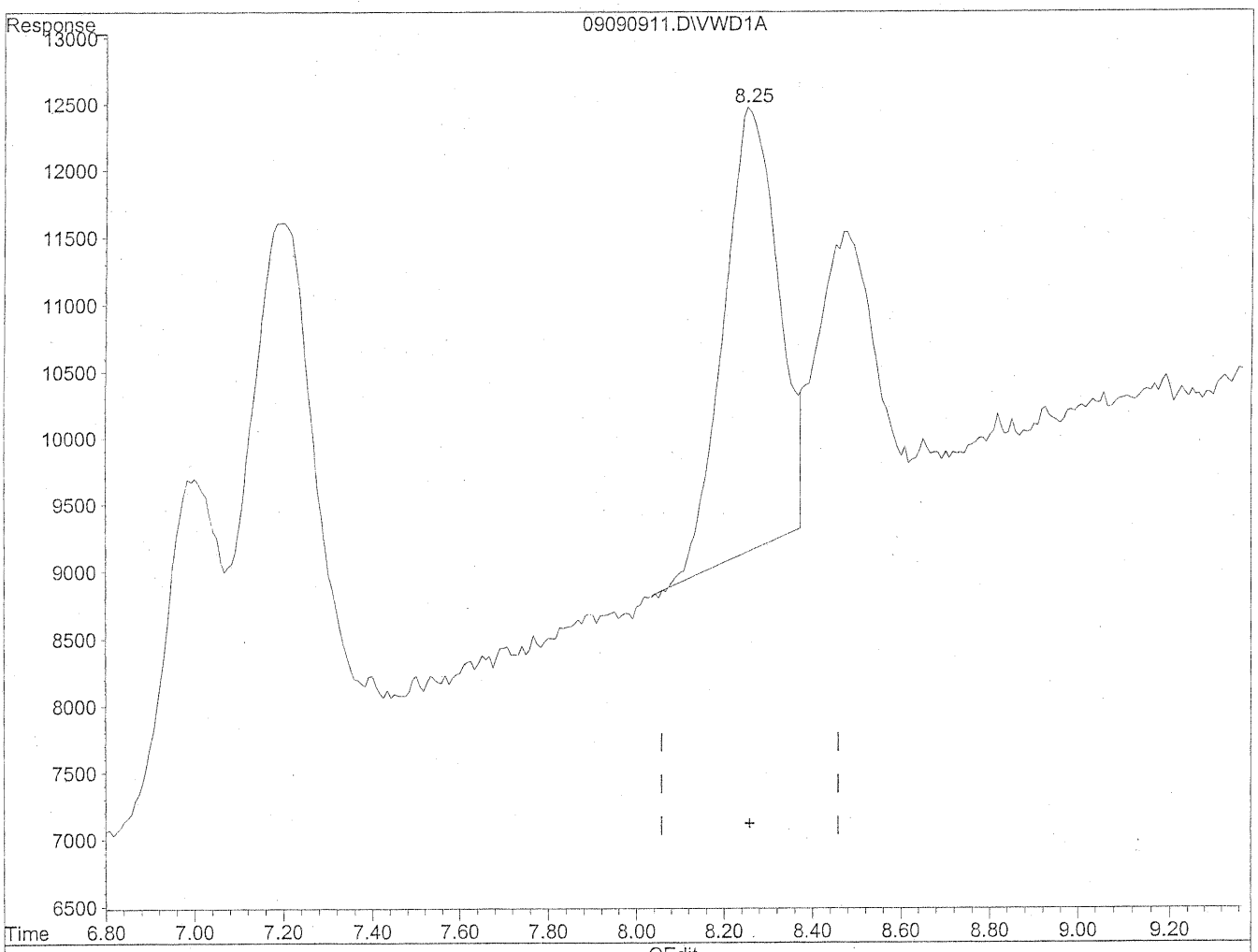
response 257900

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.25min 96.453ng/ml m

response 282439

9/10/09

9/10/09

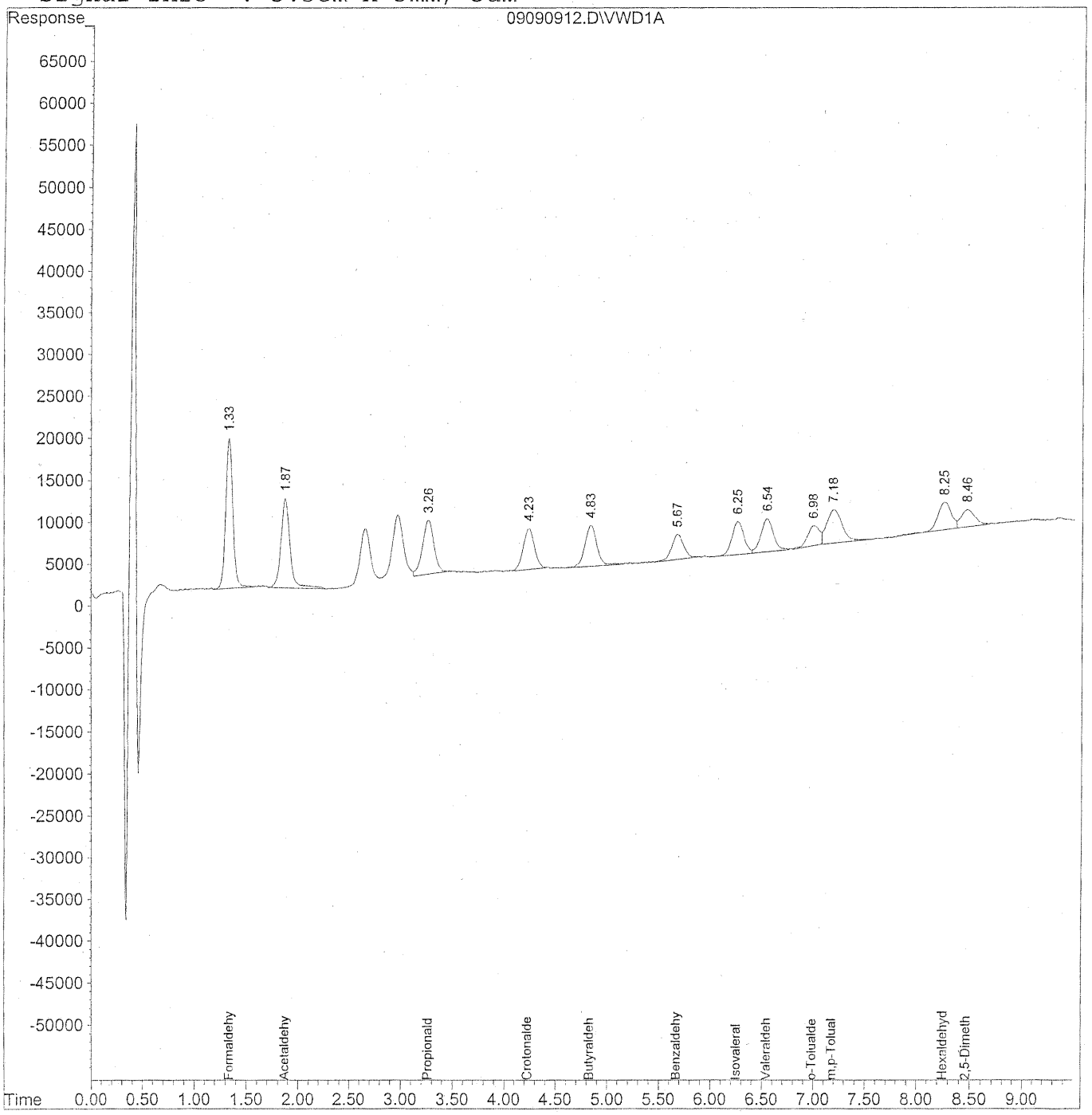
(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

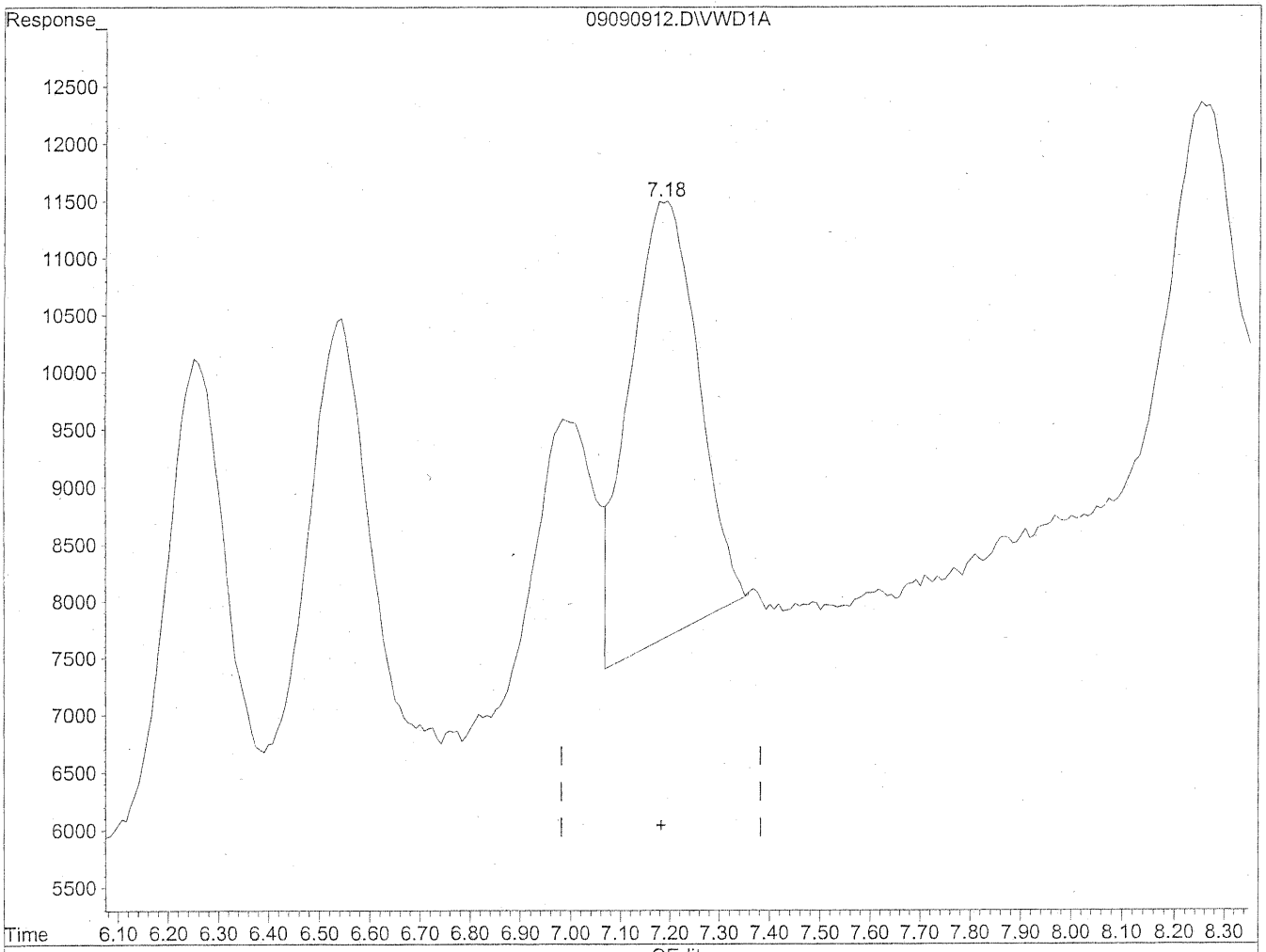
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.33	856527	95.214	ng/ml
2)	Acetaldehyde	1.87	664731	103.021	ng/ml
3)	Propionaldehyde	3.26	489979	96.720	ng/ml
4)	Crotonaldehyde	4.23	375407	93.706	ng/ml
5)	Butyraldehyde	4.83	399611	98.840	ng/ml
6)	Benzaldehyde	5.67	241433	91.160	ng/ml
7)	Isovaleraldehyde	6.26	313564	91.728	ng/ml
8)	Valeraldehyde	6.54	335005	102.594	ng/ml
9)	o-Tolualdehyde	6.99	188768	88.367	ng/ml
10)	m,p-Tolualdehyde	7.18	416110	187.485	ng/mlm
11)	Hexaldehyde	8.26	285615	98.813	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	182724	97.357	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde

7.19min 169.858ng/ml

response 376988

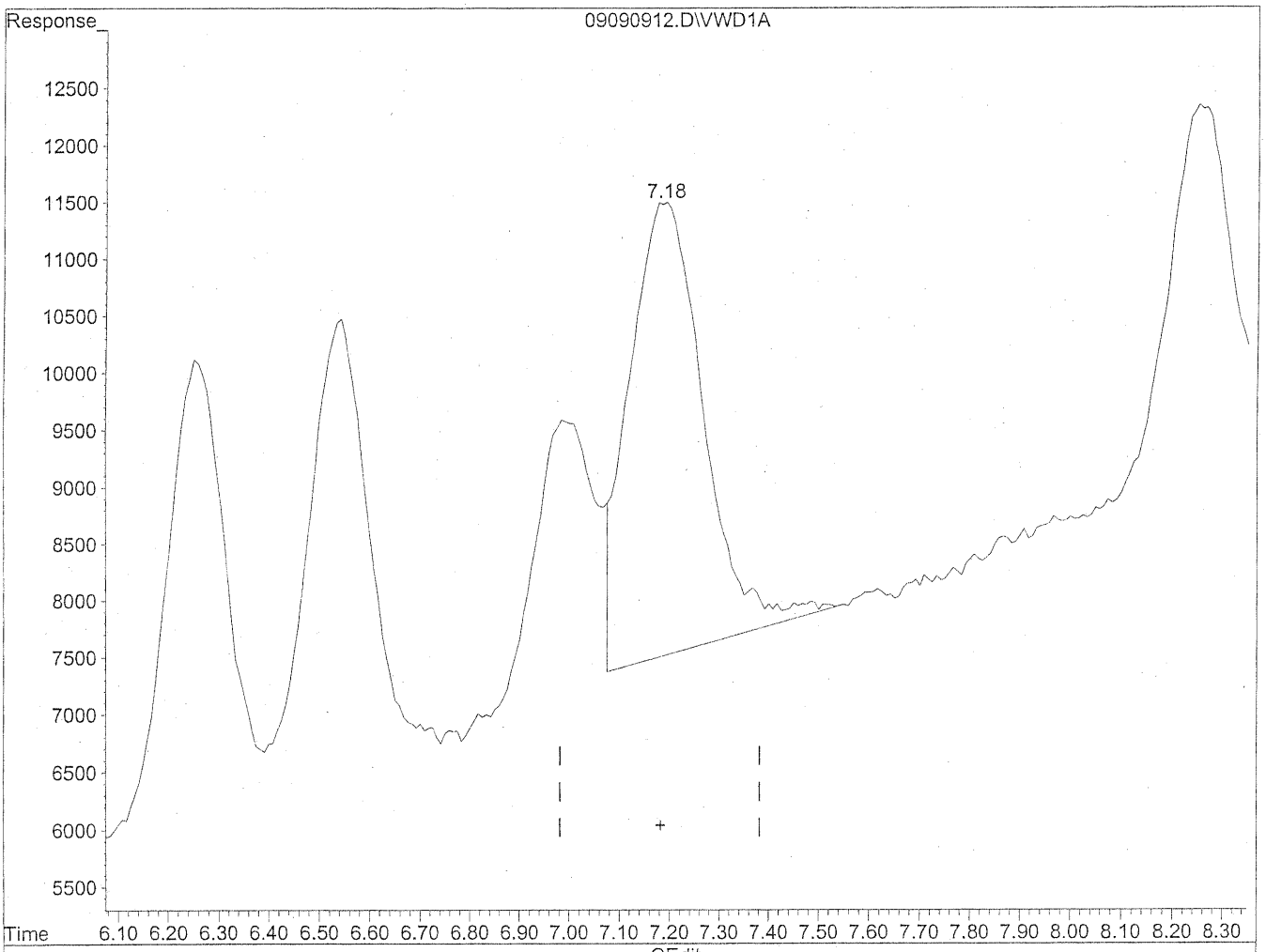
(+) = Expected Retention Time

09090912.D TO110909.M Thu Sep 10 08:51:11 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde

7.18min 187.485ng/ml m

response 416110

9/10/09

9/10/09

(+) = Expected Retention Time

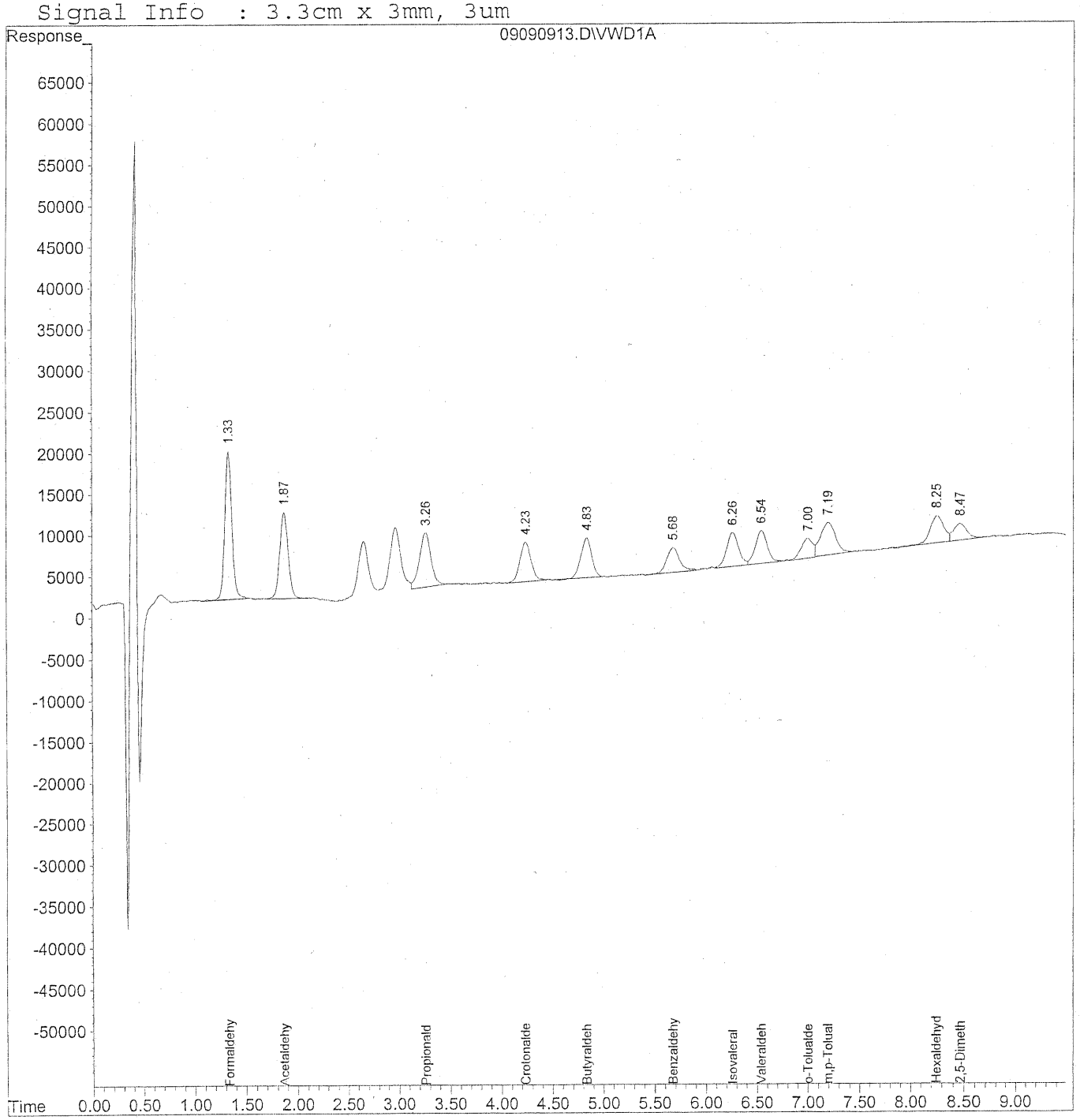
09090912.D TO110909.M Thu Sep 10 08:51:16 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

