Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

CALSCIENCE

WORK ORDER NUMBER: 13-11-0600

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: DTSC - Wildomar Autumnwood Development / NB10160TSP

Attention: Joseph Bahde
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 02/07/2014 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Accredited in accordance with nelac

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 13-11-0600

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Work Order Narrative

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 11/07/13. They were assigned to Work Order 13-11-0600.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	AMEC Environment & Infrastructure 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	13-11-0600
		Project Name:	DTSC - Wildomar Autumnwood Development / NB10160TSP
		PO Number:	C013101741
		Date/Time Received:	11/07/13 18:29
		Number of Containers:	18
Attn:	Joseph Bahde		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCTB-11072013	13-11-0600-1	11/07/13 08:00	2	Aqueous
13-GW-27-32	13-11-0600-2	11/07/13 09:55	4	Aqueous
130-GW-27-32	13-11-0600-3	11/07/13 09:58	1	Aqueous
11-GW-31-36	13-11-0600-4	11/07/13 13:25	4	Aqueous
110-GW-31-36	13-11-0600-5	11/07/13 13:28	3	Aqueous
1-GW-19-24	13-11-0600-6	11/07/13 15:46	4	Aqueous

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Analytical Report

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 1 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-11072013	**13-11-0600-1-A**	**11/07/13 08:00**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 00:40**	**131108L03**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Environment & Infrastructure	Date Received:	11/07/13
121 Innovation Drive, Suite 200	Work Order:	13-11-0600
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP		Page 2 of 12

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	85	80-120	
Dibromofluoromethane	95	80-126	
1,2-Dichloroethane-d4	91	80-134	
Toluene-d8	95	80-120	

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AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 3 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
13-GW-27-32	**13-11-0600-2-A**	**11/07/13 09:55**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 06:38**	**131108L03**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Environment & Infrastructure	Date Received:	11/07/13
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Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP		Page 4 of 12

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	80-120	
Dibromofluoromethane	106	80-126	
1,2-Dichloroethane-d4	100	80-134	
Toluene-d8	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 5 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
11-GW-31-36	**13-11-0600-4-A**	**11/07/13 13:25**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 07:08**	**131108L03**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Environment & Infrastructure	Date Received:	11/07/13
121 Innovation Drive, Suite 200	Work Order:	13-11-0600
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP		Page 6 of 12

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	81	80-120	
Dibromofluoromethane	106	80-126	
1,2-Dichloroethane-d4	100	80-134	
Toluene-d8	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 7 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
110-GW-31-36	**13-11-0600-5-A**	**11/07/13 13:28**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 07:38**	**131108L03**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Environment & Infrastructure	Date Received:	11/07/13
121 Innovation Drive, Suite 200	Work Order:	13-11-0600
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP		Page 8 of 12

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	82	80-120	
Dibromofluoromethane	108	80-126	
1,2-Dichloroethane-d4	100	80-134	
Toluene-d8	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 9 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
1-GW-19-24	**13-11-0600-6-A**	**11/07/13 15:46**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 08:08**	**131108L03**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 10 of 12

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	80-120	
Dibromofluoromethane	106	80-126	
1,2-Dichloroethane-d4	100	80-134	
Toluene-d8	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 11 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-12388**	**N/A**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 00:10**	**131108L03**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 12 of 12

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	84	80-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	94	80-134	
Toluene-d8	94	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-11-0459-4	**Sample**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 01:10**	**131108S03**
13-11-0459-4	**Matrix Spike**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 01:40**	**131108S03**
13-11-0459-4	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/09/13 02:09**	**131108S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	46.58	93	46.42	93	78-120	0	0-20	
Carbon Tetrachloride	ND	50.00	50.51	101	50.42	101	67-139	0	0-20	
Chlorobenzene	ND	50.00	46.15	92	47.03	94	80-120	2	0-20	
1,2-Dibromoethane	ND	50.00	50.74	101	49.74	99	80-123	2	0-20	
1,2-Dichlorobenzene	ND	50.00	47.47	95	47.91	96	76-120	1	0-20	
1,2-Dichloroethane	ND	50.00	43.12	86	43.25	86	76-130	0	0-20	
1,1-Dichloroethene	29.04	50.00	62.76	67	63.68	69	70-130	1	0-27	3
Ethylbenzene	ND	50.00	48.04	96	49.36	99	73-127	3	0-20	
Toluene	ND	50.00	47.98	96	47.83	96	72-126	0	0-20	
Trichloroethene	19.06	50.00	62.74	87	62.52	87	74-122	0	0-20	
Vinyl Chloride	ND	50.00	46.89	94	49.34	99	65-131	5	0-24	
p/m-Xylene	ND	100.0	85.47	85	88.98	89	70-130	4	0-30	
o-Xylene	ND	50.00	44.02	88	46.04	92	70-130	4	0-30	
Methyl-t-Butyl Ether (MTBE)	1.078	50.00	42.61	83	44.52	87	69-123	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

AMEC Environment & Infrastructure		Date Received:	11/07/13
121 Innovation Drive, Suite 200		Work Order:	13-11-0600
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: DTSC - Wildomar Autumnwood Development / NB10160TSP			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-12388	**LCS**	**Aqueous**	**GC/MS W**	**11/08/13**	**11/08/13 22:41**	**131108L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	48.09	96	80-120	73-127	
Carbon Tetrachloride	50.00	52.44	105	66-138	54-150	
Chlorobenzene	50.00	49.17	98	80-120	73-127	
1,2-Dibromoethane	50.00	51.57	103	80-120	73-127	
1,2-Dichlorobenzene	50.00	51.60	103	80-120	73-127	
1,2-Dichloroethane	50.00	43.78	88	80-129	72-137	
1,1-Dichloroethene	50.00	43.13	86	71-131	61-141	
Ethylbenzene	50.00	48.81	98	80-123	73-130	
Toluene	50.00	46.67	93	79-121	72-128	
Trichloroethene	50.00	47.13	94	80-120	73-127	
Vinyl Chloride	50.00	46.60	93	70-136	59-147	
p/m-Xylene	100.0	93.52	94	75-125	67-133	
o-Xylene	50.00	49.53	99	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	50.00	42.53	85	72-126	63-135	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-11-0600

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8260B	EPA 5030C	510	GC/MS W	2