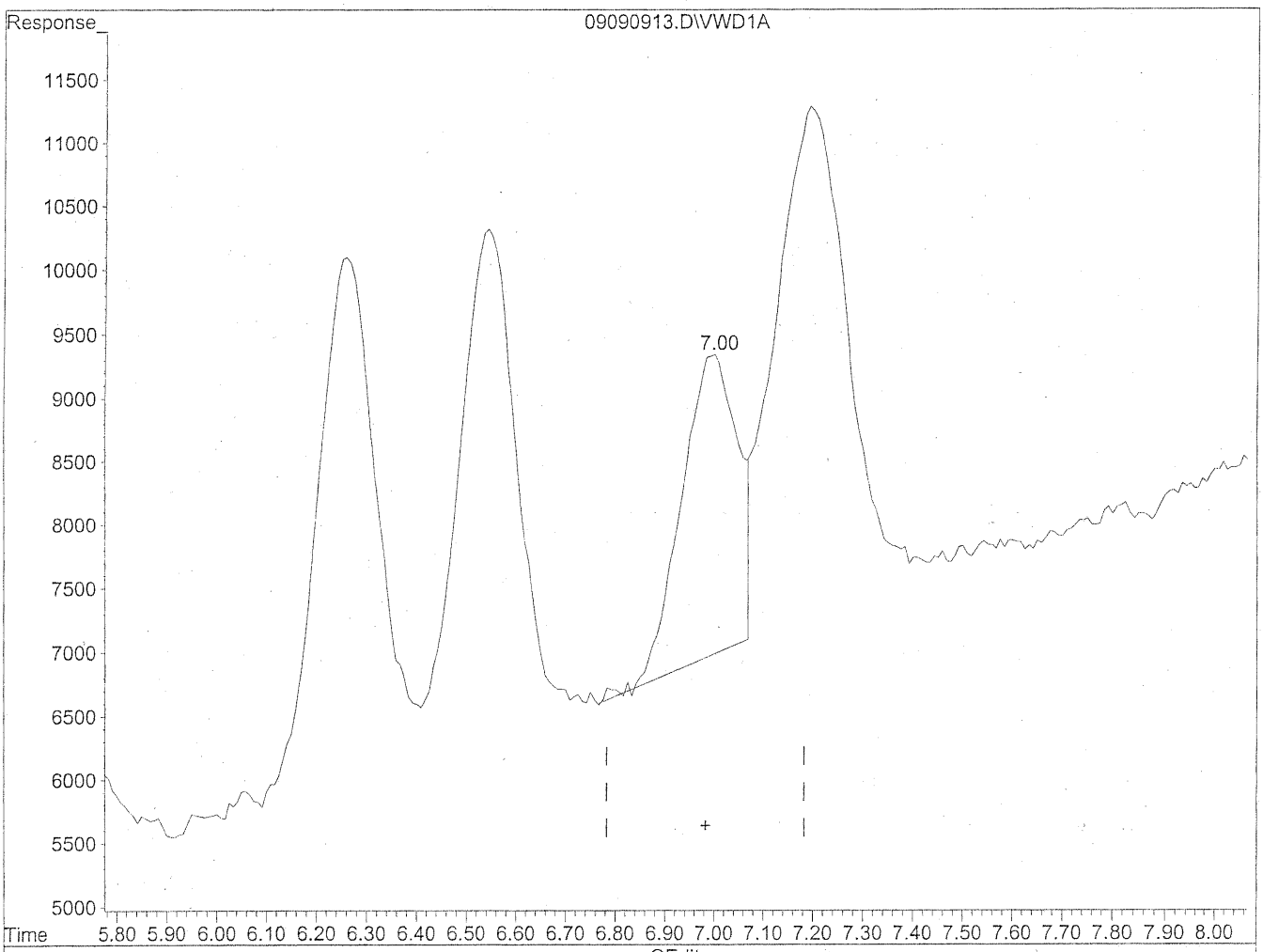
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	864000	96.057	ng/ml
2)	Acetaldehyde	1.87	602096	92.574	ng/ml
3)	Propionaldehyde	3.26	512978	101.355	ng/ml
4)	Crotonaldehyde	4.24	373596	93.529	ng/ml
5)	Butyraldehyde	4.84	358623	88.529	ng/ml
6)	Benzaldehyde	5.68	261486	98.995	ng/ml
7)	Isovaleraldehyde	6.26	340775	99.934	ng/ml
8)	Valeraldehyde	6.54	327561	99.943	ng/ml
9)	o-Tolualdehyde	7.00	198353	92.606	ng/mlm
10)	m,p-Tolualdehyde	7.20	403186	181.045	ng/ml
11)	Hexaldehyde	8.26	288074	99.573	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	174836	92.662	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 09:02:40 2009
Response via : Multiple Level Calibration



QEdit

(9) o-Tolualdehyde

7.00min 84.692ng/ml

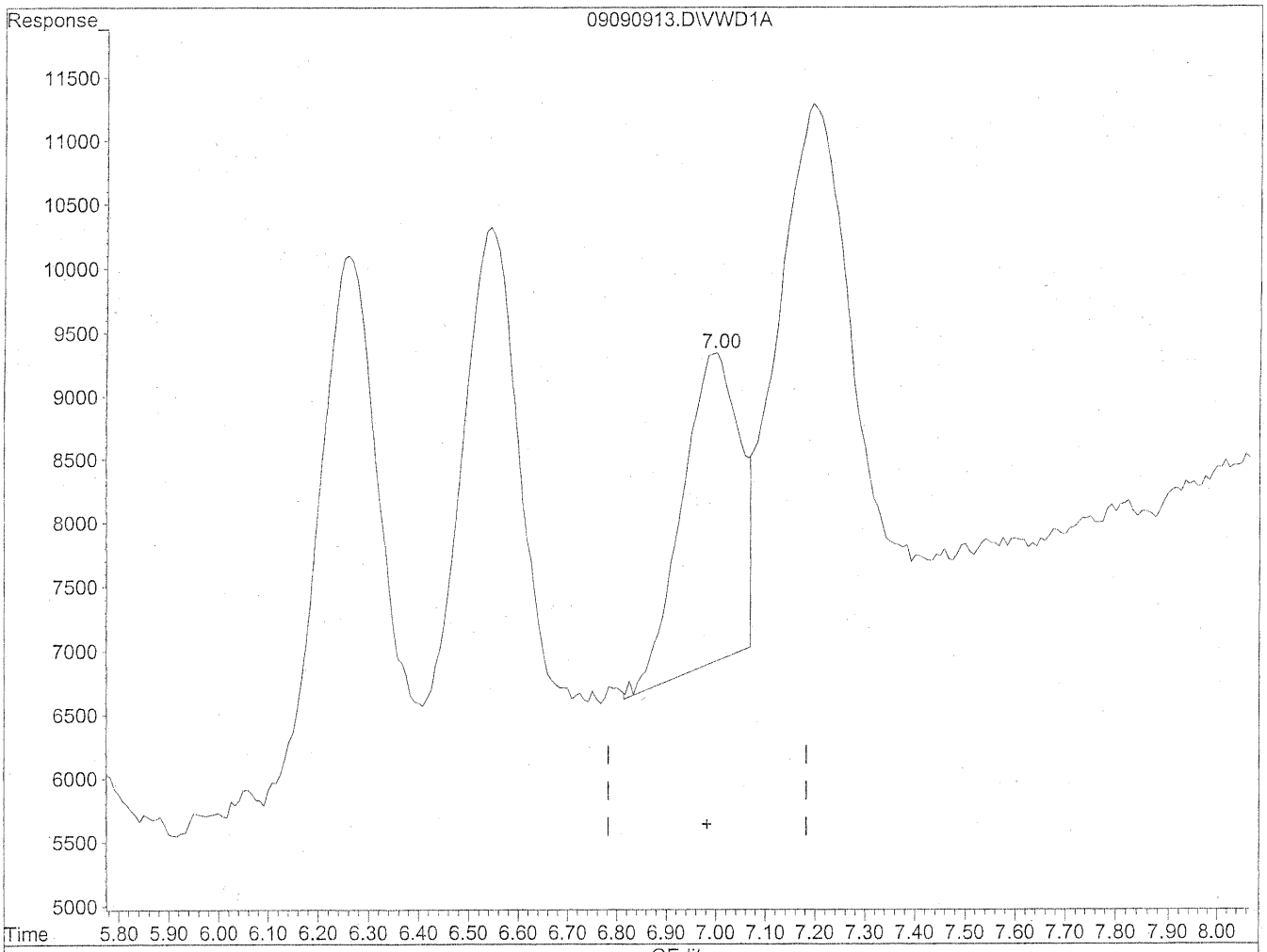
response 181403

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 09:02:40 2009
Response via : Multiple Level Calibration



QEdit

(9) o-Tolualdehyde

7.00min 92.606ng/ml m

response 198353

9/10/09

9/10/09

(+) = Expected Retention Time

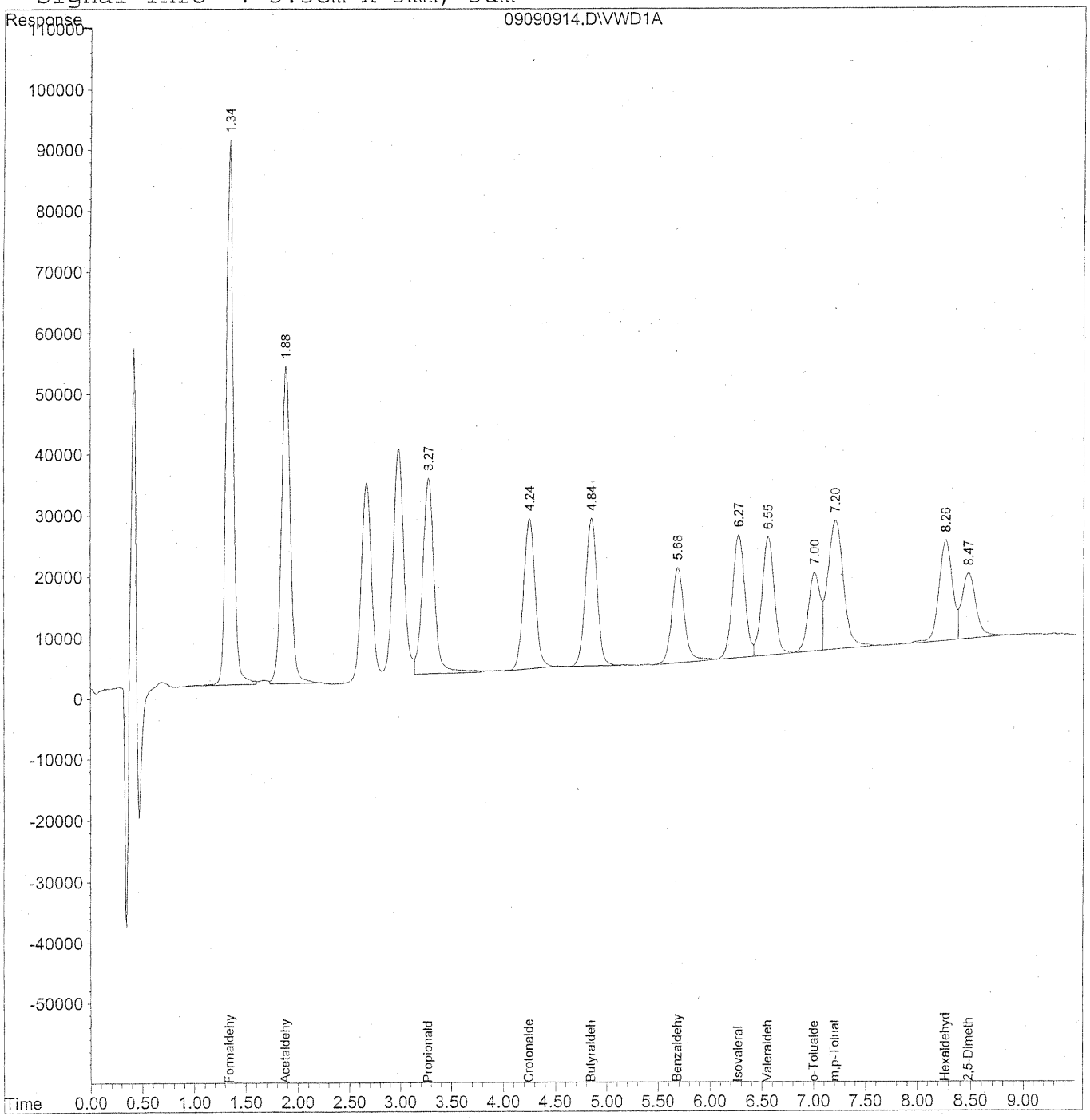
09090913.D TO110909.M Thu Sep 10 09:02:56 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

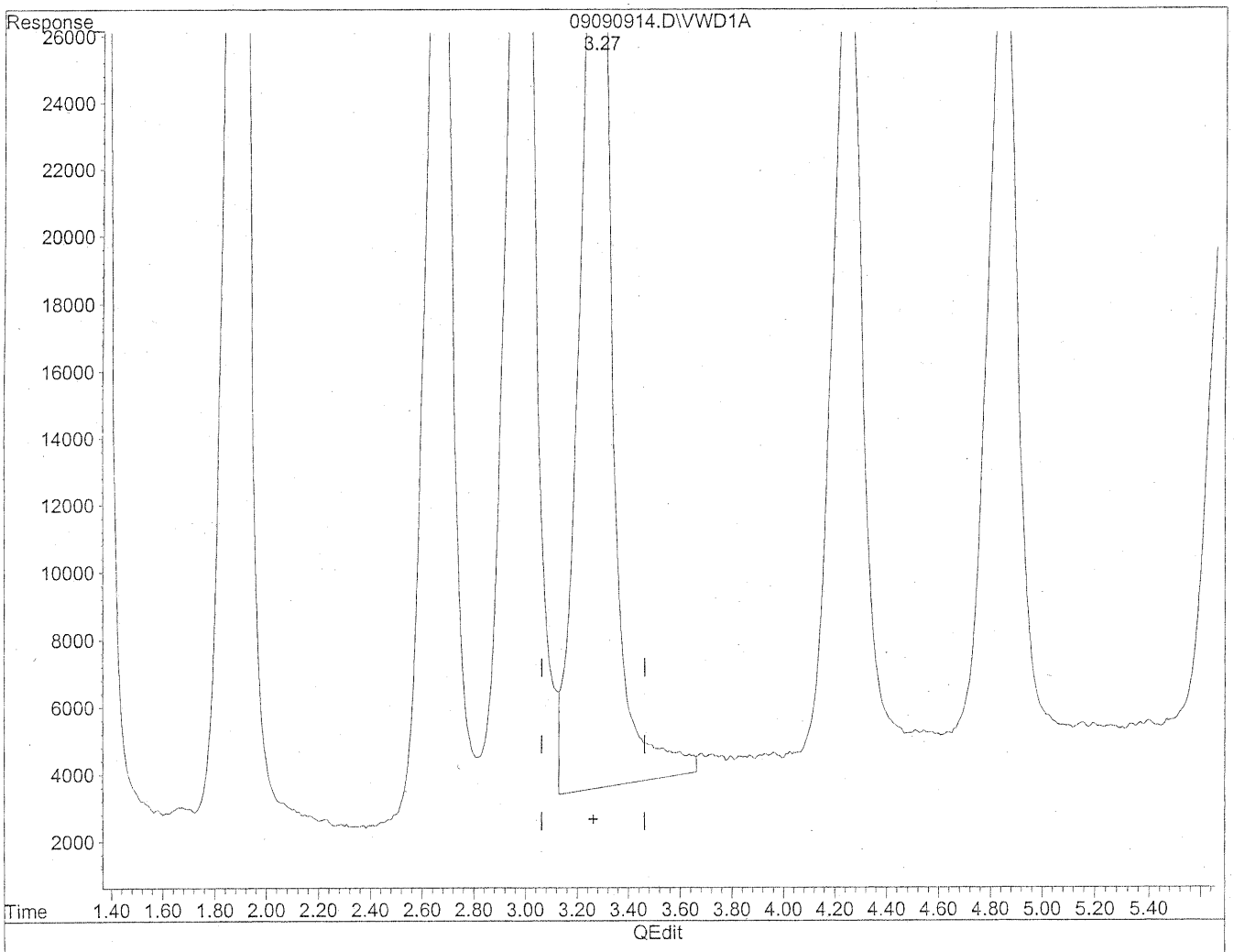
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	4290125	476.763	ng/ml
2)	Acetaldehyde	1.88	3109621	479.414	ng/ml
3)	Propionaldehyde	3.27	2494796	491.839	ng/mlm
4)	Crotonaldehyde	4.24	1900371	476.346	ng/ml
5)	Butyraldehyde	4.84	1886701	468.075	ng/ml
6)	Benzaldehyde	5.69	1323186	499.277	ng/ml
7)	Isovaleraldehyde	6.27	1631123	476.614	ng/ml
8)	Valeraldehyde	6.55	1598180	487.637	ng/ml
9)	o-Tolualdehyde	7.00	1023918	478.529	ng/ml
10)	m,p-Tolualdehyde	7.20	2205841	990.981	ng/ml
11)	Hexaldehyde	8.27	1425262	492.260	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.48	964881	511.672	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde

3.27min 515.231ng/ml

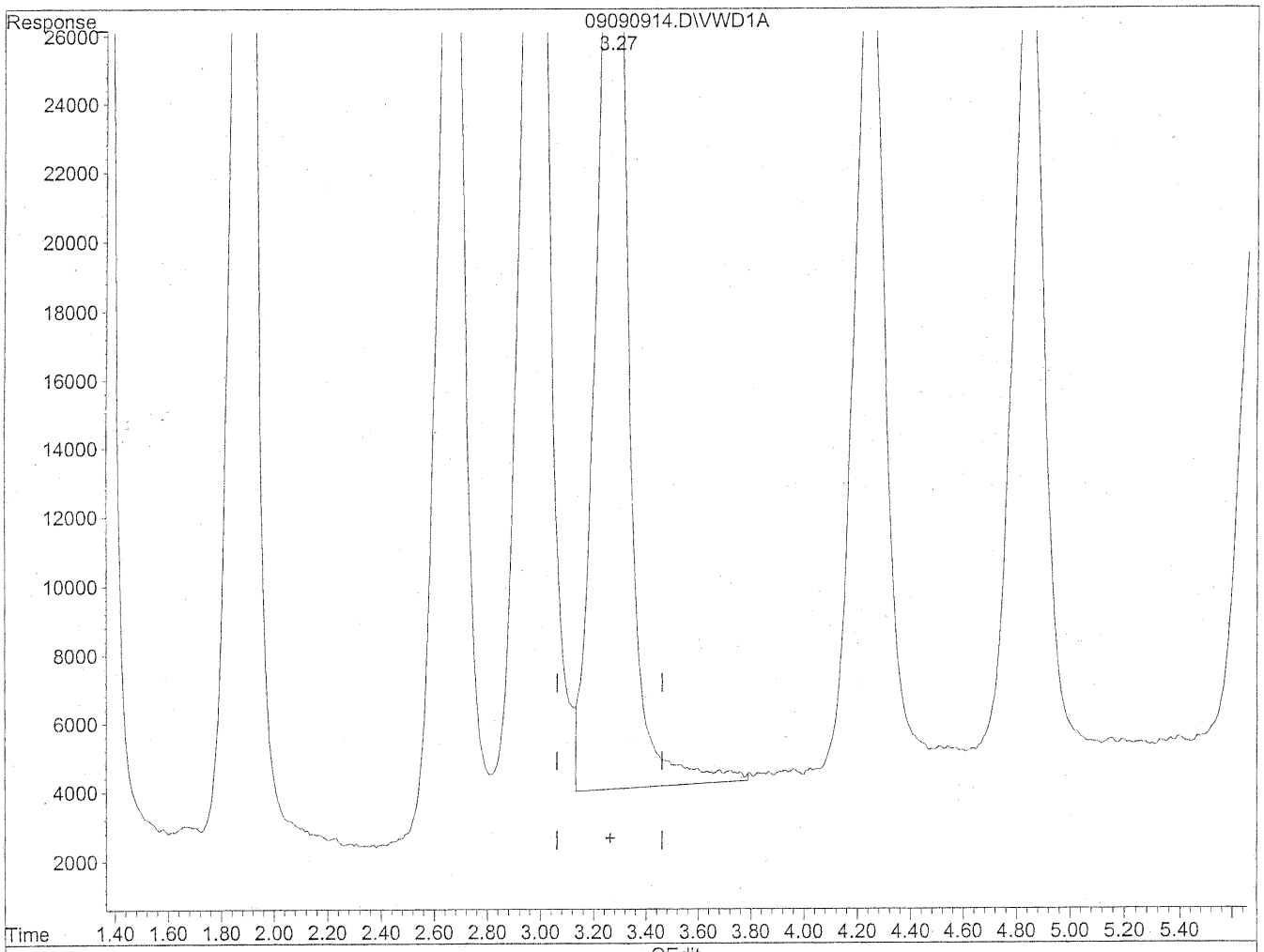
response 2613453

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde

3.27min 491.839ng/ml m

response 2494796

9/10/09

9/10/09

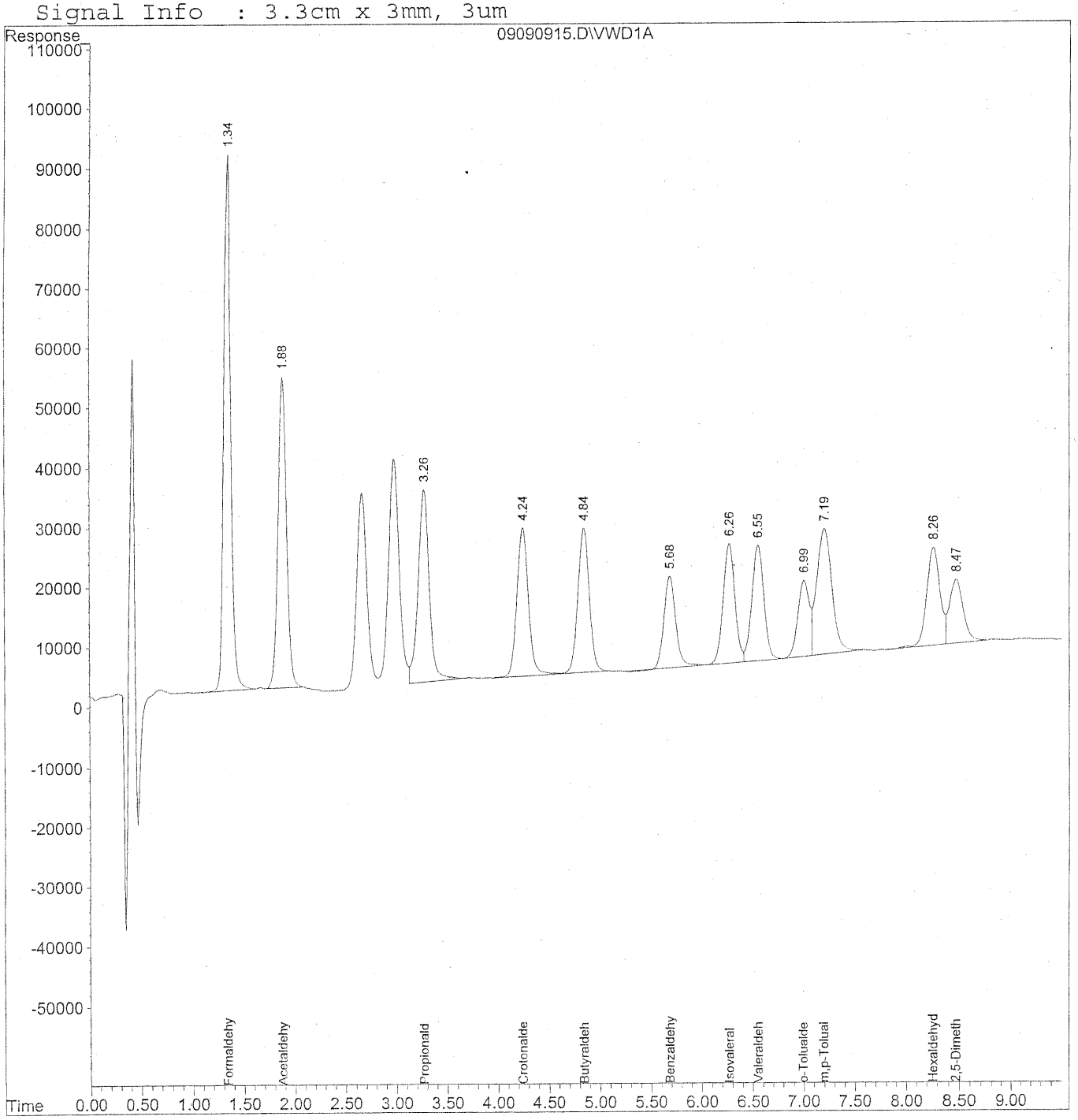
(+) = Expected Retention Time

09090914.D TO110909.M Thu Sep 10 08:52:57 2009

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090915.D Vial: 7
Acq On : 09-Sep-2009, 16:40 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090915.D Vial: 7
Acq On : 09-Sep-2009, 16:40 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