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-11-0600

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN-OF-CUSTODY RECORD

NB 27368

PROJECT NAME: DTSC-Wildomar Autumnwood Development			DATE: 11/7/13 PAGE 1 OF 1
PROJECT NUMBER: NB101660TSP	LABORATORY NAME: Calscience	CLIENT INFORMATION:	REPORTING REQUIREMENTS:
RESULTS TO: Joe Bahde	LABORATORY ADDRESS: 7440 Lincoln Way Garden Grove, CA 92841		13-11-0600
TURNAROUND TIME: Standard 5-day TAT	LABORATORY CONTACT: Steve Nowak		GEOTRACKER REQUIRED YES NO
SAMPLE SHIPMENT METHOD: lab drop off	LABORATORY PHONE NUMBER: 714-895-5494		SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE):

ANALYSES

	DATE	TIME	SAMPLE NUMBER	VOCs EPA 8260B	Formaldehyde EPA 8315	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
1	11/7/13	0800	QCTB-11072013	X		40ml VOAs x2	W		HCl	✓		2	
2		0955	13-GW-27-32	X	X	1L Amber, 3x40ml VOA	W		HCl	✓		4	
3		0958	130-GW-27-32		X	1L Amber	W		—	✓		1	
4		1325	11-GW-31-36	X	X	1L Amber, 3x40ml VOA	W		HCl	✓		4	(*)
5		1328	110-GW-31-36	X		3x40 ml VOAs	W		HCl	✓		3	
6		1546	1-GW-19-24	X	X	3x40ml VOAs, 1L Amber	W		HCl	✓		4	

JC 11/7/13

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE:	11/07/13	1829	SIGNATURE:	11/07/13	1829
PRINTED NAME: Jorge Perez			PRINTED NAME: WEN-SHANG CHANG		
COMPANY: AMEC			COMPANY: CEL		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS: 18

SAMPLING COMMENTS:

temp. blank included in cooler.

(*) Container to analyze for VOCs is noted on sample bottle label

121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

amec

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-11-0600

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 11/07/13

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.6 °C - 0.2 °C (CF) = 3.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Checked by:** 778

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Checked by:** 778

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Checked by:** 854

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑ 854 11/7/13	☑	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 131031A **Labeled/Checked by:** 854

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 739

Preservative: h: HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** 739

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-11-0600

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis
2	C	3							

Comments: _____

*Transferred at Client's request.

Initial / Date: 854 11/07/13

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Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order: 13-11-0600

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Weck Laboratories, Inc. - City of Industry,CA NELAP 04229CA
   Formaldehyde

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Weck Laboratories, Inc.
Analytical Laboratory Service - Since 1964

Certificate of Analysis

Report Date: 11/11/13 16:57
Received Date: 11/08/13 10:15
Turnaround Time: Normal

Project: 13-11-0460

Phones: (714) 895-5494
Fax: (714) 894-7501

P.O. #:

Attn: Stephen Nowak

Client: Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Dear Stephen Nowak :

Enclosed are the results of analyses for samples received 11/8/2013 with the Chain of Custody document. The samples were received in good condition, at 3.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3K08030-01 **Sample ID: 13-GW-27-32** **Matrix:** Water
Sampled by: Client **Sampled: 11/07/13 09:55**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Formaldehyde	ND		30	ug/l	1	EPA 8315A	11/8/13	11/11/13 13:17	W3K0392	

Lab Sample ID: 3K08030-02 **Sample ID: 130-GW-27-32** **Matrix:** Water
Sampled by: Client **Sampled: 11/07/13 09:58**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Formaldehyde	ND		30	ug/l	1	EPA 8315A	11/8/13	11/11/13 13:17	W3K0392	

Lab Sample ID: 3K08030-03 **Sample ID: 11-GW-31-36** **Matrix:** Water
Sampled by: Client **Sampled: 11/07/13 13:25**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Formaldehyde	ND		30	ug/l	1	EPA 8315A	11/8/13	11/11/13 13:17	W3K0392	

Lab Sample ID: 3K08030-04 **Sample ID: 1-GW-19-24** **Matrix:** Water
Sampled by: Client **Sampled: 11/07/13 15:46**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Formaldehyde	ND		30	ug/l	1	EPA 8315A	11/8/13	11/11/13 13:17	W3K0392	

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Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com

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Quality Control Section

Aldehydes by EPA Method 8315A - Quality Control

Batch W3K0392 - EPA 8315A

Blank (W3K0392-BLK1) — **Prepared: 11/08/13** **Analyzed: 11/11/13 13:17**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde		ND		ug/l					

LCS (W3K0392-BS1) — **Prepared: 11/08/13** **Analyzed: 11/11/13 13:17**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde		102		ug/l	100	102	44-173		

Matrix Spike (W3K0392-MS1) — **Source: 3K08030-01** — **Prepared: 11/08/13** **Analyzed: 11/11/13 13:17**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde	ND	113		ug/l	100	113	32-164		

Matrix Spike Dup (W3K0392-MSD1) — **Source: 3K08030-01** — **Prepared: 11/08/13** **Analyzed: 11/11/13 13:17**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde	ND	115		ug/l	100	115	32-164	2	20

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Notes:
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature
Contact: Kim G Tu (Project Manager)

ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

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WECK LABORATORIES, INC.

Level "4" Deliverables (IC/LC) – EPA Method 8315

Lab Work Order No: 3K08030 (01-04) Client Sample ID: See COA

1. Acronyms and Abbreviations ……. 1

BLK:	Method Blank
BMI/AMI:	Before Manual Integration/After Manual Integration
BRL:	Below Reporting Limit
BS:	Blank Spike (or Lab Control Sample, LCS)
BSD:	Blank Spike Duplicate (or LCSD)
CCV:	Continuous Calibration Verification
COA:	Certificate of Analysis (Lab Report)
MS:	Matrix Spike
MSD:	Matrix Spike Duplicate
OCR:	Over Calibration Range
ORW:	Over Retention Time Window