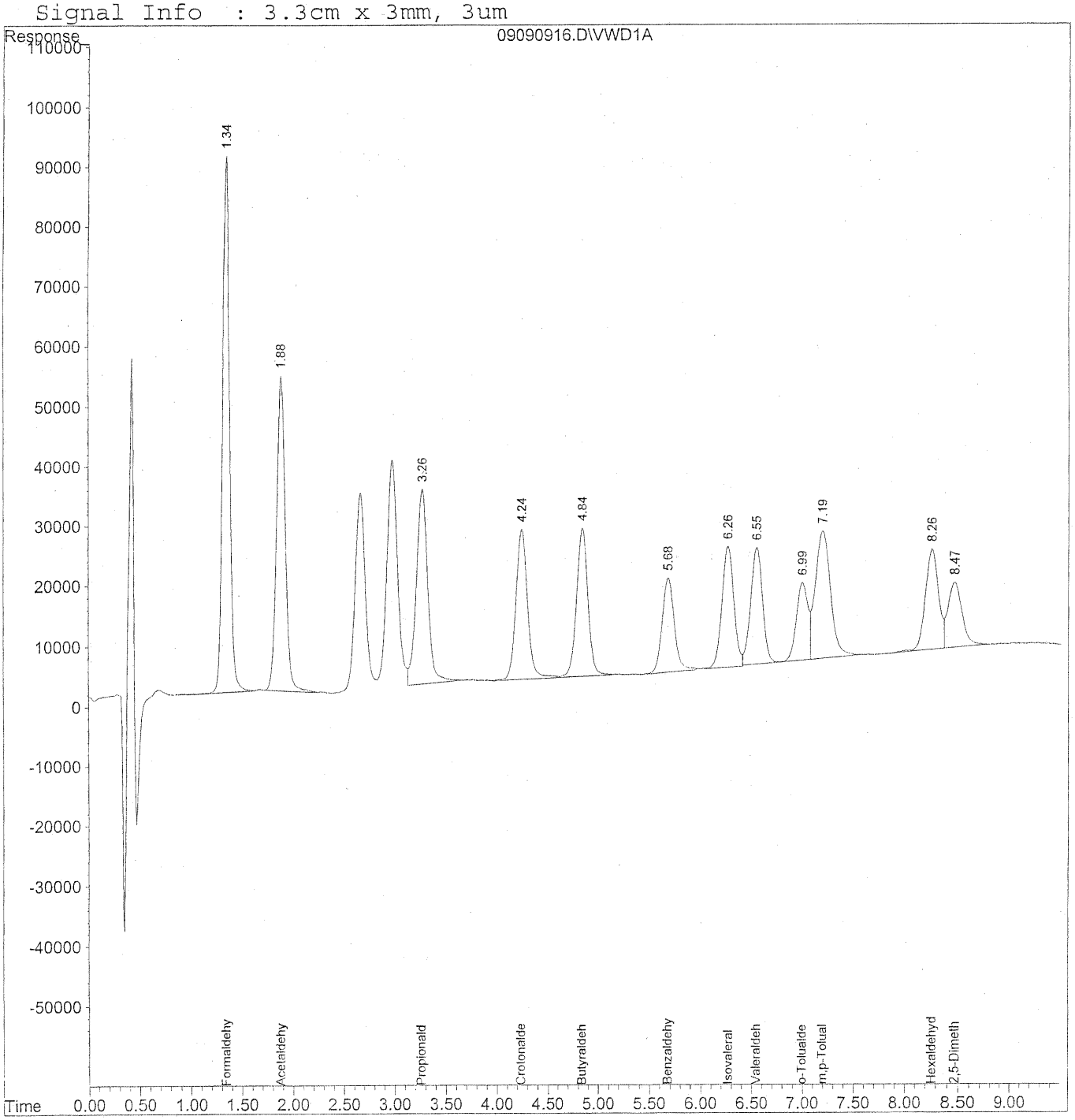
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	4242920	476.675	ng/ml
2)	Acetaldehyde	1.88	2996333	465.530	ng/ml
3)	Propionaldehyde	3.27	2520033	495.333	ng/ml
4)	Crotonaldehyde	4.24	1968873	499.829	ng/ml
5)	Butyraldehyde	4.84	1894865	474.705	ng/ml
6)	Benzaldehyde	5.68	1238947	466.007	ng/ml
7)	Isovaleraldehyde	6.27	1614213	474.093	ng/ml
8)	Valeraldehyde	6.55	1593172	485.301	ng/ml
9)	o-Tolualdehyde	7.00	1018615	479.067	ng/ml
10)	m,p-Tolualdehyde	7.20	2181093	980.898	ng/ml
11)	Hexaldehyde	8.26	1423115	491.568	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	956005	504.834	ng/ml

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

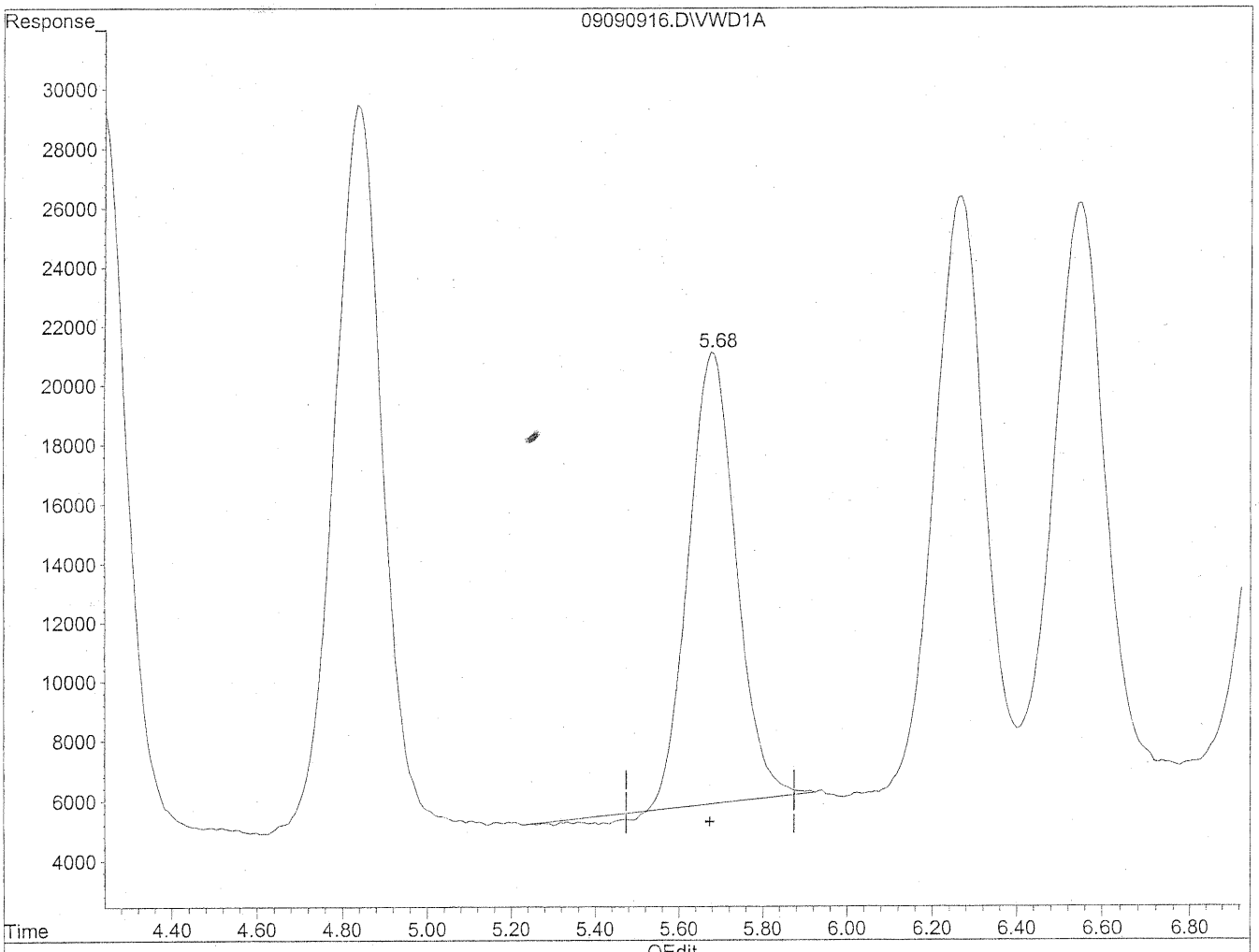
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	4239441	476.706	ng/ml
2)	Acetaldehyde	1.88	3088021	481.187	ng/ml
3)	Propionaldehyde	3.27	2504937	491.959	ng/ml
4)	Crotonaldehyde	4.24	1993623	504.650	ng/ml
5)	Butyraldehyde	4.84	1946571	487.492	ng/ml
6)	Benzaldehyde	5.68	1291253	488.260	ng/mlm
7)	Isovaleraldehyde	6.26	1639714	481.982	ng/mlm
8)	Valeraldehyde	6.55	1572954	479.264	ng/ml
9)	o-Tolualdehyde	7.00	1012283	476.287	ng/ml
10)	m,p-Tolualdehyde	7.20	2206747	993.357	ng/ml
11)	Hexaldehyde	8.26	1418487	490.030	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	962409	508.613	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(6) Benzaldehyde

5.68min 446.383ng/ml

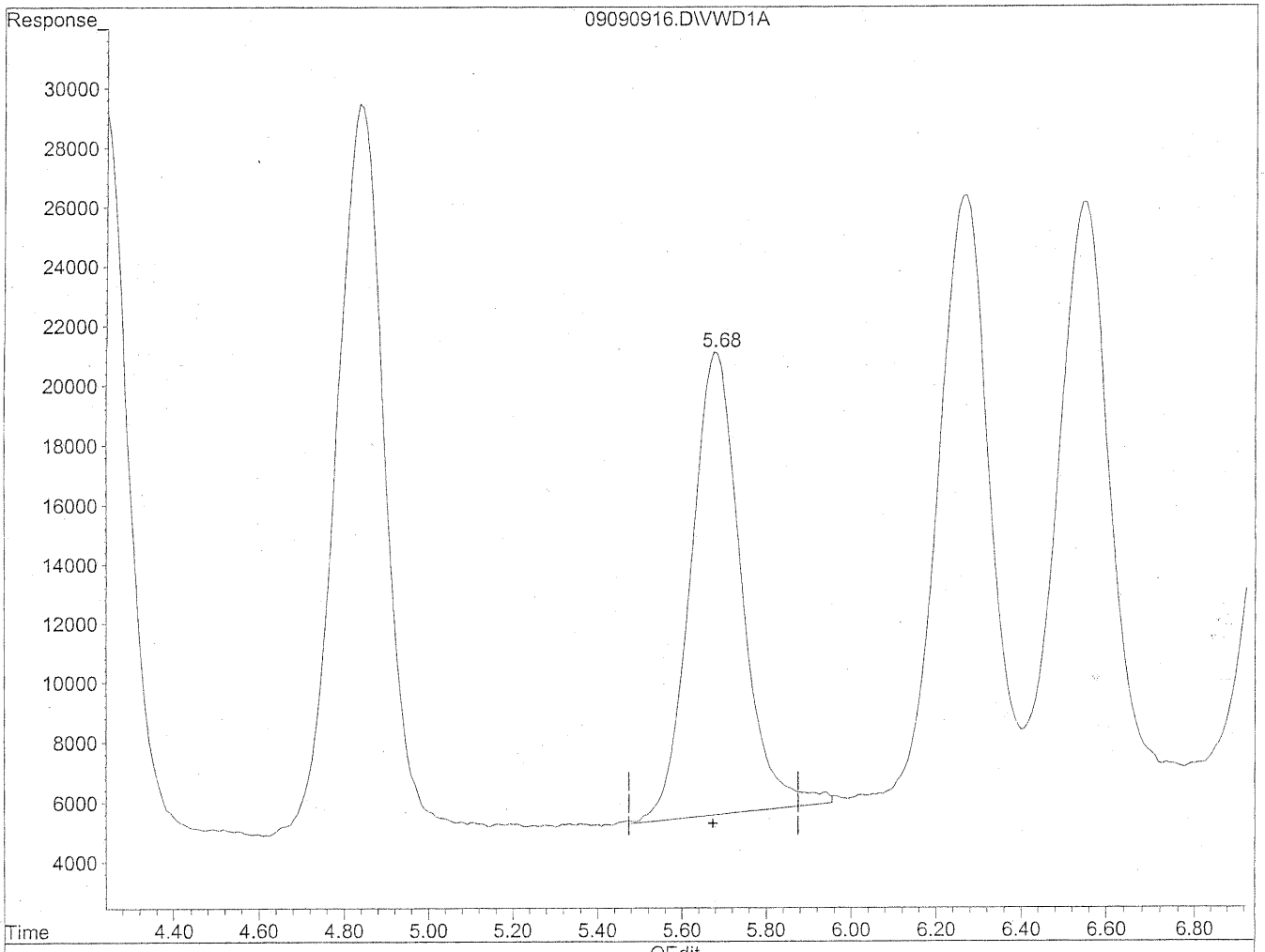
response 1180507

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(6) Benzaldehyde

5.68min 488.260ng/ml m

response 1291253

9/10/09

KE 9/10/09

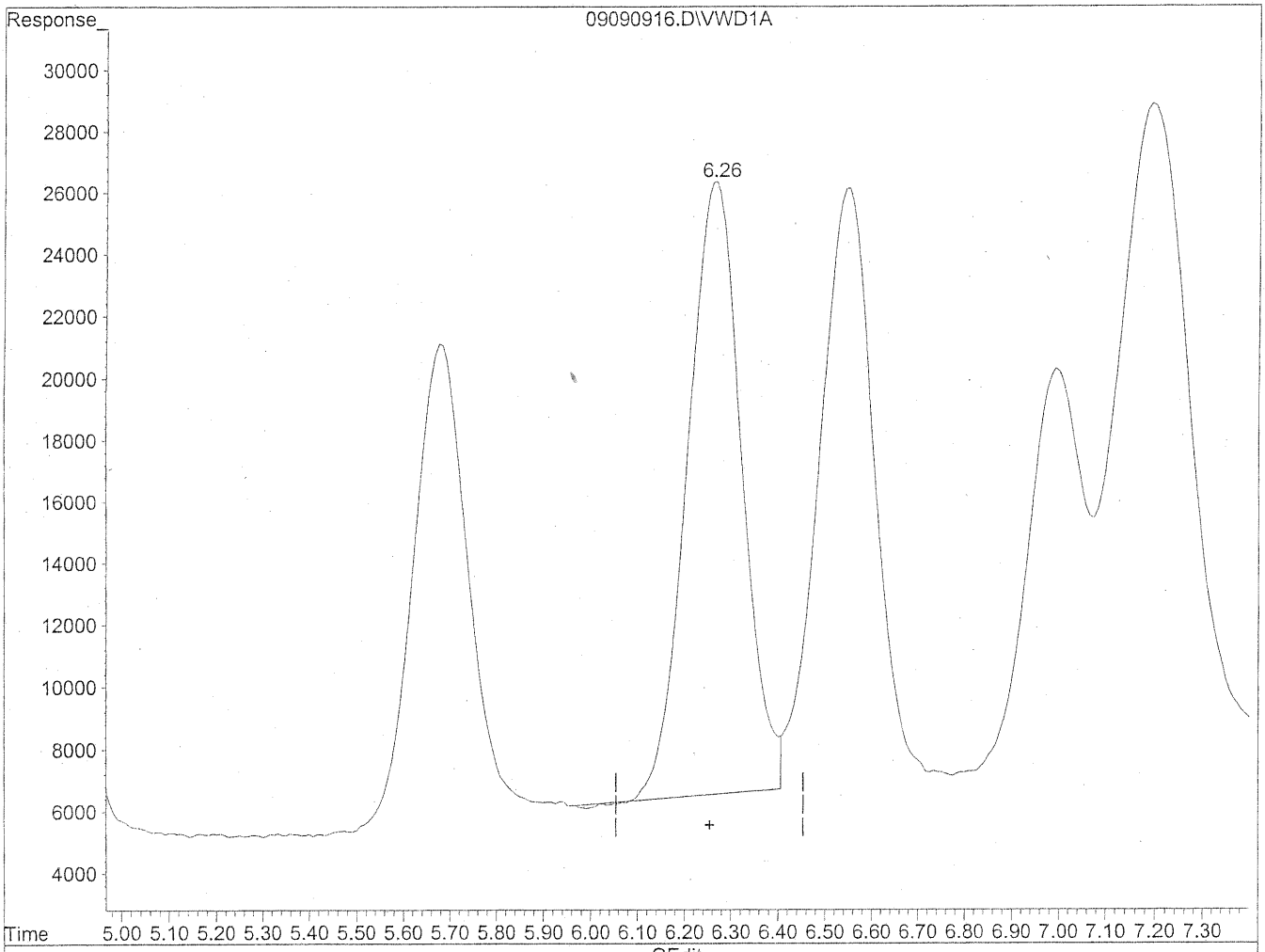
144

(+) = Expected Retention Time
09090916.D TO110909.M Thu Sep 10 08:54:17 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



QEdit

(7) Isovaleraldehyde

6.27min 466.813ng/ml

response 1588109

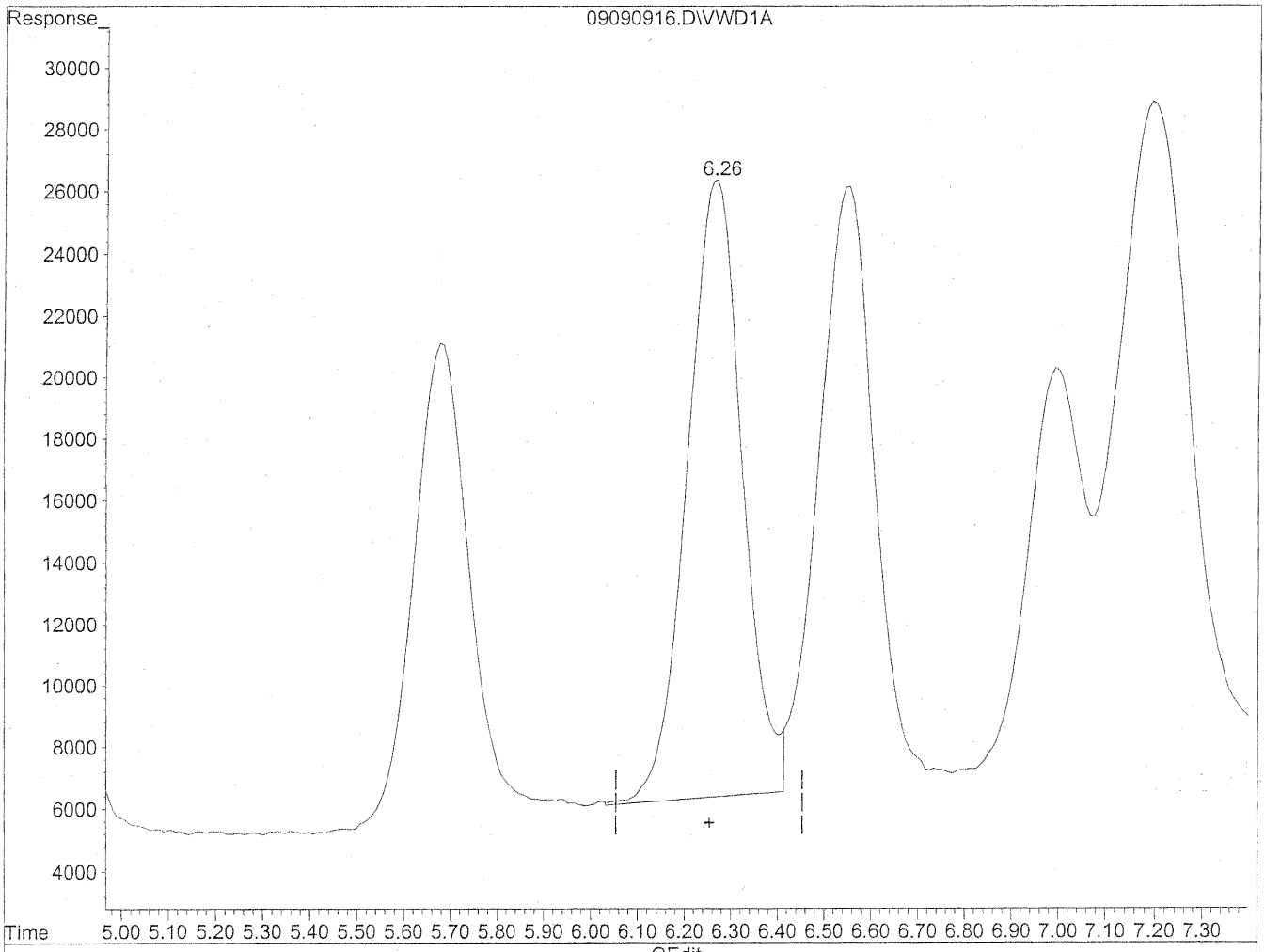
(+) = Expected Retention Time

09090916.D TO110909.M Thu Sep 10 08:54:21 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