2. Chain of Custody ……. 2
3. Sample results with analysis and preparation dates: See "COA" (Lab Report).
4. Summary of QC samples (BLK, BS/BSD, MS/MSD): See "Quality Control Section" of the "COA".
5. Summary of surrogate recoveries: See "COA".
6. Case Narratives: See cover page of "COA".
7. Batch QC Check List ……. 3
8. Preparation Bench Sheet ……. 4
9. Injection logs ……. 5
10. Raw data (chromatogram and quantitation report) ……. 6-17
11. Summary of continuing calibration (%R) ……. 18
12. Summary of initial calibration and raw data ……. 19-24
13. Standard preparation records ……. 25-26

Prepared by/Date: 01/21/2014 CWH Reviewed by/Date: 1-22-14

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: Weck Labs
City of Industry

3K08030

CHAIN

DATE:
PAGE:

LABORATORY CLIENT: Calscience Environmental Laboratories, Inc.
ADDRESS: 7440 Lincoln Way
CITY: Garden Grove, CA 92841
TEL: 714-895-5494
E-MAIL: snowak@calscience.com

CLIENT PROJECT NAME / NUMBER: 13-11-0460
PROJECT CONTACT: Stephen Nowak
SAMPLER(S): (PRINT)

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANAL

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Formaldehyde by EPA 8315
	13-GW-27-32	11/07/13	9:55	W	1	X
	130-GW-27-32	11/07/13	9:58	W	1	X
	11-GW-31-36	11/07/13	13:25	W	1	X
	1-GW-19-24	11/07/13	15:46	W	1	X

Relinquished by: (Signature) (CALSCIENCE)
Received by / Affiliation: (Signature) Jamalmer 3.1K

Relinquished by: (Signature)
Received by / Affiliation: (Signature)

Relinquished by: (Signature)
Received by / Affiliation: (Signature)

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Appendix 1
Data Validation Worksheet

WECK LABORATORIES, INC.

Batch QC Check List - EPA 8315A

Date analyzed: 11/11/2013 Cal Std/CCV ID: ~~3101021~~ 3090345 Batch#: W3K0392

Analyst(s) initials: CWH ICV/LCS ID: 3100375 Inst.ID: LC02

QC	Frequency	Criteria	Status P	Status F	Status IR	Comments
ICAL						
r^2 or COD	when necessary	> 0.99	✓			
and						
low-level cal std	from ICAL	50-150%	✓			At or below RL
and						
mid and high level cal stds	from ICAL	85-115%	✓			
and						
ICV (extracted)		80-120%	✓			Mid-level
Daily analysis						
System Blank	beginning	< MRL	✓			
low-level CCV	beginning	50-150%	✓			At or below RL, if no same-day ICAL
Method Blank	1 in 20	< MRL	✓			
LCS	1 in 20	see current criteria	✓			
MS	1 in 20	see current criteria	✓			
MSD	1 in 20	see current criteria	✓			
RPD	1 in 20	≤ 20%	✓			
CCV	1 in 10 ^	85-115%	✓			Alternate mid and high levels
CCV	1 in 10 ^	85-115%				Alternate mid and high levels

^ After every 10 samples, but also at the end of each batch

Comments:

Approved by/date: 11/11/13

SOP ORG005.R07 3/08
Aldehydes by HPLC, EPA 8315A
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PREPARATION BENCH SHEET

WECK LABORATORIES, INC.

Batch: **W3K0392**

Pre

Lab Number Sample Name	Analysis Due Date	By	Prepared Sampled	Initial (ml)	Final (ml)	pH	Surrogate (ul)	Client
3K08030-01 - 13-GW-27-32	8315 Water formaldehyde 11/20/13 12:00	par	11/08/13 13:48 11/07/13 09:55	100	10			Calscience Environmental Laboratories
3K08030-02 - 130-GW-27-32	8315 Water formaldehyde 11/20/13 12:00	par	11/08/13 13:48 11/07/13 09:58	100	10			Calscience Environmental Laboratories
3K08030-03 - 11-GW-31-36	8315 Water formaldehyde 11/20/13 12:00	par	11/08/13 13:48 11/07/13 13:25	100	10			Calscience Environmental Laboratories
3K08030-04 - 1-GW-19-24	8315 Water formaldehyde 11/20/13 12:00	par	11/08/13 13:48 11/07/13 15:46	100	10			Calscience Environmental Laboratories

LabNumber	By	Prepared	Initial (ml)	Final (ml)	Source ID	Spike 1 ID Spike 1	Spike 1 Amt (ul)	Spike 2 ID Spike 2	Spike 2 Amt (ul)	Surrogate (ul)	Comments
W3K0392-BLK1 Blank	par	**11/08/13 13:48**	100	10	-						
W3K0392-BS1 LCS	par	**11/08/13 13:48**	100	10	-	**3100375** Pre-Prep	100				
W3K0392-MS1 Matrix Spike	par	**11/08/13 13:48**	100	10	3K08030-01	**3100375** Pre-Prep	100				
W3K0392-MSD1 Matrix Spike Dup	par	**11/08/13 13:48**	100	10	3K08030-01	**3100375** Pre-Prep	100				

ID	Description	Vendor	Lot Number	Type	Expiration	Init	Comments
3100375	8315 LCS spike	Ultra Scientific	CK-1754	Spike Mix	10/04/14	cwh	Ultra Scientific 2 analytes@ 1000ug/ml
3030370	Dichloromethane MeCl2/CS299-200	VWR	DH943	Reagent	03/11/24	fan	1 X 200 Liters
1090041	Acetonitrile, HP412	Spectrum	1AE0584	Reagent	09/01/15	alc	Acetonitrile, HPLC Grade

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Prepared By Date Received By Date Analyzed By

Sequence: 111113
Operator: station14

Printed: 11/11/2013 1:32:38 PM

Title: EPA 8315A
Datasource: ICSTATION14_local
Location: LC#2\8315A\2013\11 Nov 2013
Timebase: LC#2
#Samples: 17

Created: 6/19/2006 10:21:19 AM by Station15
Last Update: 11/11/2013 1:04:58 PM by station14

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time	Weight	Dil. Factor	Sample ID	Comment
1	ccv 300 ppb	Standard	C6	50.0	8315A	8315A	Finished	11/11/2013 9:02:07 AM	1.0000	1.0000	~~3101021~~	
2	ccv 500 ppb	Standard	C7	50.0	8315A	8315A	Finished	11/11/2013 9:17:24 AM	1.0000	1.0000	3101021	
3	ccv 1000 ppb	Standard	C8	50.0	8315A	8315A	Finished	11/11/2013 9:32:42 AM	1.0000	1.0000	3101021	3090345
4	ccv 2000 ppb	Standard	C9	50.0	8315A	8315A	Finished	11/11/2013 9:48:00 AM	1.0000	1.0000	3101021	
5	ccv 3000 ppb	Standard	C10	50.0	8315A	8315A	Finished	11/11/2013 10:03:19 AM	1.0000	1.0000	~~3101021~~	
6	ICV 1000 ppb	Unknown	C7	50.0	8315A	8315A	Finished	11/11/2013 10:23:30 AM	1.0000	1.0000	3100375	
7	System Blank	Unknown	C1	50.0	8315A	8315A	Finished	11/11/2013 10:38:49 AM	1.0000	1.0000		
8	ccv 300 ppb	Unknown	C3	50.0	8315A	8315A	Finished	11/11/2013 10:54:07 AM	1.0000	1.0000	~~3101021~~	3090345
9	W3K0392-BLK	Unknown	C6	50.0	8315A	8315A	Finished	11/11/2013 11:14:47 AM	1.0000	1.0000		
10	W3K0392-BS	Unknown	C7	50.0	8315A	8315A	Finished	11/11/2013 11:30:05 AM	1.0000	1.0000	3100375	
11	3K08030-01	Unknown	C8	50.0	8315A	8315A	Finished	11/11/2013 11:45:23 AM	1.0000	1.0000	CEL	
12	3K08030-02	Unknown	C9	50.0	8315A	8315A	Finished	11/11/2013 12:00:41 PM	1.0000	1.0000	CEL	
13	3K08030-03	Unknown	C10	50.0	8315A	8315A	Finished	11/11/2013 12:16:00 PM	1.0000	1.0000	CEL	
14	3K08030-04	Unknown	C11	50.0	8315A	8315A	Finished	11/11/2013 12:31:18 PM	1.0000	1.0000	CEL	
15	W3K0392-MS	Unknown	C12	50.0	8315A	8315A	Finished	11/11/2013 12:46:35 PM	1.0000	1.0000	CEL/3100375	
16	W3K0392-MSD	Unknown	C13	50.0	8315A	8315A	Finished	11/11/2013 1:01:53 PM	1.0000	1.0000	CEL/3100375	
17	ccv 1000 ppb	Unknown	C4	50.0	8315A	8315A	Finished	11/11/2013 1:17:12 PM	1.0000	1.0000	~~3101021~~	3090345

CWH 01/21/2014

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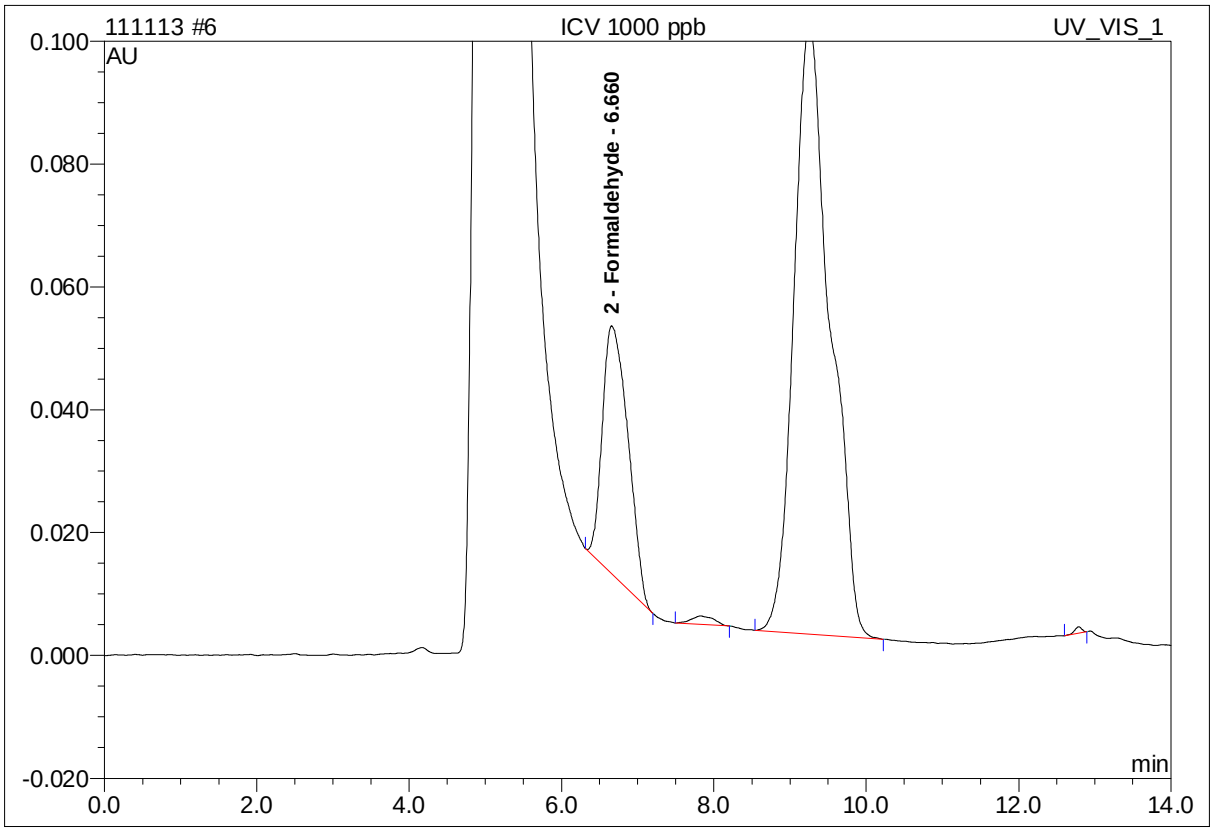
Chromeleon © Dionex Corporation, Version 6.80 Build 2212

6 ICV 1000 ppb

Sample Name:	**ICV 1000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C7**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 10:23**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.66	Formaldehyde	0.040	0.016	20.99	1.12	1006.237
Total:			0.040	0.016	20.99		1006.237