QEdit

(7) Isovaleraldehyde

6.26min 481.982ng/ml m

response 1639714

9/10/09

KR 9/10/09

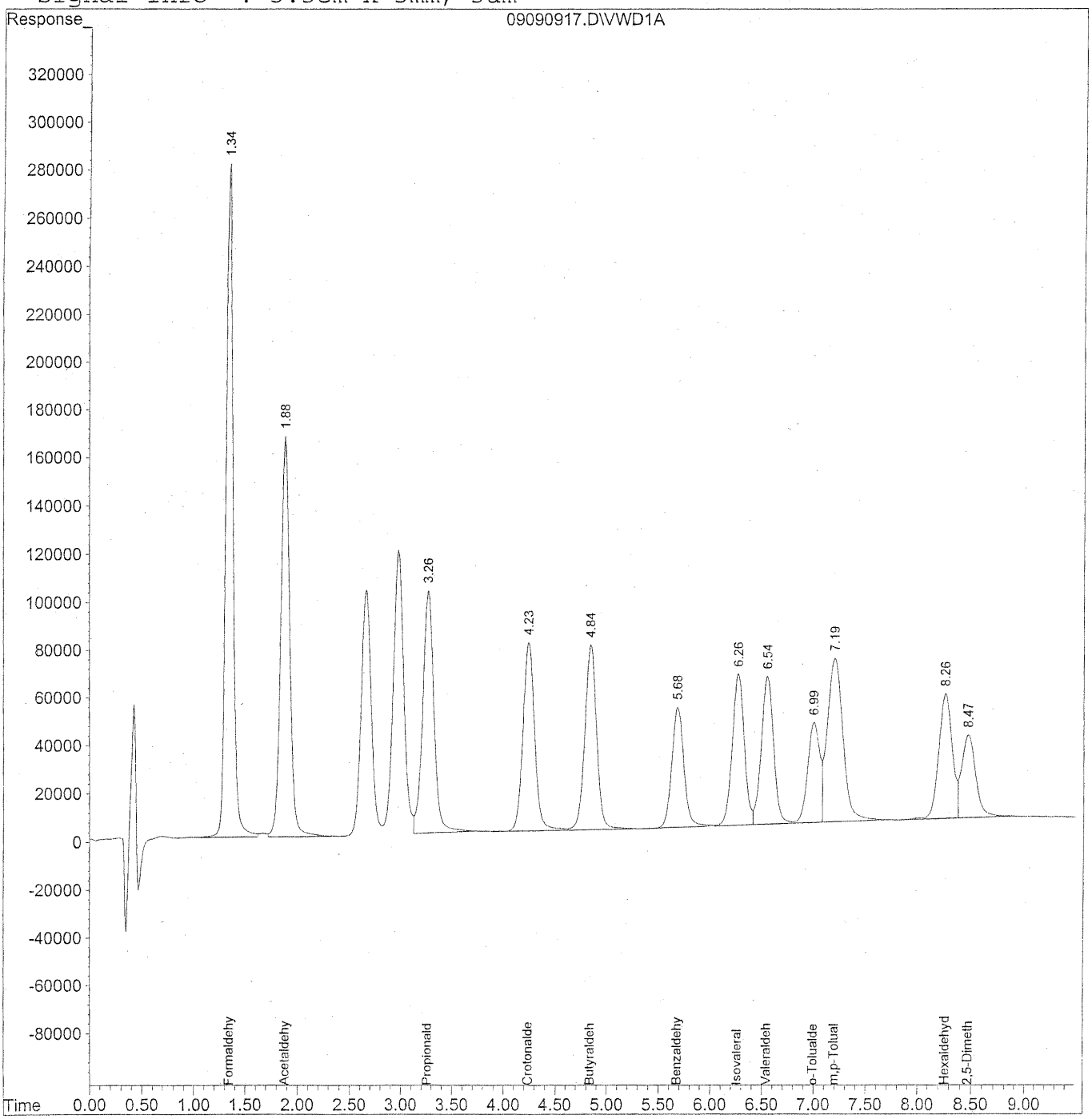
(+) = Expected Retention Time

09090916.D TO110909.M Thu Sep 10 08:54:27 2009

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090917.D Vial: 6
Acq On : 09-Sep-2009, 17:03 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090917.D Vial: 6
Acq On : 09-Sep-2009, 17:03 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	13461963	1514.248	ng/ml
2)	Acetaldehyde	1.88	9836721	1531.865	ng/ml
3)	Propionaldehyde	3.26	7740242	1520.232	ng/ml
4)	Crotonaldehyde	4.24	6180043	1561.774	ng/ml
5)	Butyraldehyde	4.84	6161274	1540.616	ng/ml
6)	Benzaldehyde	5.68	4059200	1534.243	ng/ml
7)	Isovaleraldehyde	6.27	5115478	1502.821	ng/ml
8)	Valeraldehyde	6.55	5104937	1556.624	ng/ml
9)	o-Tolualdehyde	7.00	3347391	1575.714	ng/ml
10)	m,p-Tolualdehyde	7.20	7133126	3209.878	ng/ml
11)	Hexaldehyde	8.26	4465907	1543.128	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	3088612	1632.078	ng/ml

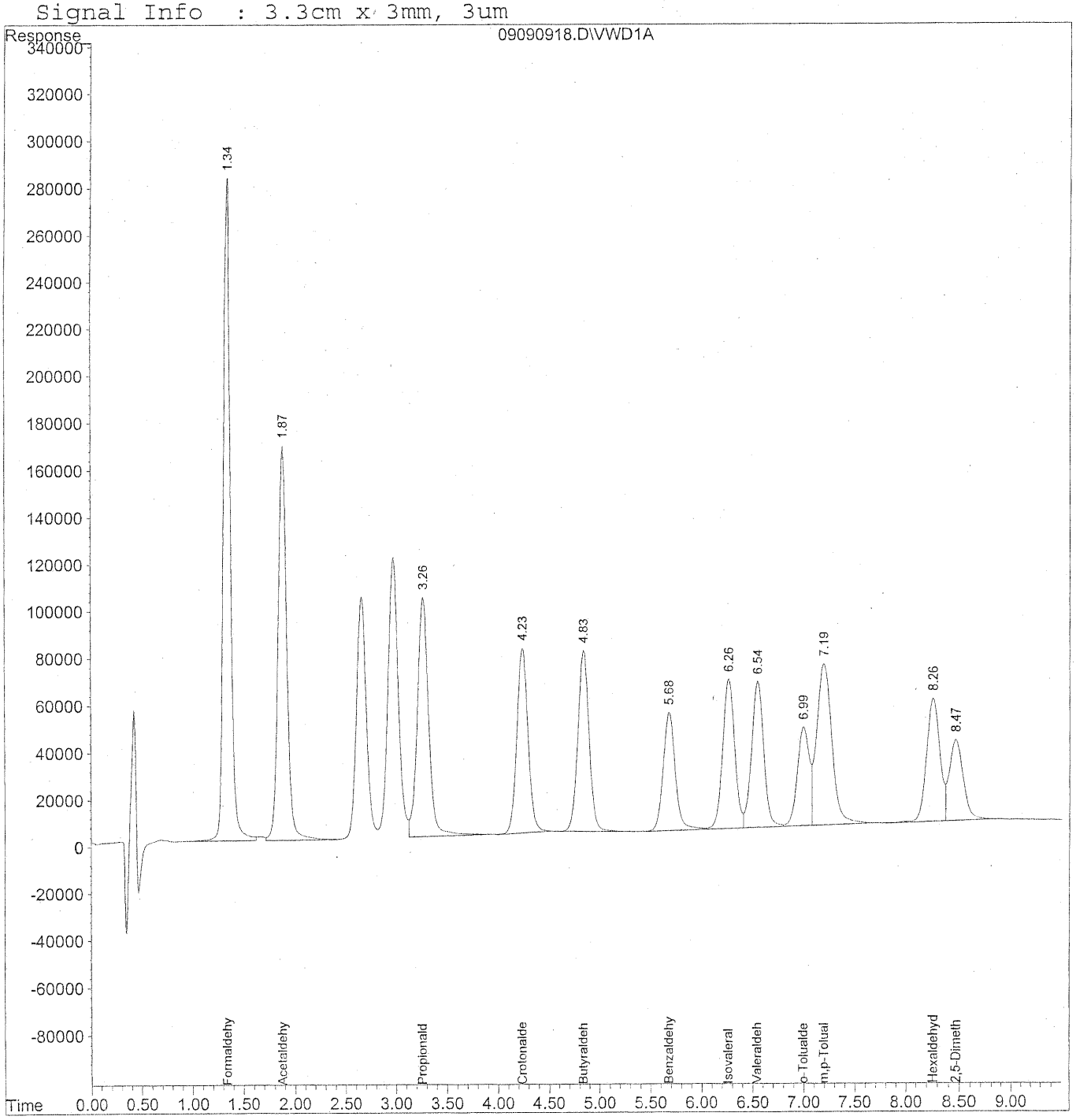
(f)=RT Delta > 1/2 Window (m)=manual int.
09090917.D TO110909.M Thu Sep 10 10:44:33 2009 Page 1

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090918.D Vial: 6
Acq On : 09-Sep-2009, 17:14 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:55 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090918.D Vial: 6
Acq On : 09-Sep-2009, 17:14 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:55 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

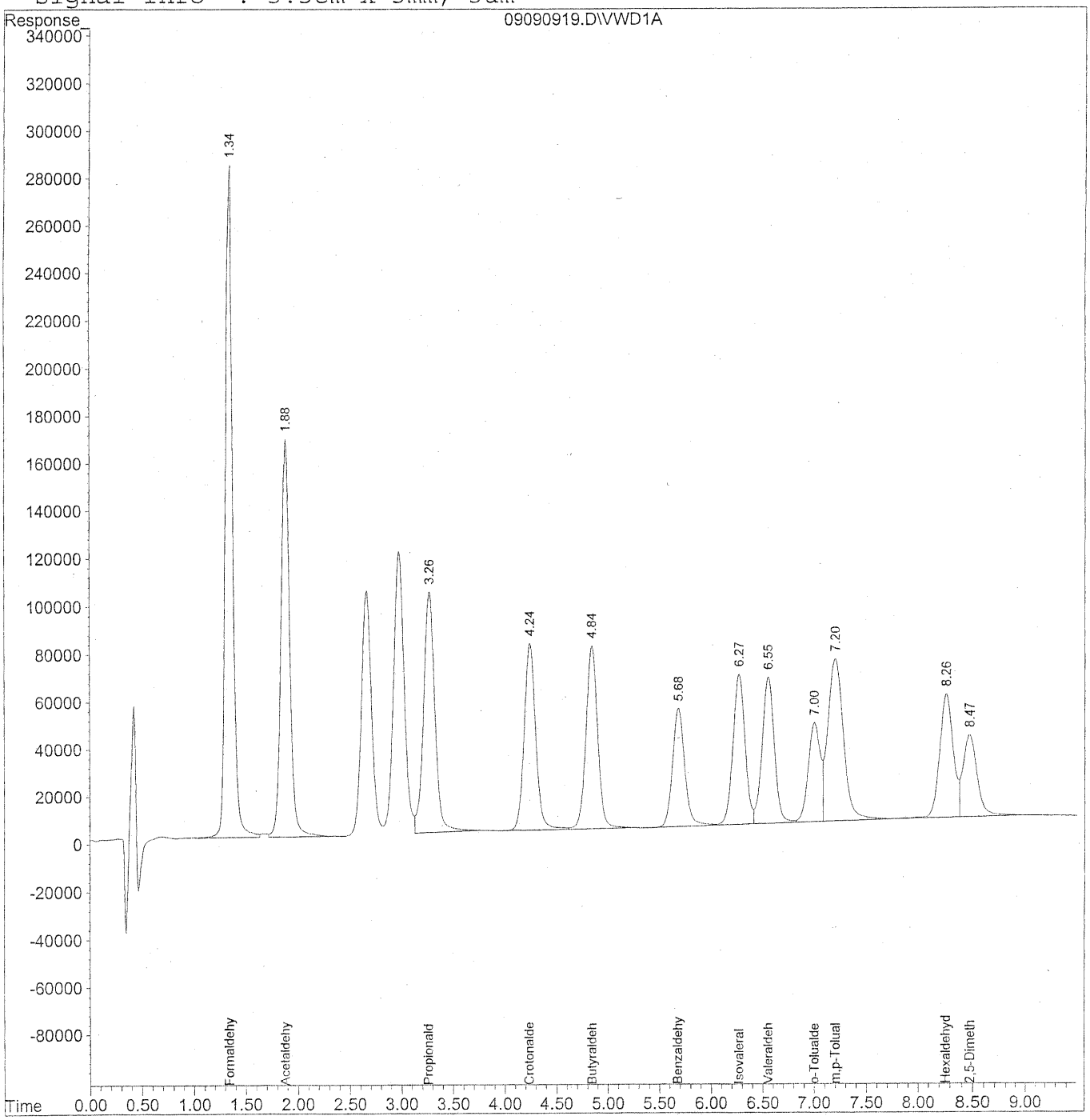
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	13578339	1534.981	ng/ml
2)	Acetaldehyde	1.88	9942887	1551.020	ng/ml
3)	Propionaldehyde	3.26	7876607	1547.881	ng/ml
4)	Crotonaldehyde	4.24	6053894	1529.058	ng/ml
5)	Butyraldehyde	4.84	6038847	1511.965	ng/ml
6)	Benzaldehyde	5.68	4163474	1571.850	ng/ml
7)	Isovaleraldehyde	6.27	5182178	1528.173	ng/ml
8)	Valeraldehyde	6.55	5176264	1571.132	ng/ml
9)	o-Tolualdehyde	7.00	3396097	1598.500	ng/ml
10)	m,p-Tolualdehyde	7.20	7179077	3215.253	ng/ml
11)	Hexaldehyde	8.26	4448983	1533.800	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	3056583	1602.761	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090919.D Vial: 6
Acq On : 09-Sep-2009, 17:26 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090919.D Vial: 6
Acq On : 09-Sep-2009, 17:26 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

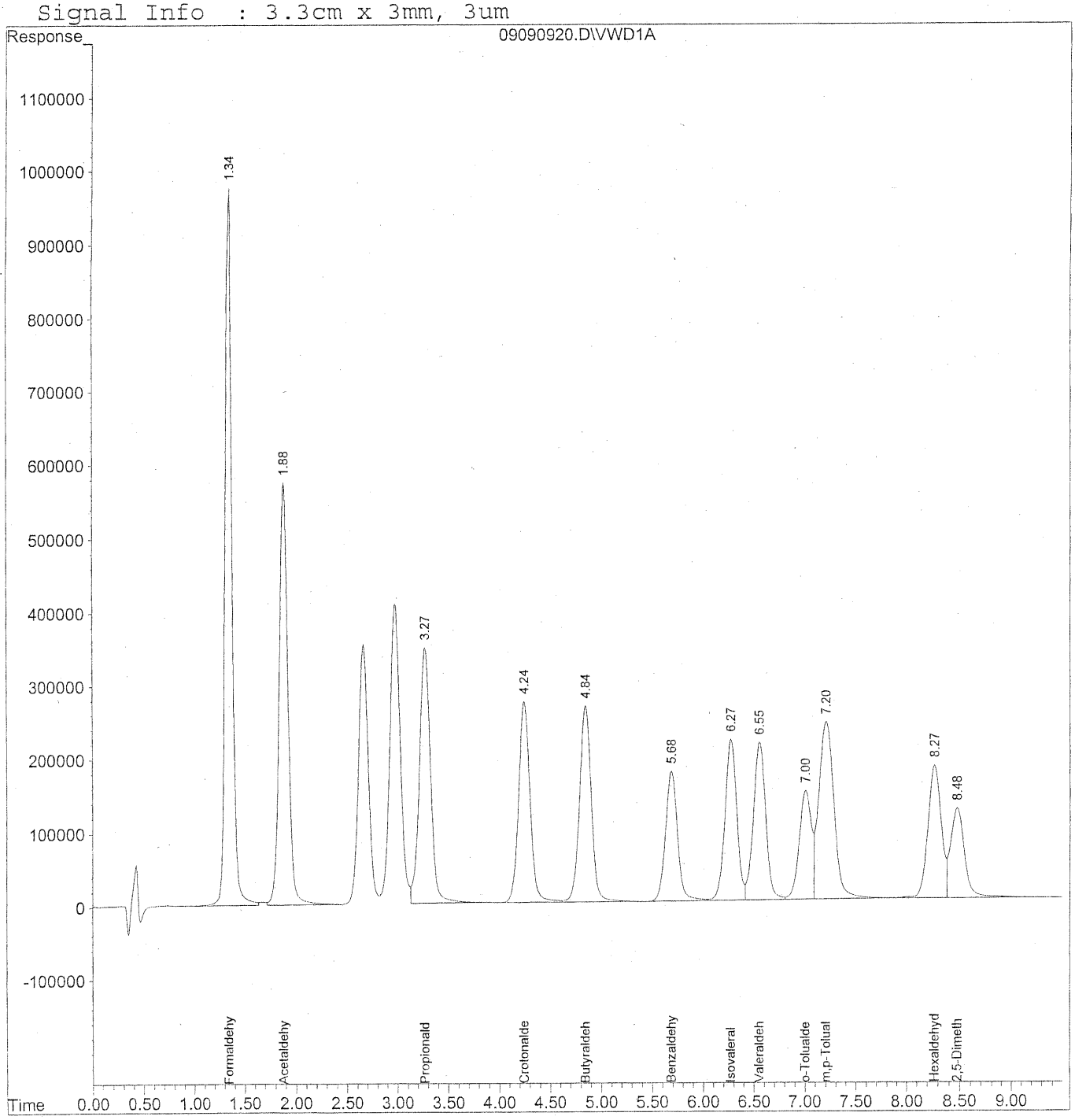
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	13548320	1530.469	ng/ml
2)	Acetaldehyde	1.88	9888425	1541.106	ng/ml
3)	Propionaldehyde	3.27	7759817	1522.663	ng/ml
4)	Crotonaldehyde	4.24	6211709	1571.700	ng/ml
5)	Butyraldehyde	4.84	6160753	1545.118	ng/ml
6)	Benzaldehyde	5.68	4131112	1556.228	ng/ml
7)	Isovaleraldehyde	6.27	5170579	1523.089	ng/ml
8)	Valeraldehyde	6.55	5170597	1567.526	ng/ml
9)	o-Tolualdehyde	7.00	3376687	1587.343	ng/ml
10)	m,p-Tolualdehyde	7.20	7206393	3225.643	ng/ml
11)	Hexaldehyde	8.27	4462344	1538.905	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.47	3155386	1656.115	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090920.D Vial: 5
Acq On : 09-Sep-2009, 17:37 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090920.D Vial: 5
Acq On : 09-Sep-2009, 17:37 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	46422998	5243.497	ng/ml
2)	Acetaldehyde	1.88	33949113	5290.994	ng/ml
3)	Propionaldehyde	3.27	26460164	5193.957	ng/ml
4)	Crotonaldehyde	4.24	21469148	5427.351	ng/ml
5)	Butyraldehyde	4.84	21371531	5356.965	ng/ml
6)	Benzaldehyde	5.69	14455457	5444.003	ng/ml
7)	Isovaleraldehyde	6.27	17854488	5258.118	ng/ml
8)	Valeraldehyde	6.55	17905508	5426.435	ng/ml
9)	o-Tolualdehyde	7.00	11990582	5636.154	ng/ml
10)	m,p-Tolualdehyde	7.20	25039167	11203.076	ng/ml
11)	Hexaldehyde	8.27	15466841	5333.634	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.48	11107870	5820.635	ng/ml