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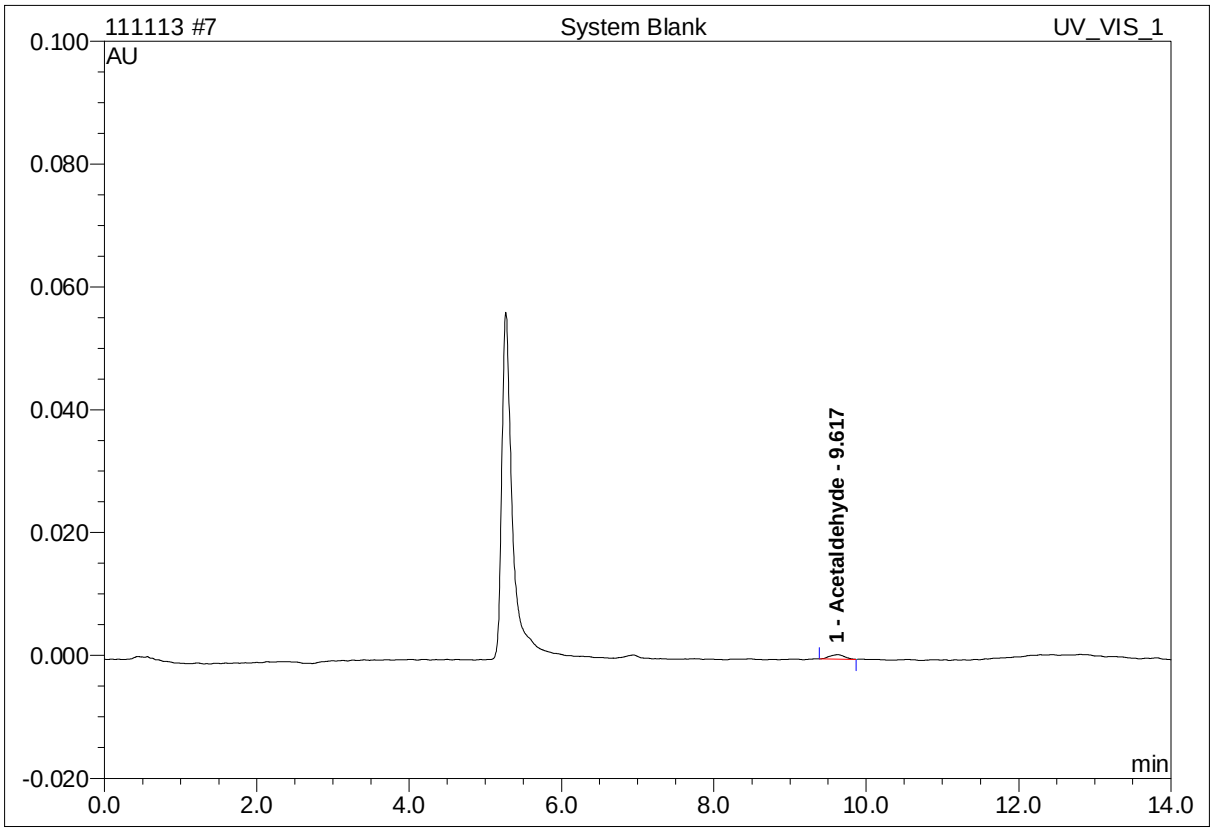
7 System Blank

Sample Name:	**System Blank**	*Injection Volume:*	**50.0**
Vial Number:	**C1**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:		*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 10:38**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	9.62	Acetaldehyde	0.001	0.000	100.00	1.16	n.a.
Total:			0.001	0.000	100.00		0.000

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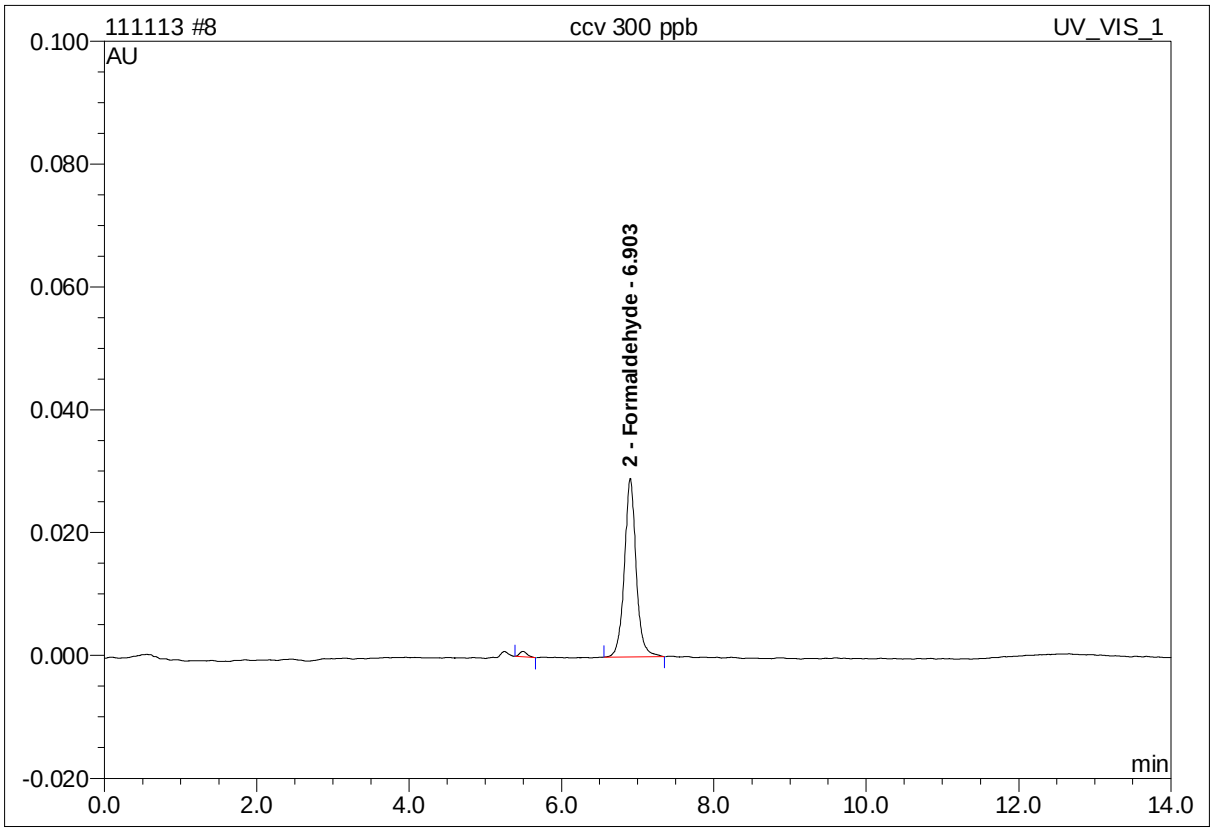
8 ccv 300 ppb

Sample Name:	**ccv 300 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C3**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 10:54**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.90	Formaldehyde	0.029	0.005	98.05	0.87	299.342
Total:			0.029	0.005	98.05		299.342

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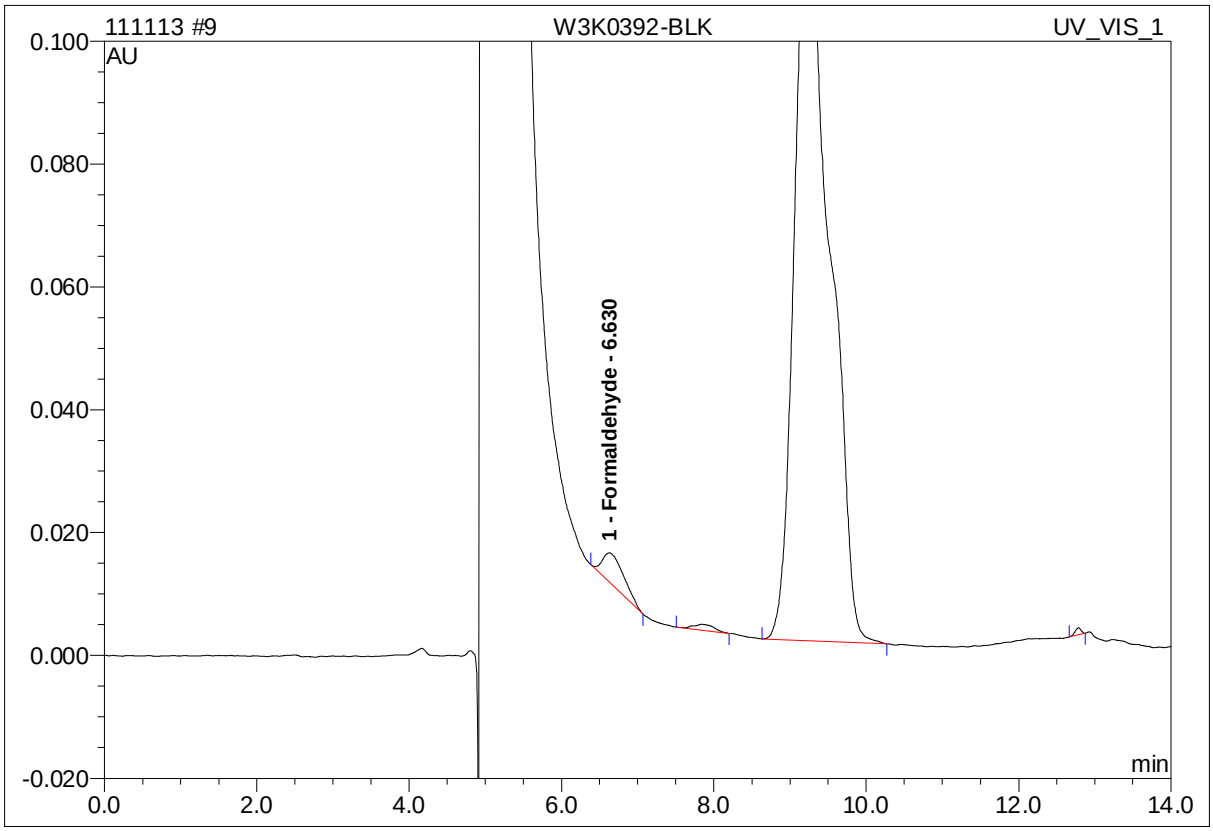
9 W3K0392-BLK

Sample Name:	**W3K0392-BLK**	*Injection Volume:*	**50.0**
Vial Number:	**C6**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:		*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 11:14**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.63	Formaldehyde	0.005	0.002	2.48	1.11	63.598
Total:			0.005	0.002	2.48		63.598

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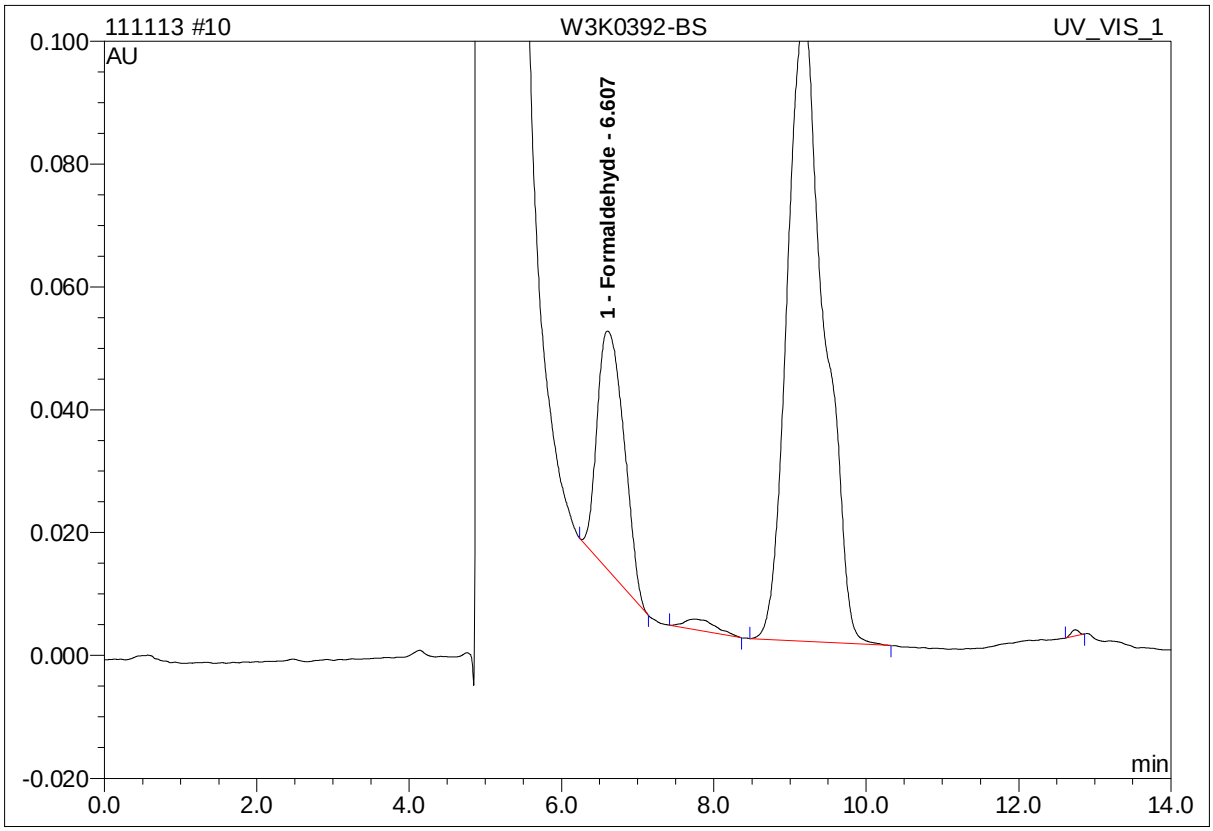
10 W3K0392-BS