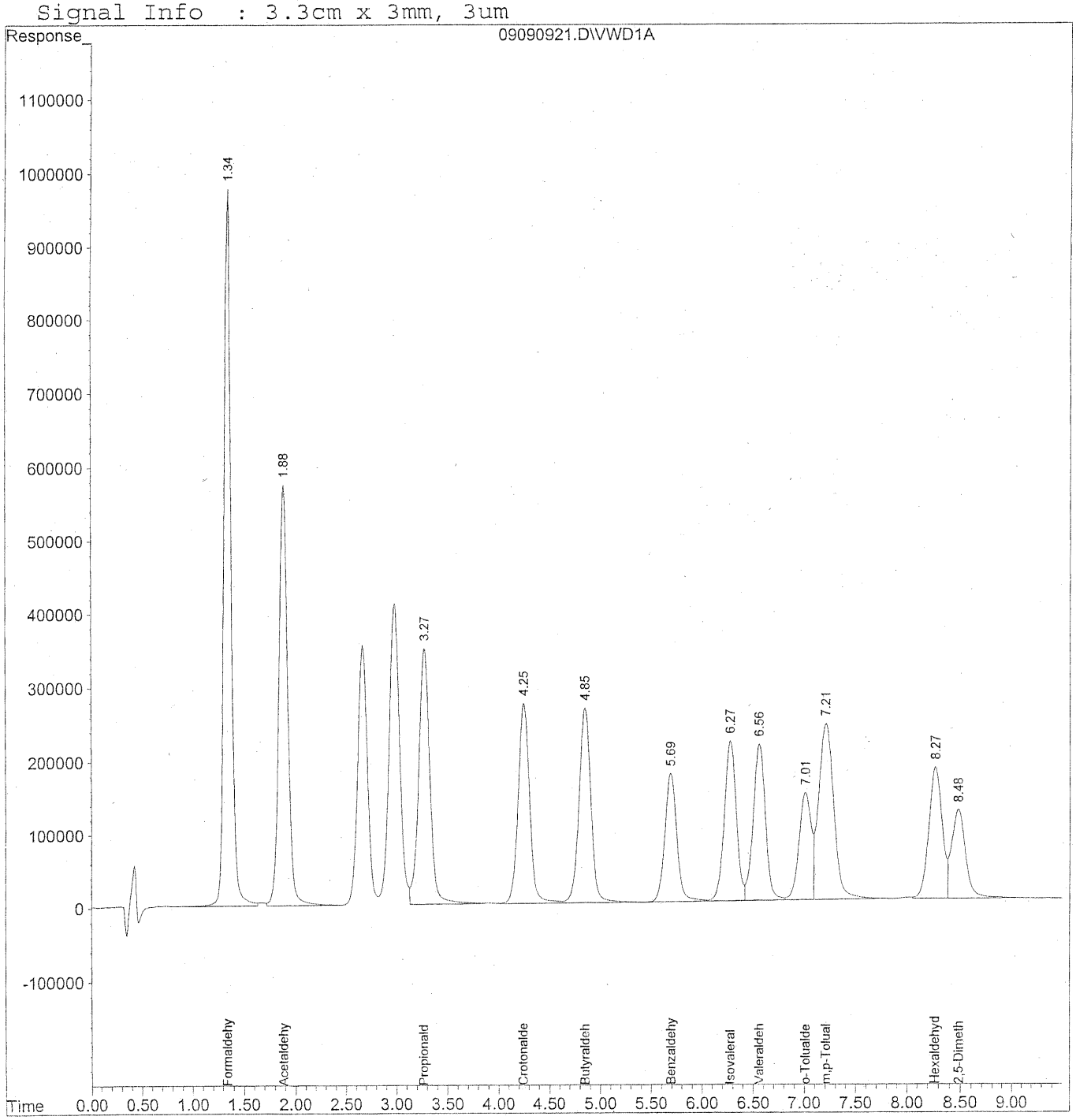
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090921.D Vial: 5
Acq On : 09-Sep-2009, 17:49 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:57 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090921.D Vial: 5
Acq On : 09-Sep-2009, 17:49 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:57 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	46464064	5198.646	ng/ml
2)	Acetaldehyde	1.88	33977292	5236.353	ng/ml
3)	Propionaldehyde	3.27	26758092	5177.051	ng/ml
4)	Crotonaldehyde	4.25	21604348	5366.312	ng/ml
5)	Butyraldehyde	4.85	21444271	5303.711	ng/ml
6)	Benzaldehyde	5.69	14435192	5328.040	ng/ml
7)	Isovaleraldehyde	6.28	17875029	5200.288	ng/ml
8)	Valeraldehyde	6.56	17921465	5321.025	ng/ml
9)	o-Tolualdehyde	7.01	11986554	5544.716	ng/ml
10)	m,p-Tolualdehyde	7.21	25032033	10984.299	ng/ml
11)	Hexaldehyde	8.27	15380456	5215.387	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.48	11113181	5654.303	ng/ml

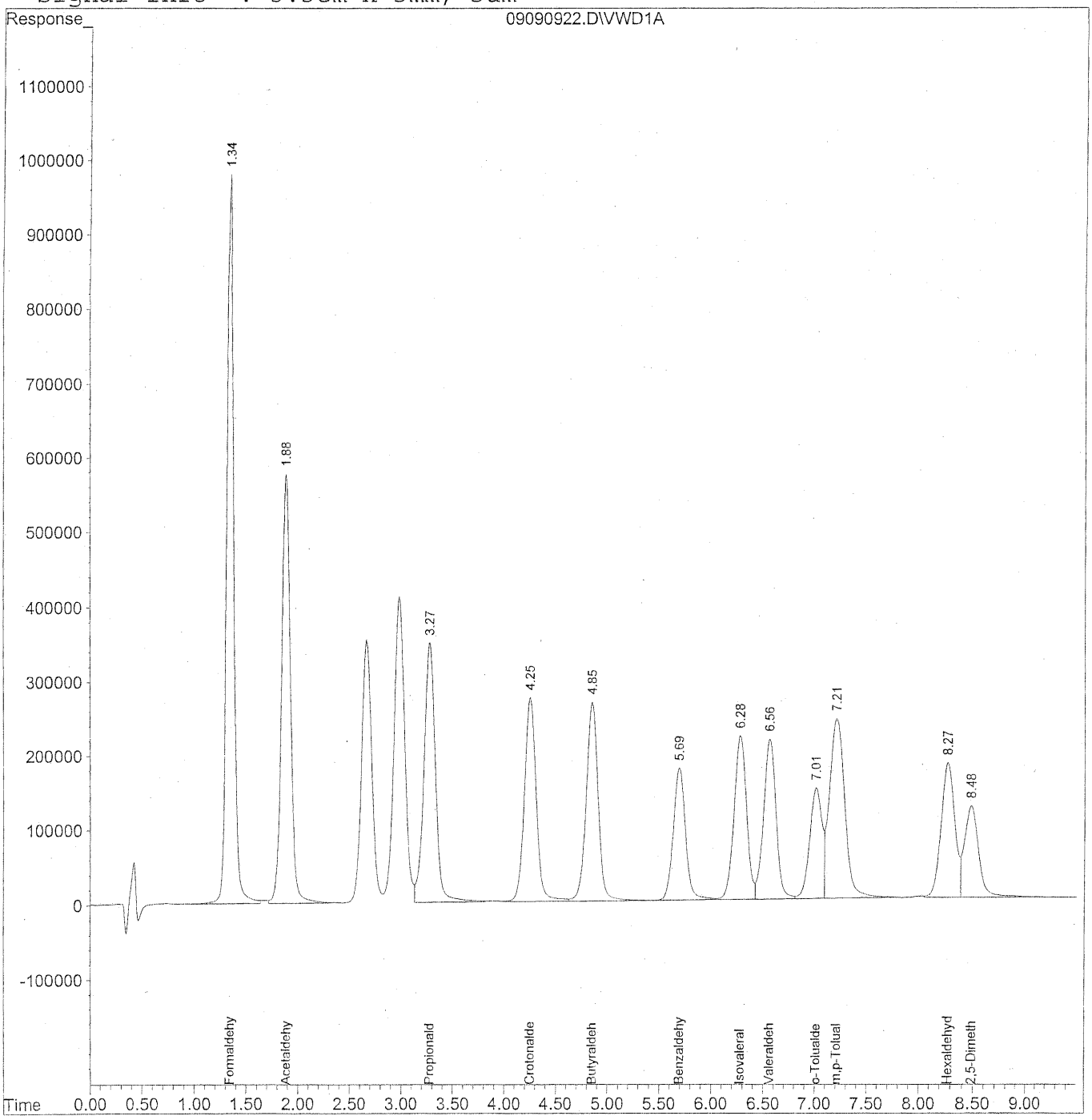
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090922.D Vial: 5
Acq On : 09-Sep-2009, 18:00 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090922.D Vial: 5
Acq On : 09-Sep-2009, 18:00 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

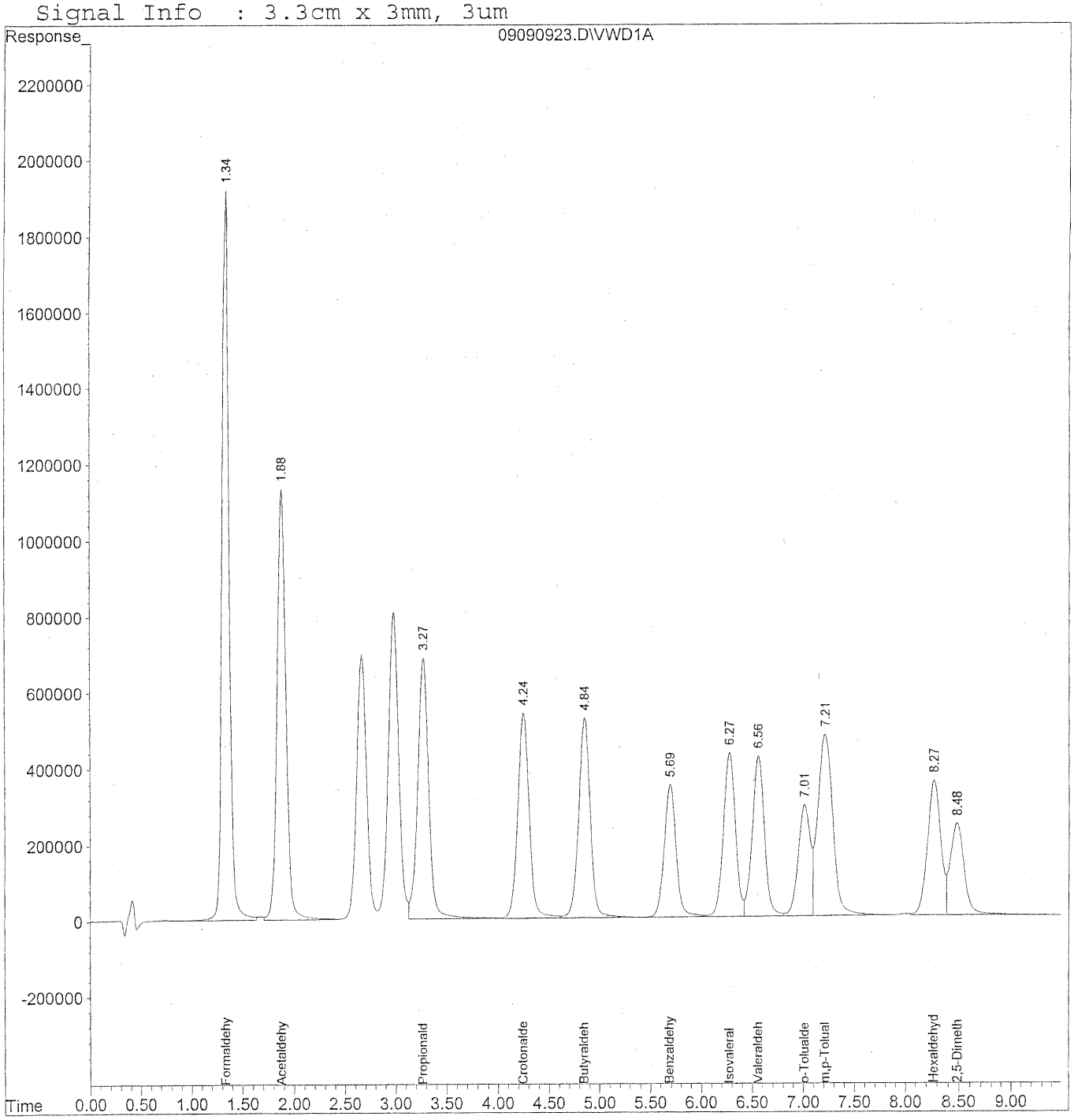
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	46648983	5218.936	ng/ml
2)	Acetaldehyde	1.88	34054104	5247.811	ng/ml
3)	Propionaldehyde	3.27	26843474	5188.585	ng/ml
4)	Crotonaldehyde	4.25	21717189	5391.323	ng/ml
5)	Butyraldehyde	4.85	21538832	5325.502	ng/ml
6)	Benzaldehyde	5.69	14515721	5358.432	ng/ml
7)	Isovaleraldehyde	6.28	17932725	5216.554	ng/ml
8)	Valeraldehyde	6.56	17988106	5340.390	ng/ml
9)	o-Tolualdehyde	7.01	12035186	5567.385	ng/ml
10)	m,p-Tolualdehyde	7.21	25134428	11029.519	ng/ml
11)	Hexaldehyde	8.28	15437631	5237.332	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.49	11198210	5697.308	ng/ml

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090923.D Vial: 4
Acq On : 09-Sep-2009, 18:11 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080901 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090923.D Vial: 4
Acq On : 09-Sep-2009, 18:11 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080901 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	91542792	10238.895	ng/ml
2)	Acetaldehyde	1.88	67198566	10353.832	ng/ml
3)	Propionaldehyde	3.27	52731710	10187.405	ng/ml
4)	Crotonaldehyde	4.25	42623472	10576.073	ng/ml
5)	Butyraldehyde	4.85	42304249	10456.015	ng/ml
6)	Benzaldehyde	5.69	28602353	10555.419	ng/ml
7)	Isovaleraldehyde	6.28	35277028	10259.685	ng/ml
8)	Valeraldehyde	6.56	35412579	10510.859	ng/ml
9)	o-Tolualdehyde	7.01	23892692	11049.929	ng/ml
10)	m,p-Tolualdehyde	7.21	49431359	21686.301	ng/ml
11)	Hexaldehyde	8.27	30345892	10294.528	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.48	21989696	11182.144	ng/ml

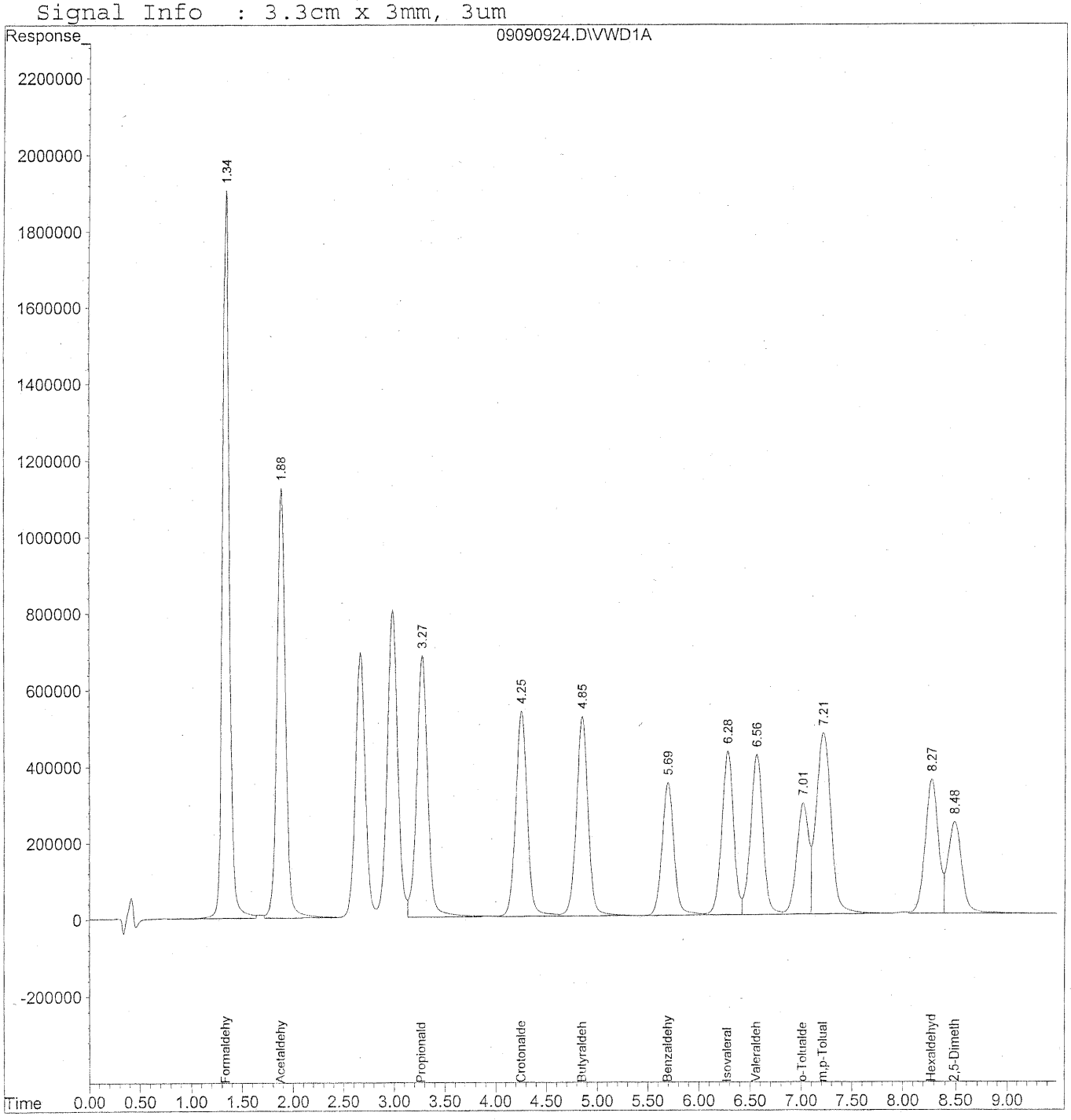
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090924.D Vial: 4
Acq On : 09-Sep-2009, 18:23 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090924.D Vial: 4
Acq On : 09-Sep-2009, 18:23 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	91301664	10216.742	ng/ml
2)	Acetaldehyde	1.88	67004053	10305.740	ng/ml
3)	Propionaldehyde	3.27	52551284	10108.517	ng/ml
4)	Crotonaldehyde	4.25	42531897	10476.390	ng/ml
5)	Butyraldehyde	4.85	42207282	10413.662	ng/ml
6)	Benzaldehyde	5.69	28552063	10464.403	ng/ml
7)	Isovaleraldehyde	6.28	35194712	10224.544	ng/ml
8)	Valeraldehyde	6.56	35338059	10393.485	ng/ml
9)	o-Tolualdehyde	7.01	23813504	10965.300	ng/ml
10)	m,p-Tolualdehyde	7.21	49315533	21467.660	ng/ml
11)	Hexaldehyde	8.28	30246038	10213.789	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.49	21823086	10931.999	ng/ml

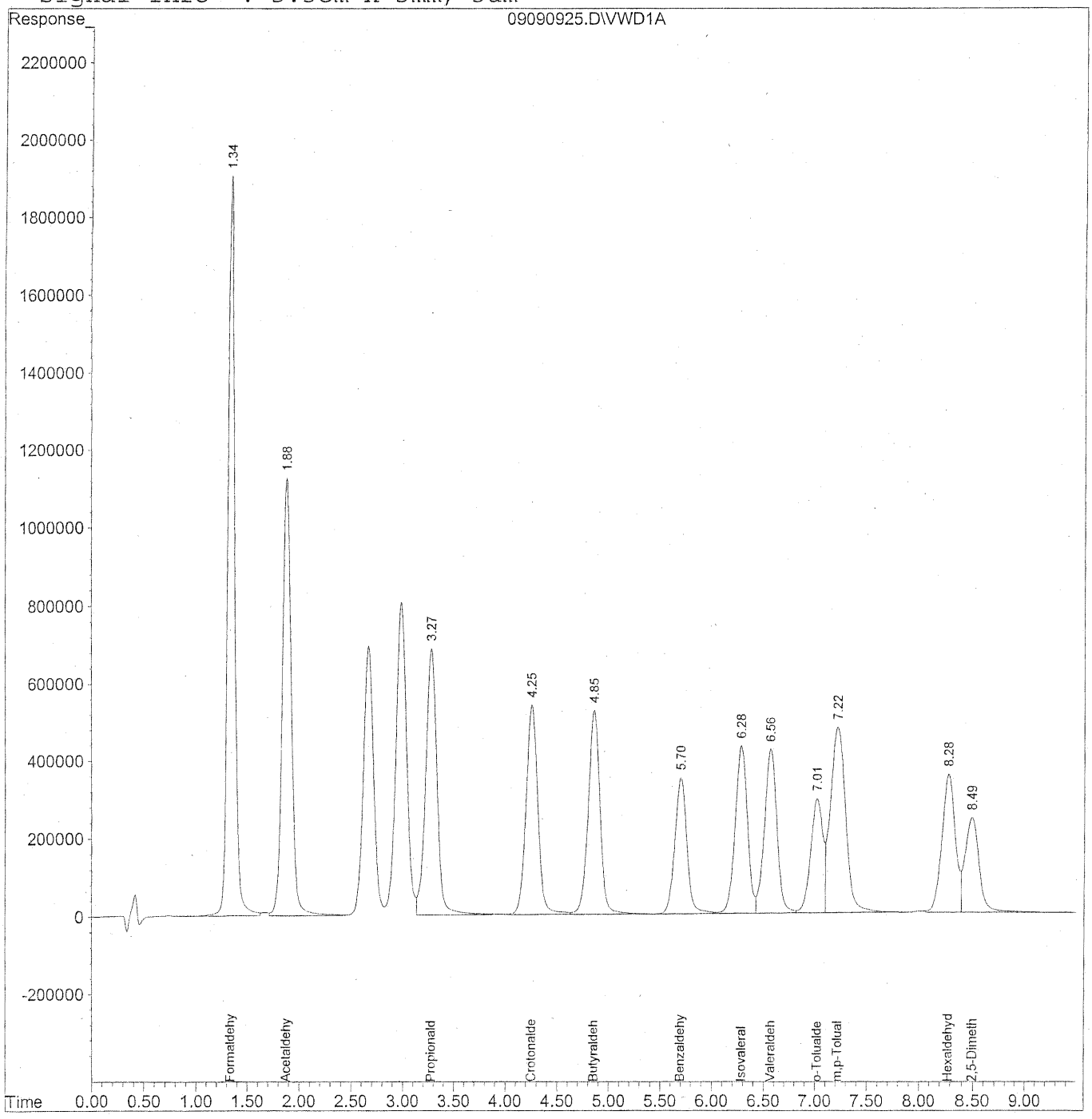
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090925.D Vial: 4
Acq On : 09-Sep-2009, 18:34 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090925.D Vial: 4
Acq On : 09-Sep-2009, 18:34 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

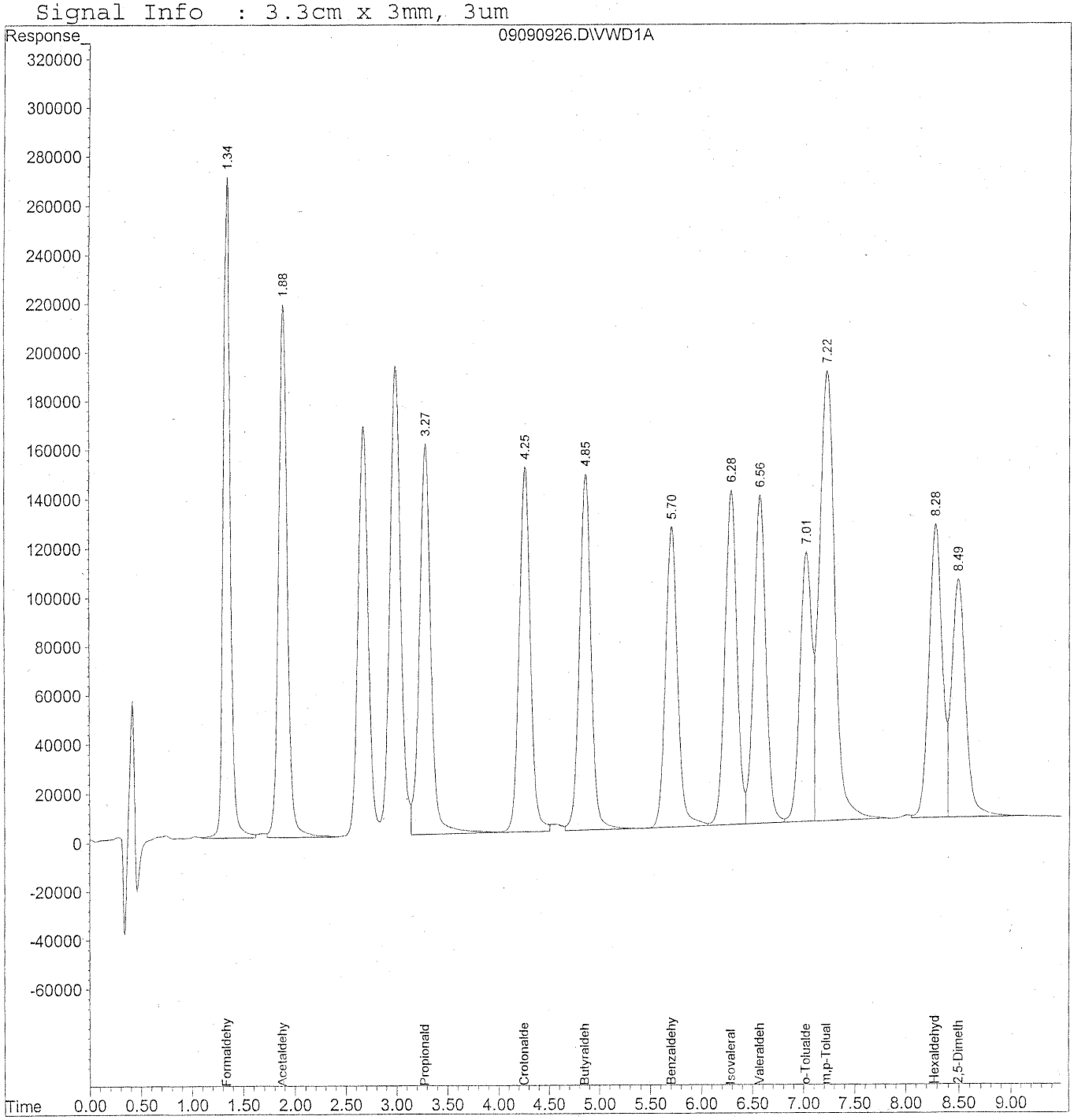
Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	91595894	10251.972	ng/ml
2)	Acetaldehyde	1.88	67244158	10345.249	ng/ml
3)	Propionaldehyde	3.28	52752024	10150.066	ng/ml
4)	Crotonaldehyde	4.25	42676337	10513.945	ng/ml
5)	Butyraldehyde	4.86	42347195	10450.266	ng/ml
6)	Benzaldehyde	5.70	28631645	10495.182	ng/ml
7)	Isovaleraldehyde	6.28	35288997	10253.979	ng/ml
8)	Valeraldehyde	6.57	35418570	10419.068	ng/ml
9)	o-Tolualdehyde	7.02	23869930	10994.623	ng/ml
10)	m,p-Tolualdehyde	7.22	49446486	21529.189	ng/ml
11)	Hexaldehyde	8.28	30343150	10249.463	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.49	22018475	11037.553	ng/ml

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090926.D Vial: 3
Acq On : 09-Sep-2009, 18:46 Operator: MD
Sample : ~1500ng/ml TO-11A ICV S21-07270907 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:30 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090926.D Vial: 3
Acq On : 09-Sep-2009, 18:46 Operator: MD
Sample : ~1500ng/ml TO-11A ICV S21-07270907 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:30 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	12986438	1453.521	ng/ml
2)	Acetaldehyde	1.88	13048264	2007.424	ng/ml
3)	Propionaldehyde	3.28	12411611	2388.130	ng/ml
4)	Crotonaldehyde	4.26	11686650	2879.178	ng/ml
5)	Butyraldehyde	4.86	11660734	2877.588	ng/ml
6)	Benzaldehyde	5.70	10075461	3693.249	ng/ml
7)	Isovaleraldehyde	6.28	11105935	3227.069	ng/ml
8)	Valeraldehyde	6.57	11151355	3280.390	ng/ml
9)	o-Tolualdehyde	7.02	8894551	4053.169	ng/ml
10)	m,p-Tolualdehyde	7.22	19279847	8394.519	ng/ml
11)	Hexaldehyde	8.28	10194419	3443.522	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.49	8824280	4423.488	ng/ml

CONTINUING CALIBRATION STANDARDS

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNPH Analysis by HPLC

Printed : 09/18/09

Instrument : LC#02 Date Acquired : 09/15/09

Detector : UV-VIS 360 Sample Amount : 3ul

Analyst : MD Client & PAI Job# : EH & E P0903144A

SAMPLE RESULT SUMMARY

Sample Information	MDL	1500ng/ml TO 11A S21-09090903	% Diff	ACN blank lot CY331	MB-4 front 1.0ml lot 5855/5994	MB-4 back 1.0ml lot 5855/5994	P0903144-001 back 1.0ml	P0903144-002 back 1.0ml	P0903144-003 back 1.0ml
Dilution	1.0			1.0	1.0	1.0	1.0	1.0	1.0
Sample Volume (L)	NA			NA	NA	NA	102.40	99.80	103.80
Final Vol.(ml)	1.0			1.0	1.0	1.0	1.0	1.0	1.0

	ng/sample	ng/sample		ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample
Formaldehyde	100.00	1537.1	2.5%	ND	ND	ND	ND	ND	ND
Acetaldehyde	100.00	1530.9	2.1%	ND	ND	ND	272.376	334.399	425.847
Propionaldehyde	100.00	1532.9	2.2%	ND	ND	ND	ND	ND	ND
Crotonaldehyde	100.00	1542.2	2.8%	ND	ND	ND	ND	ND	ND
Butyraldehyde	100.00	1547.8	3.2%	ND	ND	ND	ND	ND	ND
Benzaldehyde	100.00	1483.6	1.1%	ND	ND	ND	ND	ND	ND
Isovaleraldehyde	100.00	1500.7	0.0%	ND	ND	ND	ND	ND	ND
Valeraldehyde	100.00	1479.5	1.4%	ND	ND	ND	ND	ND	ND
o-Tolualdehyde	100.00	1507.4	0.5%	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde	200.00	3068.3	2.3%	ND	ND	ND	ND	ND	ND
Hexaldehyde	100.00	1521.0	1.4%	ND	ND	ND	ND	ND	ND
2,5-Dimethylbenzaldehyde	100.00	1552.5	3.5%	ND	ND	ND	ND	ND	ND

	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Formaldehyde			NA	NA	NA	ND	ND	ND
Acetaldehyde			NA	NA	NA	2.660	3.351	4.103
Propionaldehyde			NA	NA	NA	ND	ND	ND
Crotonaldehyde			NA	NA	NA	ND	ND	ND
Butyraldehyde			NA	NA	NA	ND	ND	ND
Benzaldehyde			NA	NA	NA	ND	ND	ND
Isovaleraldehyde			NA	NA	NA	ND	ND	ND
Valeraldehyde			NA	NA	NA	ND	ND	ND
o-Tolualdehyde			NA	NA	NA	ND	ND	ND
m,p-Tolualdehyde			NA	NA	NA	ND	ND	ND
Hexaldehyde			NA	NA	NA	ND	ND	ND
2,5-Dimethylbenzaldehyde			NA	NA	NA	ND	ND	ND

	ppb		ppb	ppb	ppb	ppb	ppb	ppb
Formaldehyde			NA	NA	NA	ND	ND	ND
Acetaldehyde			NA	NA	NA	1.477	1.861	2.278
Propionaldehyde			NA	NA	NA	ND	ND	ND
Crotonaldehyde			NA	NA	NA	ND	ND	ND
Butyraldehyde			NA	NA	NA	ND	ND	ND
Benzaldehyde			NA	NA	NA	ND	ND	ND
Isovaleraldehyde			NA	NA	NA	ND	ND	ND
Valeraldehyde			NA	NA	NA	ND	ND	ND
o-Tolualdehyde			NA	NA	NA	ND	ND	ND
m,p-Tolualdehyde			NA	NA	NA	ND	ND	ND
Hexaldehyde			NA	NA	NA	ND	ND	ND
2,5-Dimethylbenzaldehyde			NA	NA	NA	ND	ND	ND

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNPH Analysis by HPLC

Printed : 09/18/09
Instrument : LC#02 Date Acquired : 09/15/09
Detector : UV-VIS 360 Sample Amount : 3ul
Analyst : MD Client & PAI Job# : EH & E P0903144A

Sample Information	MDL	P0903144-004 back 1.0ml	P0903144-005 back 1.0ml	P0903144-006 back 1.0ml	P0903144-007 back 1.0ml	P0903144-001 front 1.0ml	P0903144-002 front 1.0ml	P0903144-003 front 1.0ml
Dilution	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Sample Volume (L)	NA	104.60	99.60	NA	NA	102.40	99.80	103.80
Final Vol.(ml)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample
Formaldehyde	100.00	ND	ND	ND	ND	7046.169	6999.558	10451.649
Acetaldehyde	100.00	515.738 BT	ND	ND	ND	3952.176	3876.333	3414.690
Propionaldehyde	100.00	ND	ND	ND	ND	659.623	669.361	574.436
Crotonaldehyde	100.00	ND	ND	ND	ND	ND	ND	ND
Butyraldehyde	100.00	ND	ND	ND	ND	582.143	571.302	480.914
Benzaldehyde	100.00	ND	ND	ND	ND	925.980	924.482	970.486
Isovaleraldehyde	100.00	ND	ND	ND	ND	273.556	268.763	252.076
Valeraldehyde	100.00	ND	ND	ND	ND	1848.426	1862.587	1634.801
o-Tolualdehyde	100.00	ND	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde	200.00	ND	ND	ND	ND	ND	ND	ND
Hexaldehyde	100.00	ND	ND	ND	ND	7374.567	7405.760	6482.855
2,5-Dimethylbenzaldehyde	100.00	ND	ND	ND	ND	ND	ND	ND

See atch

	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Formaldehyde		ND	ND	ND	ND	68.810	70.136	100.690
Acetaldehyde		4.931	ND	ND	ND	38.595	38.841	32.897
Propionaldehyde		ND	ND	ND	ND	6.442	6.707	5.534
Crotonaldehyde		ND	ND	ND	ND	ND	ND	ND
Butyraldehyde		ND	ND	ND	ND	5.685	5.724	4.633
Benzaldehyde		ND	ND	ND	ND	9.043	9.263	9.350
Isovaleraldehyde		ND	ND	ND	ND	2.671	2.693	2.428
Valeraldehyde		ND	ND	ND	ND	18.051	18.663	15.750
o-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
Hexaldehyde		ND	ND	ND	ND	72.017	74.206	62.455
2,5-Dimethylbenzaldehyde		ND	ND	ND	ND	ND	ND	ND

	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Formaldehyde		ND	ND	ND	ND	56.047	57.127	82.014
Acetaldehyde		2.738	ND	ND	ND	21.431	21.568	18.267
Propionaldehyde		ND	ND	ND	ND	2.713	2.825	2.331
Crotonaldehyde		ND	ND	ND	ND	ND	ND	ND
Butyraldehyde		ND	ND	ND	ND	1.928	1.942	1.572
Benzaldehyde		ND	ND	ND	ND	2.084	2.135	2.155
Isovaleraldehyde		ND	ND	ND	ND	0.759	0.765	0.690
Valeraldehyde		ND	ND	ND	ND	5.126	5.300	4.473
o-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
Hexaldehyde		ND	ND	ND	ND	17.587	18.122	15.252
2,5-Dimethylbenzaldehyde		ND	ND	ND	ND	ND	ND	ND

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNPH Analysis by HPLC

Printed : 09/18/09
Instrument : LC#02 — Date Acquired : 09/15/09
Detector : UV-VIS 360 — Sample Amount : 3ul
Analyst : MD — Client & PAI Job# : EH & E P0903144A

SAMPLE RESULT SUMMARY

Sample Information	MDL	1500ng/ml TO-11A S21-09090903	% Diff	P0903144-004 front 1.0ml	P0903144-005 front 1.0ml	P0903144-006 front 1.0ml	P0903144-007 front 1.0ml	MID CCV 1500ng/ml	% Diff
Dilution	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Sample Volume (L)	NA	NA		104.60	99.60	NA	NA	NA	
Final Vol.(ml)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
	ng/sample	ng/sample		ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	
Formaldehyde	100.00	1616.430	7.8%	11653.039	221.635	ND	ND	1545.257	3.0%
Acetaldehyde	100.00	1592.355	6.2%	4062.553	122.673	ND	ND	1548.432	3.2%
Propionaldehyde	100.00	1559.029	3.9%	644.107	ND	ND	ND	1511.525	0.8%
Crotonaldehyde	100.00	1581.090	5.4%	ND	ND	ND	ND	1547.243	3.1%
Butyraldehyde	100.00	1596.051	6.4%	560.072	ND	ND	ND	1555.598	3.7%
Benzaldehyde	100.00	1566.042	4.4%	890.367	ND	ND	ND	1515.824	1.1%
Isovaleraldehyde	100.00	1571.674	4.8%	317.388	ND	ND	ND	1515.192	1.0%
Valeraldehyde	100.00	1500.619	0.0%	1785.750	ND	ND	ND	1489.963	0.7%
o-Tolualdehyde	100.00	1547.066	3.1%	ND	ND	ND	ND	1508.271	0.6%
m,p-Tolualdehyde	200.00	3157.198	5.2%	ND	ND	ND	ND	3114.058	3.8%
Hexaldehyde	100.00	1442.715	3.8%	7310.551	ND	ND	ND	1484.812	1.0%
2,5-Dimethylbenzaldehyde	100.00	1623.779	8.3%	ND	ND	ND	ND	1561.340	4.1%

ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Formaldehyde	111.406	2.225	ND	ND
Acetaldehyde	38.839	1.232	ND	ND
Propionaldehyde	6.158	ND	ND	ND
Crotonaldehyde	ND	ND	ND	ND
Butyraldehyde	5.354	ND	ND	ND
Benzaldehyde	8.512	ND	ND	ND
Isovaleraldehyde	3.034	ND	ND	ND
Valeraldehyde	17.072	ND	ND	ND
o-Tolualdehyde	ND	ND	ND	ND
m,p-Tolualdehyde	ND	ND	ND	ND
Hexaldehyde	69.891	ND	ND	ND
2,5-Dimethylbenzaldehyde	ND	ND	ND	ND

ppb	ppb	ppb	ppb	ppb
Formaldehyde	90.742	1.813	ND	ND
Acetaldehyde	21.566	0.684	ND	ND
Propionaldehyde	2.593	ND	ND	ND
Crotonaldehyde	ND	ND	ND	ND
Butyraldehyde	1.816	ND	ND	ND
Benzaldehyde	1.962	ND	ND	ND
Isovaleraldehyde	0.862	ND	ND	ND
Valeraldehyde	4.848	ND	ND	ND
o-Tolualdehyde	ND	ND	ND	ND
m,p-Tolualdehyde	ND	ND	ND	ND
Hexaldehyde	17.068	ND	ND	ND
2,5-Dimethylbenzaldehyde	ND	ND	ND	ND

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNPH Analysis by HPLC

dilutions Formaldehyde only

Printed : 09/18/09

Instrument : LC#02
Detector : UV-VIS 360
Analyst : MD

Date Acquired : 09/16/09
Sample Amount : 3ul
Client & PAI Job# : EH & E P0903144B

mn 9/18/09

SAMPLE RESULT SUMMARY

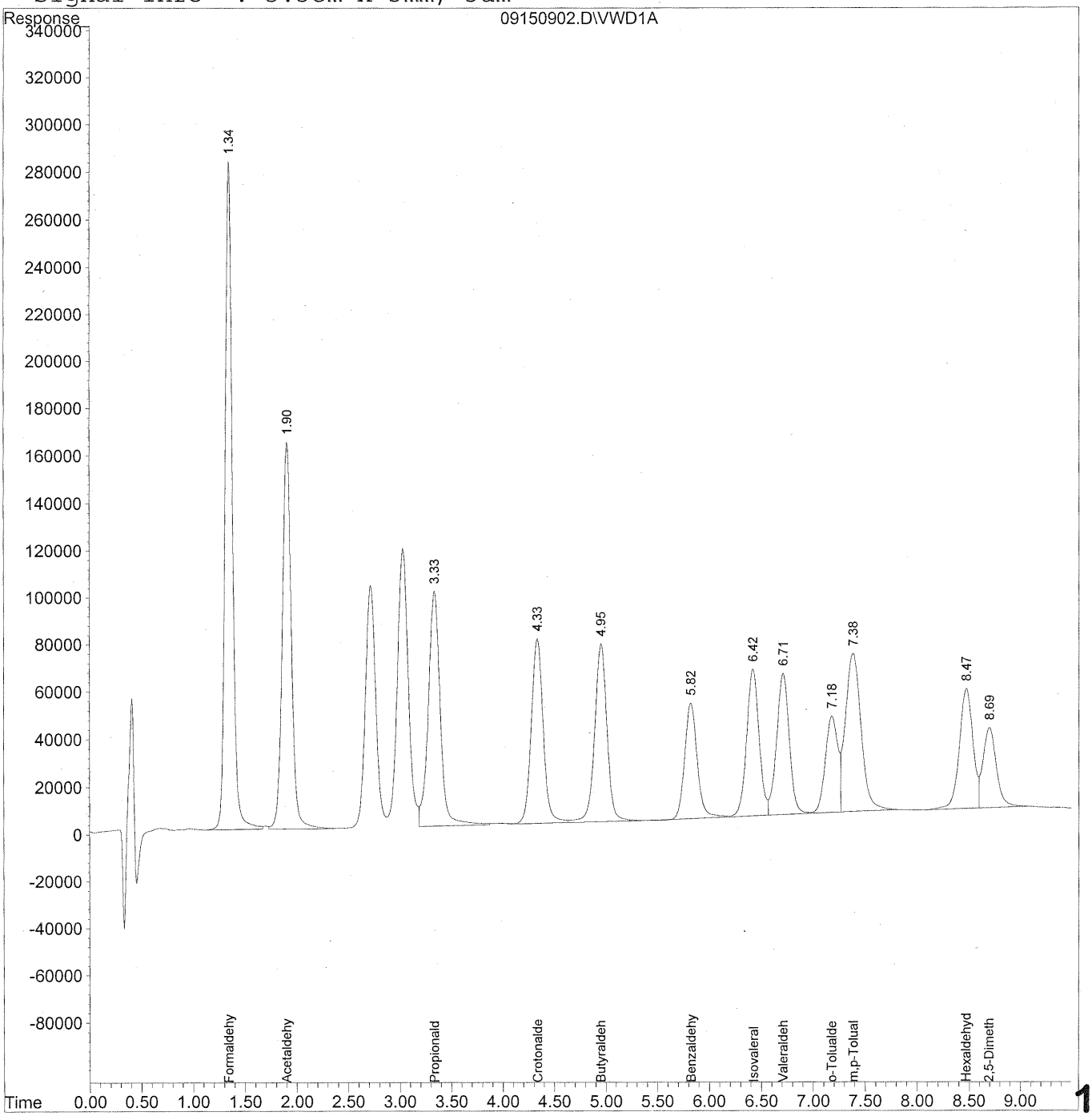
Sample Information	MDL	1500ng/ml TO 11A S21-09090903	% Diff	ACN blank Lot CY331	P0903144-003 front 10x dil	P0903144-004 front 10x dil	1500ng/ml TO-11A S21-09090903	% Diff
Dilution	1.0			1.0	10.0	10.0	1.0	
Sample Volume (L)	NA			NA	103.80	104.60	100.00	
Final Vol.(ml)	1.0			1.0	1.0	1.0	1.0	
	ng/sample	ng/sample		ng/sample	ng/sample	ng/sample	ng/sample	
Formaldehyde	100.00	1594.4	6.3%	ND	10778.580	11685.970	1595.075	6.3%
Acetaldehyde	100.00	1583.3	5.6%	ND	3583.000	4173.020	1580.998	5.4%
Propionaldehyde	100.00	1546.4	3.1%	ND	ND	ND	1542.274	2.8%
Crotonaldehyde	100.00	1572.5	4.8%	ND	ND	ND	1578.533	5.2%
Butyraldehyde	100.00	1597.3	6.5%	ND	ND	ND	1622.098	8.1%
Benzaldehyde	100.00	1527.4	1.8%	ND	ND	ND	1555.263	3.7%
Isovaleraldehyde	100.00	1571.7	4.8%	ND	ND	ND	1560.216	4.0%
Valeraldehyde	100.00	1490.8	0.6%	ND	1402.480	1622.410	1512.692	0.8%
o-Tolualdehyde	100.00	1521.0	1.4%	ND	ND	ND	1556.619	3.8%
m,p-Tolualdehyde	200.00	3112.3	3.7%	ND	ND	ND	3188.679	6.3%
Hexaldehyde	100.00	1619.8	8.0%	ND	6962.590	7706.260	1617.077	7.8%
2,5-Dimethylbenzaldehyde	100.00	1686.2	12.4%	ND	ND	ND	1695.716	13.0%
	ug/m3			ug/m3	ug/m3	ug/m3		
Formaldehyde				NA	103.840	111.721		
Acetaldehyde				NA	34.518	39.895		
Propionaldehyde				NA	ND	ND		
Crotonaldehyde				NA	ND	ND		
Butyraldehyde				NA	ND	ND		
Benzaldehyde				NA	ND	ND		
Isovaleraldehyde				NA	ND	ND		
Valeraldehyde				NA	13.511	15.511		
o-Tolualdehyde				NA	ND	ND		
m,p-Tolualdehyde				NA	ND	ND		
Hexaldehyde				NA	67.077	73.674		
2,5-Dimethylbenzaldehyde				NA	ND	ND		
	ppb			ppb	ppb	ppb		
Formaldehyde				NA	84.580	90.998		
Acetaldehyde				NA	19.167	22.153		
Propionaldehyde				NA	ND	ND		
Crotonaldehyde				NA	ND	ND		
Butyraldehyde				NA	ND	ND		
Benzaldehyde				NA	ND	ND		
Isovaleraldehyde				NA	ND	ND		
Valeraldehyde				NA	3.837	4.405		
o-Tolualdehyde				NA	ND	ND		
m,p-Tolualdehyde				NA	ND	ND		
Hexaldehyde				NA	16.381	17.992		
2,5-Dimethylbenzaldehyde				NA	ND	ND		