Sample Name:	**W3K0392-BS**	*Injection Volume:*	**50.0**
Vial Number:	**C7**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 11:30**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.61	Formaldehyde	0.039	0.016	21.60	1.15	1015.608
Total:			0.039	0.016	21.60		1015.608

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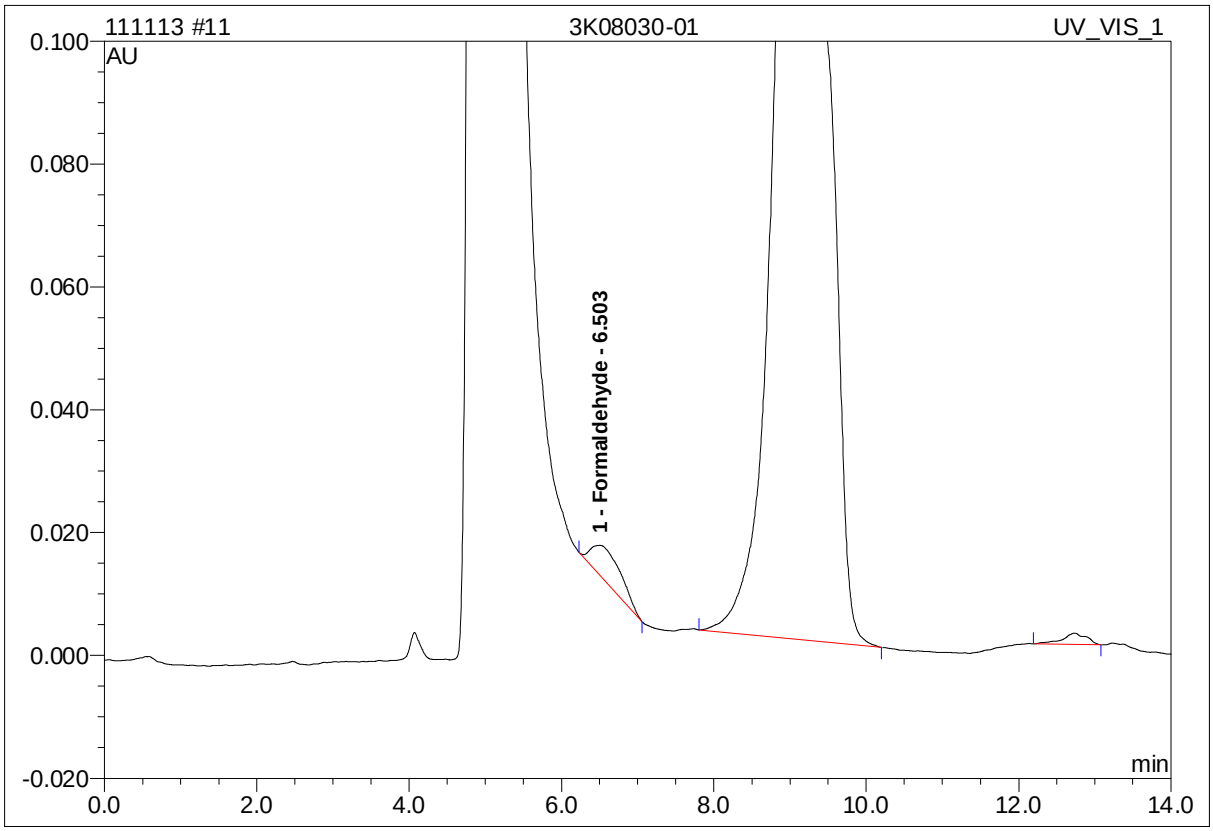
11 3K08030-01

Sample Name:	**3K08030-01**	*Injection Volume:*	**50.0**
Vial Number:	**C8**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 11:45**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.50	Formaldehyde	0.005	0.002	1.64	1.31	117.122
Total:			0.005	0.002	1.64		117.122