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150902.D Vial: 10
Acq On : 15-Sep-2009, 08:33 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 17 16:13 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150902.D Vial: 10
Acq On : 15-Sep-2009, 08:33 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 17 16:13 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

HC 9/18/09 MR 9/18/09

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

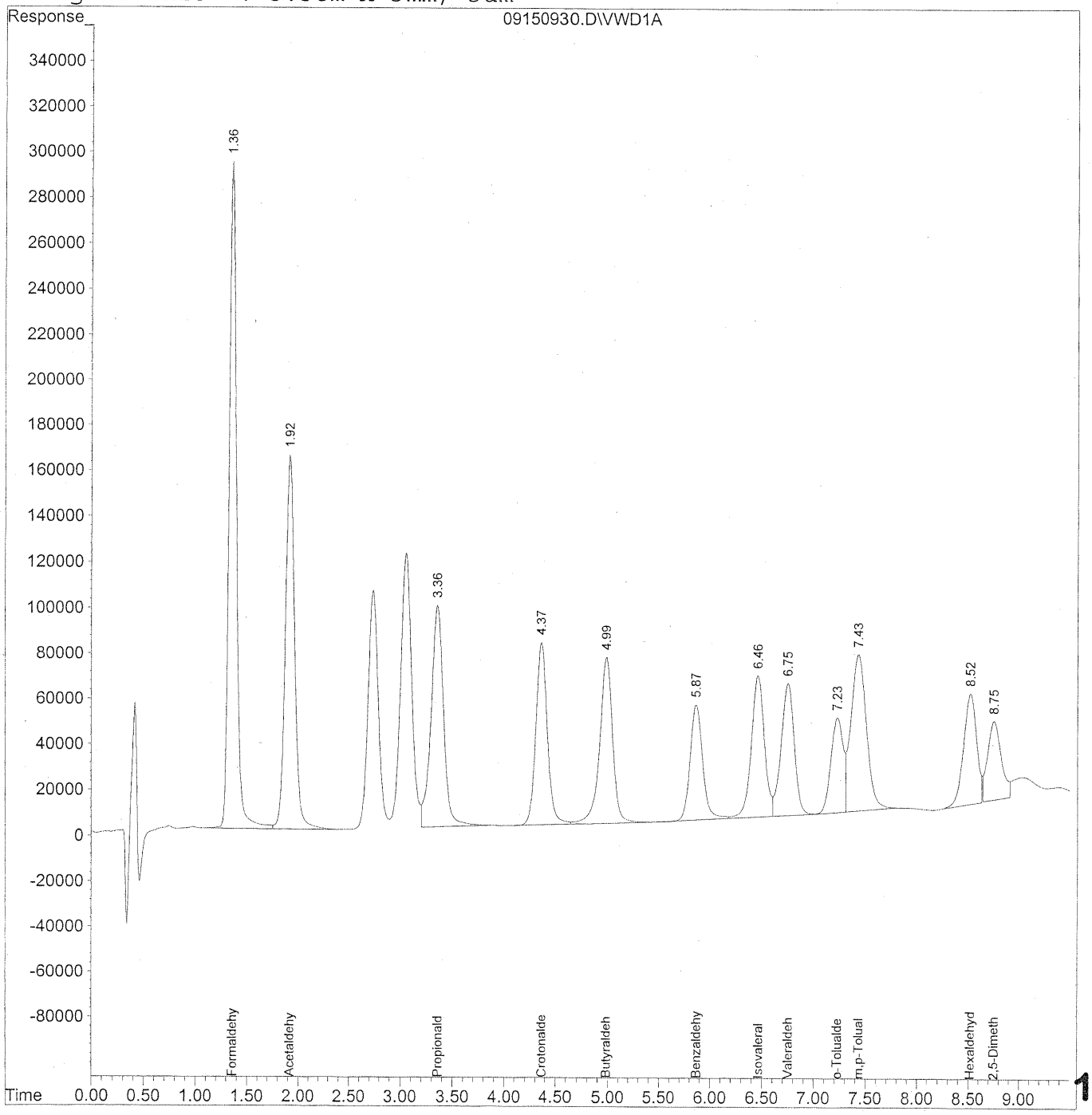
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.35	13734355	1537.067	ng/ml
2)	Acetaldehyde	1.91	9951751	1530.851	ng/ml
3)	Propionaldehyde	3.34	7967547	1532.862	ng/ml
4)	Crotonaldehyde	4.34	6260489	1542.155	ng/ml
5)	Butyraldehyde	4.96	6272804	1547.783	ng/ml
6)	Benzaldehyde	5.83	4047830	1483.603	ng/ml
7)	Isovaleraldehyde	6.42	5165018	1500.679	ng/ml
8)	Valeraldehyde	6.71	5029675	1479.473	ng/ml
9)	o-Tolualdehyde	7.18	3308098	1507.407	ng/ml
10)	m,p-Tolualdehyde	7.39	7047562	3068.264	ng/ml
11)	Hexaldehyde	8.47	4503199	1520.979	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.70	3098061	1552.530	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150930.D Vial: 10
Acq On : 15-Sep-2009, 14:09 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:08 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150930.D Vial: 10
Acq On : 15-Sep-2009, 14:09 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 18 11:08 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

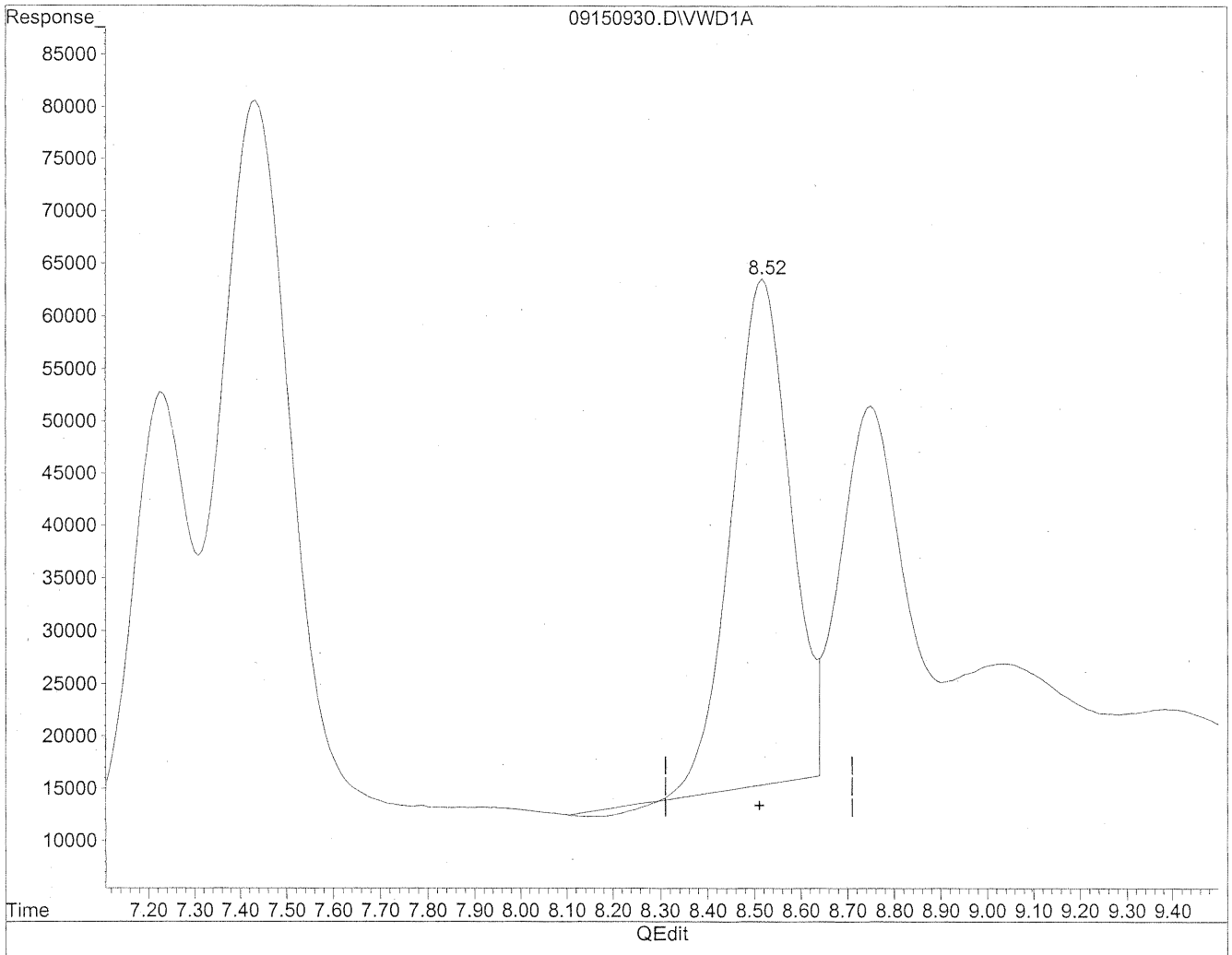
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.36	14443502	1616.430	ng/ml
2)	Acetaldehyde	1.92	10351578	1592.355	ng/ml
3)	Propionaldehyde	3.36	8103559	1559.029	ng/ml
4)	Crotonaldehyde	4.37	6418548	1581.090	ng/ml
5)	Butyraldehyde	4.99	6468424	1596.051	ng/ml
6)	Benzaldehyde	5.87	4272755	1566.042	ng/ml
7)	Isovaleraldehyde	6.47	5409368	1571.674	ng/ml
8)	Valeraldehyde	6.76	5101562	1500.619	ng/ml
9)	o-Tolualdehyde	7.23	3395131	1547.066	ng/ml
10)	m,p-Tolualdehyde	7.43	7251835	3157.198	ng/ml
11)	Hexaldehyde	8.52	4271482	1442.715	ng/mlm
12)	2,5-Dimethylbenzaldehyde	8.75	3240237	1623.779	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150930.D Vial: 10
Acq On : 15-Sep-2009, 14:09 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:22 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.52min 1412.963ng/ml

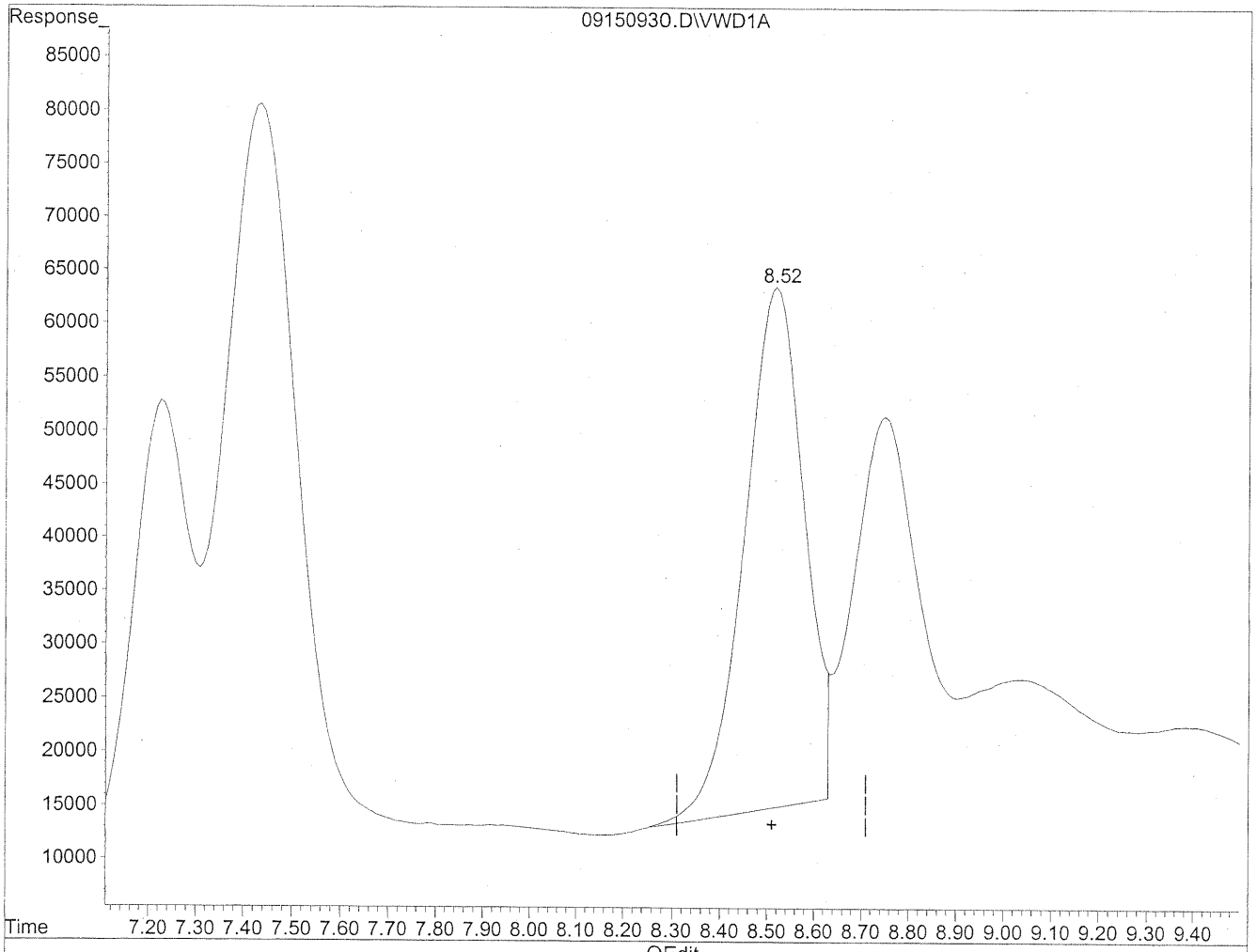
response 4183394

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150930.D Vial: 10
Acq On : 15-Sep-2009, 14:09 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 15 14:22 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 17 16:12:59 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.52min 1442.715ng/ml m

response 4271482

9/18/09

9/18/09

(+) = Expected Retention Time

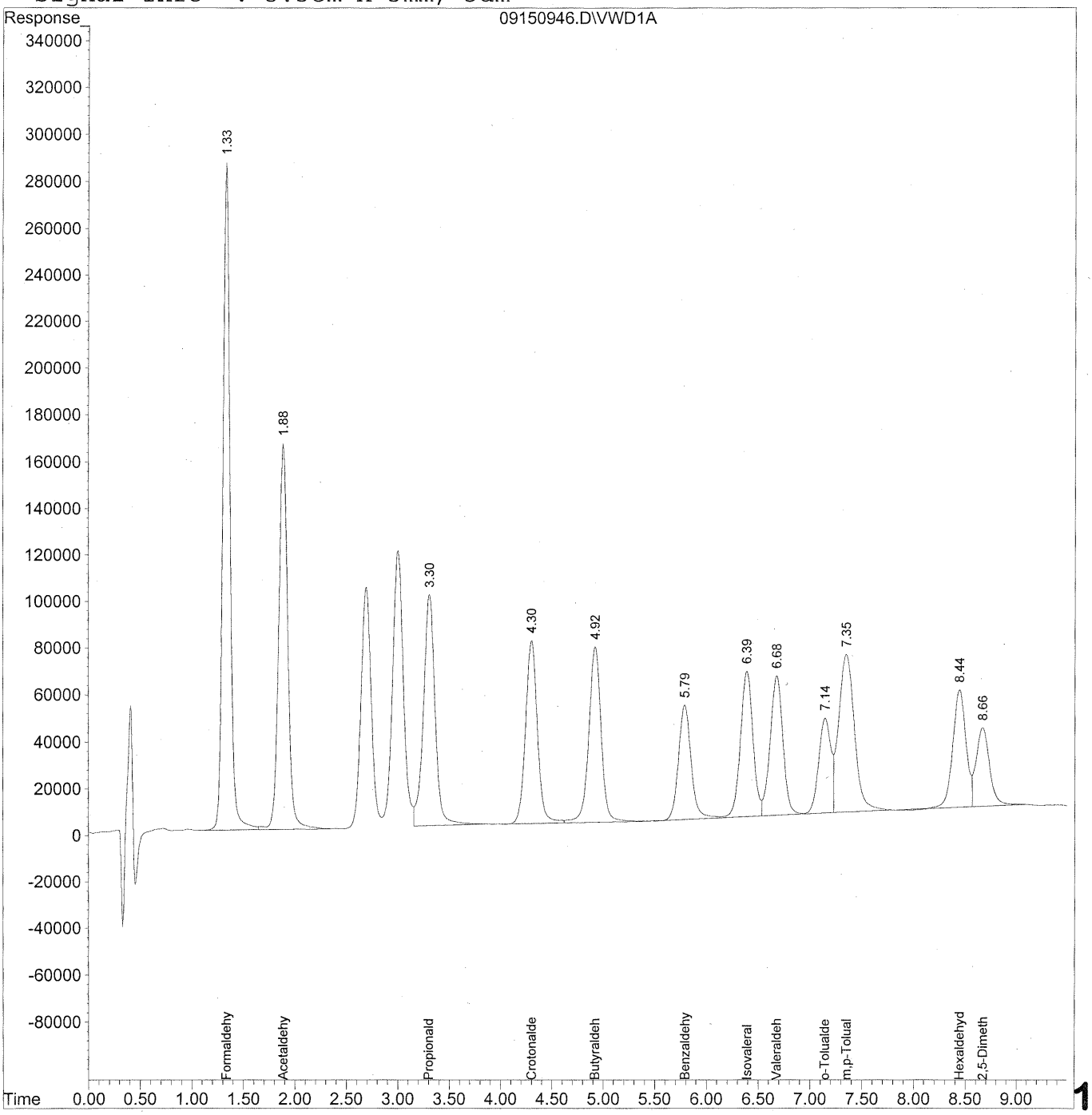
09150930.D TO110909.M Fri Sep 18 11:08:44 2009

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150946.D Vial: 10
Acq On : 15-Sep-2009, 17:20 Operator: MD
Sample : MID CCV 1500ng/ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:08 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\15\09150946.D Vial: 10
Acq On : 15-Sep-2009, 17:20 Operator: MD
Sample : MID CCV 1500ng/ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 8:08 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

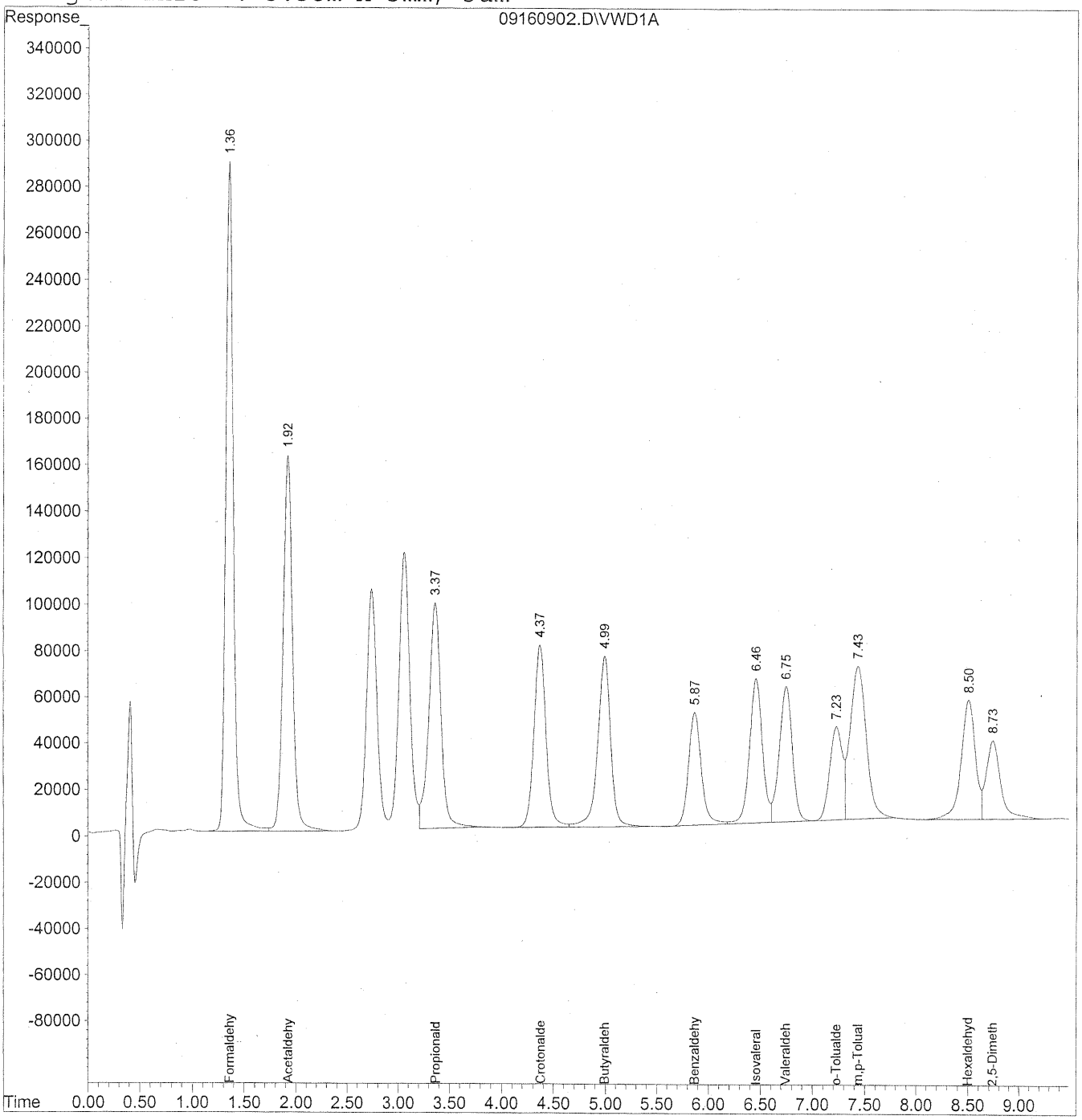
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.34	13807540	1545.257	ng/ml
2)	Acetaldehyde	1.89	10066044	1548.432	ng/ml
3)	Propionaldehyde	3.31	7856639	1511.525	ng/ml
4)	Crotonaldehyde	4.30	6281140	1547.243	ng/ml
5)	Butyraldehyde	4.92	6304476	1555.598	ng/ml
6)	Benzaldehyde	5.79	4135740	1515.824	ng/ml
7)	Isovaleraldehyde	6.39	5214971	1515.192	ng/ml
8)	Valeraldehyde	6.68	5065338	1489.963	ng/ml
9)	o-Tolualdehyde	7.15	3309994	1508.271	ng/ml
10)	m,p-Tolualdehyde	7.35	7152748	3114.058	ng/ml
11)	Hexaldehyde	8.44	4396119	1484.812	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.67	3115641	1561.340	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160902.D Vial: 10
Acq On : 16-Sep-2009, 11:06 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:26 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160902.D Vial: 10
Acq On : 16-Sep-2009, 11:06 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:26 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

MD 9/18/08 Formal only

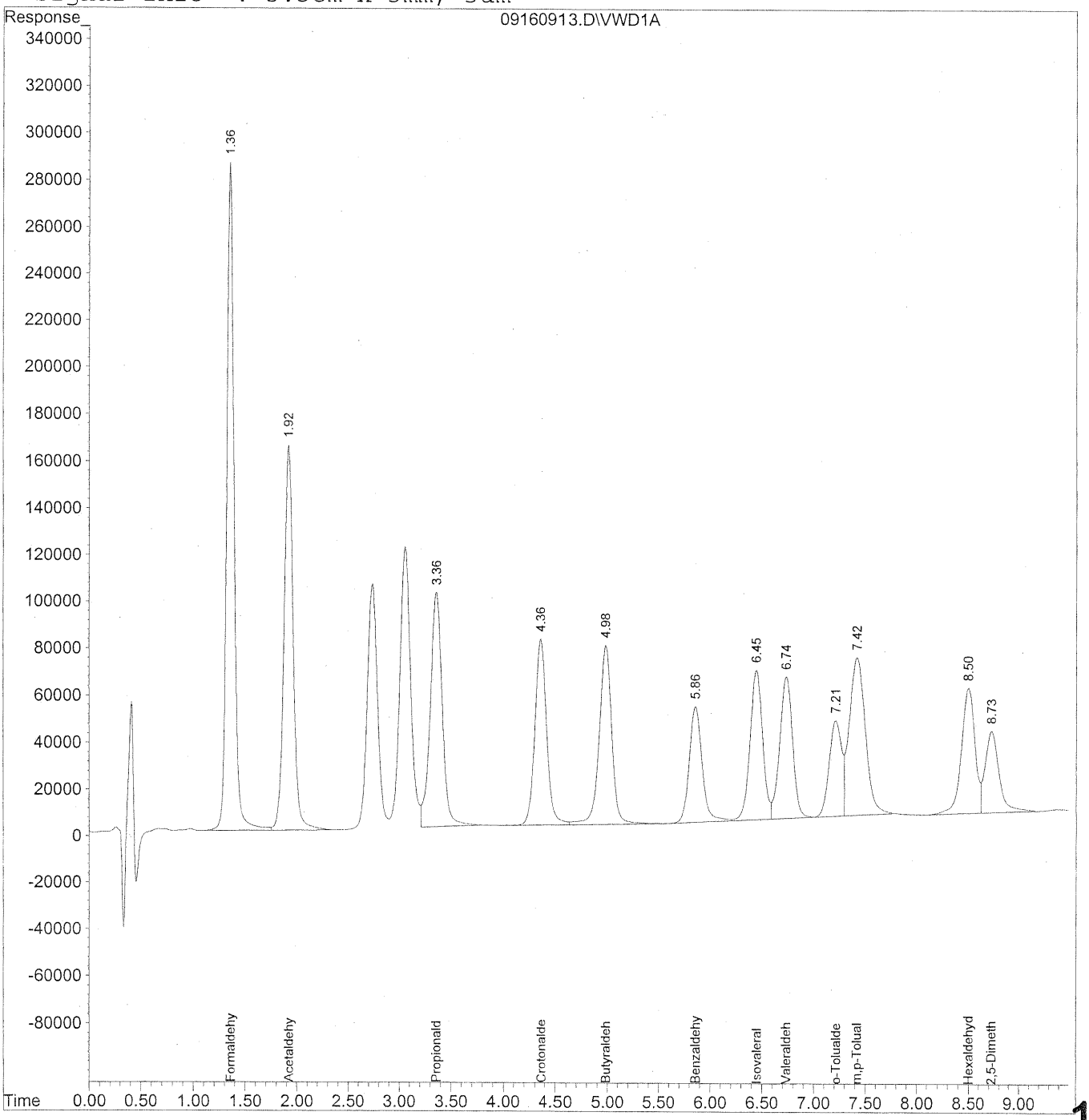
MC 9/18/08

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.36	14246431	1594.375	ng/ml
2)	Acetaldehyde	1.93	10292886	1583.327	ng/ml
3)	Propionaldehyde	3.37	8038116	1546.439	ng/ml
4)	Crotonaldehyde	4.38	6383622	1572.487	ng/ml
5)	Butyraldehyde	4.99	6473640	1597.338	ng/ml
6)	Benzaldehyde	5.87	4167382	1527.421	ng/ml
7)	Isovaleraldehyde	6.46	5409590	1571.738	ng/ml
8)	Valeraldehyde	6.75	5068157	1490.792	ng/ml
9)	o-Tolualdehyde	7.23	3337833	1520.956	ng/ml
10)	m,p-Tolualdehyde	7.44	7148647	3112.273	ng/ml
11)	Hexaldehyde	8.51	4795792	1619.804	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.74	3364703	1686.152	ng/ml

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160913.D Vial: 10
Acq On : 16-Sep-2009, 13:14 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 14:05 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Quantitation Report (QT Reviewed)

Data File : J:\LC02\DATA\TO11A\2009_09\16\09160913.D Vial: 10
Acq On : 16-Sep-2009, 13:14 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 14:05 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Formaldehyde	1.36	14252679	1595.075	ng/ml
2)	Acetaldehyde	1.93	10277749	1580.998	ng/ml
3)	Propionaldehyde	3.37	8016470	1542.274	ng/ml
4)	Crotonaldehyde	4.37	6408166	1578.533	ng/ml
5)	Butyraldehyde	4.99	6573986	1622.098	ng/ml
6)	Benzaldehyde	5.86	4243343	1555.263	ng/ml
7)	Isovaleraldehyde	6.45	5369934	1560.216	ng/ml
8)	Valeraldehyde	6.74	5142606	1512.692	ng/ml
9)	o-Tolualdehyde	7.22	3416096	1556.619	ng/ml
10)	m,p-Tolualdehyde	7.42	7324144	3188.679	ng/ml
11)	Hexaldehyde	8.50	4787720	1617.077	ng/ml
12)	2,5-Dimethylbenzaldehyde	8.73	3383788	1695.716	ng/ml

(f)=RT Delta > 1/2 Window (m)=manual int.
09160913.D TO110909.M Fri Sep 18 11:45:22 2009 Page 1

RUN LOGS

Injection Log

Directory: j:\lc02\data\to11a\2009_09\09

.ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
		09090901.d	1.			
		09090902.d	1.			
	102	09090903.d	1.	TO11 STD TEST		09-Sep-09, 12:4
	102	09090904.d	1.	TO11 STD TEST		09-Sep-09, 12:5
	10	09090905.d	1.	TO11 STD TEST		09-Sep-09, 26:1
	10	09090906.d	1.	TO11 STD TEST		09-Sep-09, 26:3
	10	09090907.d	1.	ACN BLANK Lot CY331		09-Sep-09, 27:0
	9	09090908.d	1.	50ng/ml TO-11A S21-09080905		09-Sep-09, 27:2
	9	09090909.d	1.	50ng/ml TO-11A S21-09080905		09-Sep-09, 27:3
0	9	09090910.d	1.	50ng/ml TO-11A S21-09080905		09-Sep-09, 27:4
1	8	09090911.d	1.	100ng/ml TO-11A S21-09080904		09-Sep-09, 27:5
2	8	09090912.d	1.	100ng/ml TO-11A S21-09080904		09-Sep-09, 28:0
3	8	09090913.d	1.	100ng/ml TO-11A S21-09080904		09-Sep-09, 28:1
4	7	09090914.d	1.	500ng/ml TO-11A S21-09080903		09-Sep-09, 28:2
5	7	09090915.d	1.	500ng/ml TO-11A S21-09080903		09-Sep-09, 28:4
6	7	09090916.d	1.	500ng/ml TO-11A S21-09080903		09-Sep-09, 28:5
7	6	09090917.d	1.	1500ng/ml TO-11A S21-09090903		09-Sep-09, 29:0
8	6	09090918.d	1.	1500ng/ml TO-11A S21-09090903		09-Sep-09, 29:1
9	6	09090919.d	1.	1500ng/ml TO-11A S21-09090903		09-Sep-09, 29:2
0	5	09090920.d	1.	5000ng/ml TO-11A S21-09080902		09-Sep-09, 29:3
1	5	09090921.d	1.	5000ng/ml TO-11A S21-09080902		09-Sep-09, 29:4
2	5	09090922.d	1.	5000ng/ml TO-11A S21-09080902		09-Sep-09, 30:0
3	4	09090923.d	1.	10000ng/ml TO-11A S21-09080901		09-Sep-09, 30:1
4	4	09090924.d	1.	10000ng/ml TO-11A S21-09080902		09-Sep-09, 30:2
5	4	09090925.d	1.	10000ng/ml TO-11A S21-09080902		09-Sep-09, 30:3
6	3	09090926.d	1.	~1500ng/ml TO-11A ICV S21-07270907		09-Sep-09, 30:4
7	3	09090927.d	1.	~1500ng/ml TO-11A ICV S21-07270907	> injected ICV 3x by mistake (MK) 9/10/09	09-Sep-09, 30:5
8	3	09090928.d	1.	~1500ng/ml TO-11A ICV S21-07270907		09-Sep-09, 31:0

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Injection Log

Directory: j:\lc02\data\to11a\2009_09\15

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	10	09150901.d	1.	prime		15-Sep-09, 20:2
2	10	09150902.d	1.	1500ng/ml TO-11A S21-09090903		15-Sep-09, 20:3
3	9	09150903.d	1.	ACN blank Lot CY331		15-Sep-09, 20:4
4	101	09150904.d	1.	MB-3 front 1.0ml lot 5855/5994		15-Sep-09, 20:5
5	102	09150905.d	1.	MB-3 back 1.0ml lot 5855/5994		15-Sep-09, 21:0
6	103	09150906.d	1.	P0903143-001 back 1.0ml		15-Sep-09, 21:2
7	104	09150907.d	1.	P0903143-002 back 1.0ml		15-Sep-09, 21:3
8	105	09150908.d	1.	P0903143-003 back 1.0ml		15-Sep-09, 21:4
9	106	09150909.d	1.	P0903143-004 back 1.0ml		15-Sep-09, 21:5
10	107	09150910.d	1.	P0903143-005 back 1.0ml		15-Sep-09, 22:0
11	108	09150911.d	1.	P0903143-001 front 1.0ml		15-Sep-09, 22:2
12	109	09150912.d	1.	P0903143-002 front 1.0ml		15-Sep-09, 22:3
13	110	09150913.d	1.	P0903143-003 front 1.0ml		15-Sep-09, 22:4
14	111	09150914.d	1.	P0903143-004 front 1.0ml		15-Sep-09, 22:5
15	112	09150915.d	1.	P0903143-005 front 1.0ml		15-Sep-09, 23:0
16	10	09150916.d	1.	MID CCV 1500ng/ml		15-Sep-09, 23:2
17	9	09150917.d	1.	ACN blank lot CY331		15-Sep-09, 23:3
18	113	09150918.d	1.	MB-4 front 1.0ml lot 5855/5994		15-Sep-09, 23:4
19	114	09150919.d	1.	MB-4 back 1.0ml lot 5855/5994		15-Sep-09, 23:5
20	115	09150920.d	1.	P0903144-001 back 1.0ml		15-Sep-09, 12:0
21	116	09150921.d	1.	P0903144-002 back 1.0ml		15-Sep-09, 12:2
22	117	09150922.d	1.	P0903144-003 back 1.0ml		15-Sep-09, 12:3
23	118	09150923.d	1.	P0903144-004 back 1.0ml		15-Sep-09, 12:4
24	119	09150924.d	1.	P0903144-005 back 1.0ml		15-Sep-09, 12:5
25	120	09150925.d	1.	P0903144-006 back 1.0ml		15-Sep-09, 25:0
26	121	09150926.d	1.	P0903144-007 back 1.0ml		15-Sep-09, 25:2
27	122	09150927.d	1.	P0903144-001 front 1.0ml		15-Sep-09, 25:3
28	123	09150928.d	1.	P0903144-002 front 1.0ml		15-Sep-09, 25:4
29	124	09150929.d	1.	P0903144-003 front 1.0ml * 5e ail		15-Sep-09, 25:5
30	10	09150930.d	1.	1500ng/ml TO-11A S21-09090903		15-Sep-09, 26:0
31	9	09150931.d	1.	ACN blank lot CY331		15-Sep-09, 26:2
32	125	09150932.d	1.	P0903144-004 front 1.0ml * pe ail		15-Sep-09, 26:3
33	126	09150933.d	1.	P0903144-005 front 1.0ml		15-Sep-09, 26:4
34	127	09150934.d	1.	P0903144-006 front 1.0ml		15-Sep-09, 26:5
35	128	09150935.d	1.	P0903144-007 front 1.0ml		15-Sep-09, 27:0
36	129	09150936.d	1.	QC LOT 6009/6136	DNPH cntrl box # 44 rec'd 8/27/09	15-Sep-09, 27:2
37	130	09150937.d	1.	MB-1 front 1.0ml lot 5855/5994	9/14	15-Sep-09, 27:3
38	131	09150938.d	1.	MB-1 back 1.0ml lot 5855/5994	9/14	15-Sep-09, 27:4
39	132	09150939.d	1.	P0903198-002 back 1.0ml		15-Sep-09, 27:5
40	133	09150940.d	1.	P0903198-004 back 1.0ml		15-Sep-09, 28:0
41	134	09150941.d	1.	P0903198-006 back 1.0ml		15-Sep-09, 28:2
42	135	09150942.d	1.	P0903198-002 front 1.0ml		15-Sep-09, 28:3
43	136	09150943.d	1.	P0903198-004 front 1.0ml		15-Sep-09, 28:4
44	137	09150944.d	1.	P0903198-006 front 1.0ml		15-Sep-09, 28:5
45	9	09150945.d	1.	acn blank		15-Sep-09, 29:0
46	10	09150946.d	1.	MID CCV 1500ng/ml		15-Sep-09, 29:2
47	140	09150947.d	1.	P0903195-001 back 1.0ml		15-Sep-09, 29:3
48	141	09150948.d	1.	P0903195-002 back 1.0ml		15-Sep-09, 29:4
49	142	09150949.d	1.	P0903195-003 back 1.0ml		15-Sep-09, 29:5
50	143	09150950.d	1.	P0903195-004 back 1.0ml		15-Sep-09, 30:0
51	144	09150951.d	1.	P0903195-005 back 1.0ml		15-Sep-09, 30:2
52	145	09150952.d	1.	P0903195-006 back 1.0ml		15-Sep-09, 30:3
53	146	09150953.d	1.	P0903195-007 back 1.0ml		15-Sep-09, 30:4
54	147	09150954.d	1.	P0903195-008 back 1.0ml		15-Sep-09, 30:5
55	148	09150955.d	1.	P0903195-009 back 1.0ml		15-Sep-09, 31:0
56	149	09150956.d	1.	P0903195-010 back 1.0ml		15-Sep-09, 31:2

Injection Log

Directory: j:\lc02\data\to11a\2009_09\16

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	10	09160901.d	1.	prime		16-Sep-09, 22:5
2	10	09160902.d	1.	1500ng/ml TO-11A S21-09090903		16-Sep-09, 23:0
3	9	09160903.d	1.	ACN blank Lot CY331		16-Sep-09, 23:1
4	8	09160904.d	1.	P0903144-003 front 10x dil		16-Sep-09, 23:3
5	7	09160905.d	1.	P0903144-004 front 10x dil		16-Sep-09, 23:4
6	6	09160906.d	1.	P0903195-003 front 10x dil		16-Sep-09, 23:5
7	5	09160907.d	1.	P0903195-013 front 10x dil		16-Sep-09, 12:0
8	4	09160908.d	1.	P0903195-014 front 10x dil		16-Sep-09, 12:1
9	3	09160909.d	1.	P0903195-015 front 10x dil		16-Sep-09, 12:2
10	2	09160910.d	1.	P0903195-016 front 10x dil		16-Sep-09, 12:3
11	11	09160911.d	1.	P0903195-005 front Rerun		16-Sep-09, 12:5
12	12	09160912.d	1.	P0903195-024 front Rerun		16-Sep-09, 25:0
13	10	09160913.d	1.	1500ng/ml TO-11A S21-09090903		16-Sep-09, 25:1
14	9	09160914.d	1.	ACN blank lot CY331		16-Sep-09, 25:2
15	101	09160915.d	1.	MB-1 front 1.0ml lot 5855/5994	9/15	16-Sep-09, 25:3
16	102	09160916.d	1.	MB-1 back 1.0ml lot 5855/5994	9/15	16-Sep-09, 25:5
17	103	09160917.d	1.	P0903146-001 back 1.0ml		16-Sep-09, 26:0
18	104	09160918.d	1.	P0903146-002 back 1.0ml		16-Sep-09, 26:1
19	105	09160919.d	1.	P0903146-003 back 1.0ml		16-Sep-09, 26:2
20	106	09160920.d	1.	P0903146-004 back 1.0ml		16-Sep-09, 26:3
21	107	09160921.d	1.	P0903146-005 back 1.0ml		16-Sep-09, 26:5
22	108	09160922.d	1.	P0903146-006 back 1.0ml		16-Sep-09, 27:0
23	109	09160923.d	1.	P0903146-001 front 1.0ml		16-Sep-09, 27:1
24	110	09160924.d	1.	P0903146-002 front 1.0ml		16-Sep-09, 27:2
25	9	09160925.d	1.	acn blank		16-Sep-09, 27:3
26	10	09160926.d	1.	MID CCV 1500ng/ml		16-Sep-09, 27:4
27	111	09160927.d	1.	P0903146-003 front 1.0ml		16-Sep-09, 28:0
28	112	09160928.d	1.	P0903146-004 front 1.0ml		16-Sep-09, 28:1
29	113	09160929.d	1.	P0903146-005 front 1.0ml		16-Sep-09, 28:2
30	114	09160930.d	1.	P0903146-006 front 1.0ml		16-Sep-09, 28:3
31	115	09160931.d	1.	P0903147-001 back 1.0ml		16-Sep-09, 28:5
32	116	09160932.d	1.	P0903147-002 back 1.0ml		16-Sep-09, 29:0
33	117	09160933.d	1.	P0903147-003 back 1.0ml		16-Sep-09, 29:1
34	118	09160934.d	1.	P0903147-004 back 1.0ml		16-Sep-09, 29:2
35	119	09160935.d	1.	P0903147-005 back 1.0ml		16-Sep-09, 29:3
36	120	09160936.d	1.	P0903147-006 back 1.0ml		16-Sep-09, 29:5
37	10	09160937.d	1.	1500ng/ml TO-11A S21-09090903		16-Sep-09, 30:0
38	9	09160938.d	1.	ACN blank lot CY331		16-Sep-09, 30:1
39	121	09160939.d	1.	MB-2 front 1.0ml lot 5855/5994	9/15	16-Sep-09, 30:2
40	122	09160940.d	1.	MB-2 back 1.0ml lot 5855/5994	9/15	16-Sep-09, 30:3
41	123	09160941.d	1.	P0903147-001 front 1.0ml		16-Sep-09, 30:4
42	124	09160942.d	1.	P0903147-002 front 1.0ml		16-Sep-09, 31:0
43	125	09160943.d	1.	P0903147-003 front 1.0ml		16-Sep-09, 31:1
44	126	09160944.d	1.	P0903147-004 front 1.0ml		16-Sep-09, 31:2
45	127	09160945.d	1.	P0903147-005 front 1.0ml		16-Sep-09, 31:3
46	128	09160946.d	1.	P0903147-006 front 1.0ml		16-Sep-09, 31:4
47	129	09160947.d	1.	P0903140-003 back 1.0ml		16-Sep-09, 32:0
48	130	09160948.d	1.	P0903140-004 back 1.0ml		16-Sep-09, 32:1
49	131	09160949.d	1.	P0903140-005 back 1.0ml		16-Sep-09, 32:2
50	10	09160950.d	1.	MID CCV 1500ng/ml		16-Sep-09, 32:3
51	132	09160951.d	1.	P0903176-003 back 1.0ml		16-Sep-09, 32:4
52	133	09160952.d	1.	P0903176-004 back 1.0ml		16-Sep-09, 33:0
53	134	09160953.d	1.	P0903176-005 back 1.0ml		16-Sep-09, 33:1
54	135	09160954.d	1.	P0903140-003 front 1.0ml		16-Sep-09, 33:2
55	136	09160955.d	1.	P0903140-004 front 1.0ml		16-Sep-09, 33:3
56	137	09160956.d	1.	P0903140-005 front 1.0ml		16-Sep-09, 33:4
57	138	09160957.d	1.	P0903176-003 front 1.0ml		16-Sep-09, 34:0