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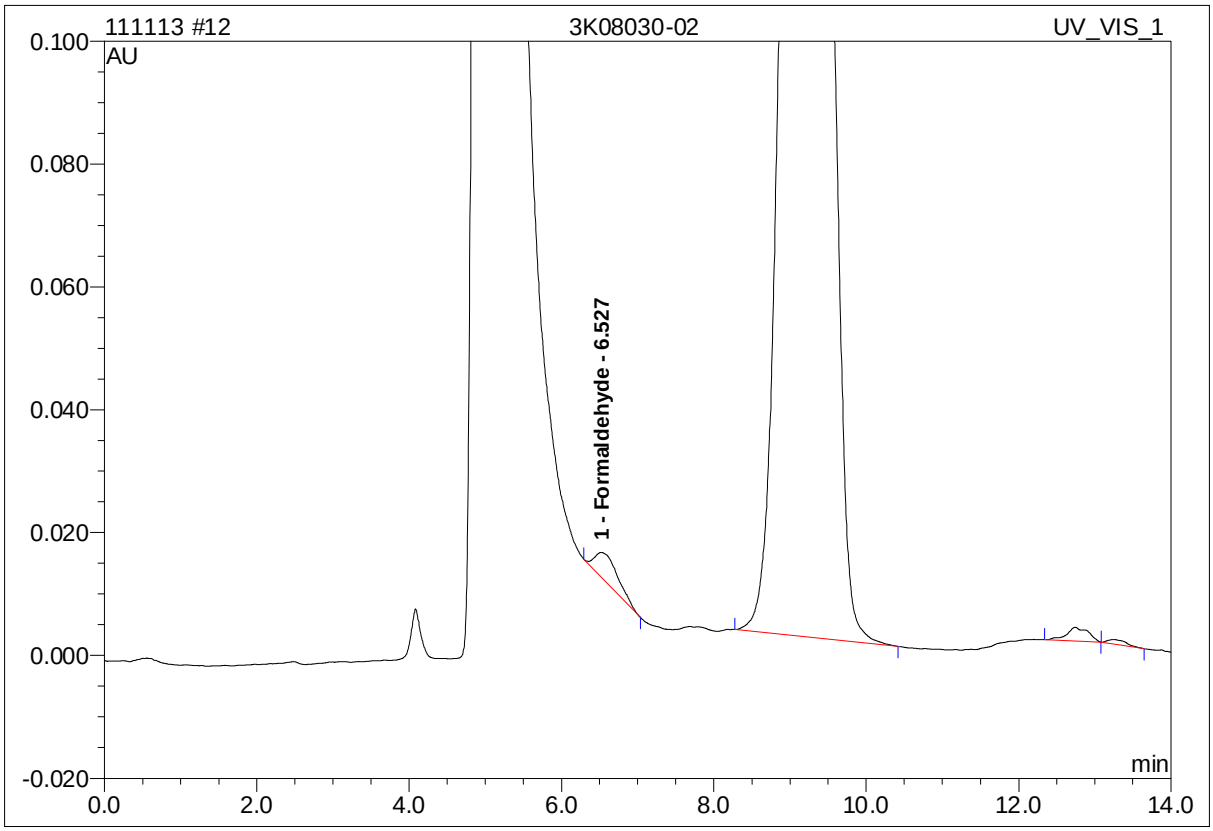
12 3K08030-02

Sample Name:	**3K08030-02**	*Injection Volume:*	**50.0**
Vial Number:	**C9**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 12:00**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.53	Formaldehyde	0.004	0.002	0.95	1.12	59.019
Total:			0.004	0.002	0.95		59.019

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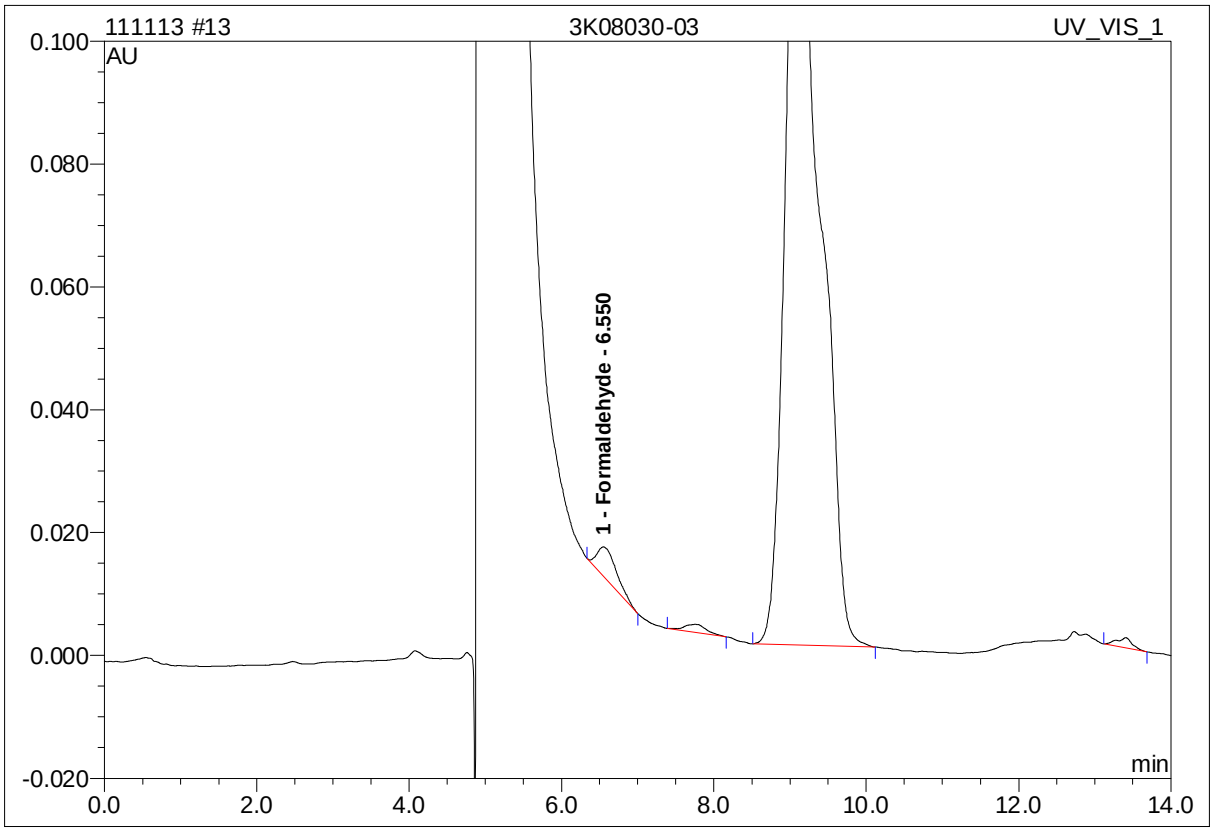
13 3K08030-03

Sample Name:	**3K08030-03**	*Injection Volume:*	**50.0**
Vial Number:	**C10**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 12:16**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.55	Formaldehyde	0.005	0.001	2.04	1.03	53.625
Total:			0.005	0.001	2.04		53.625

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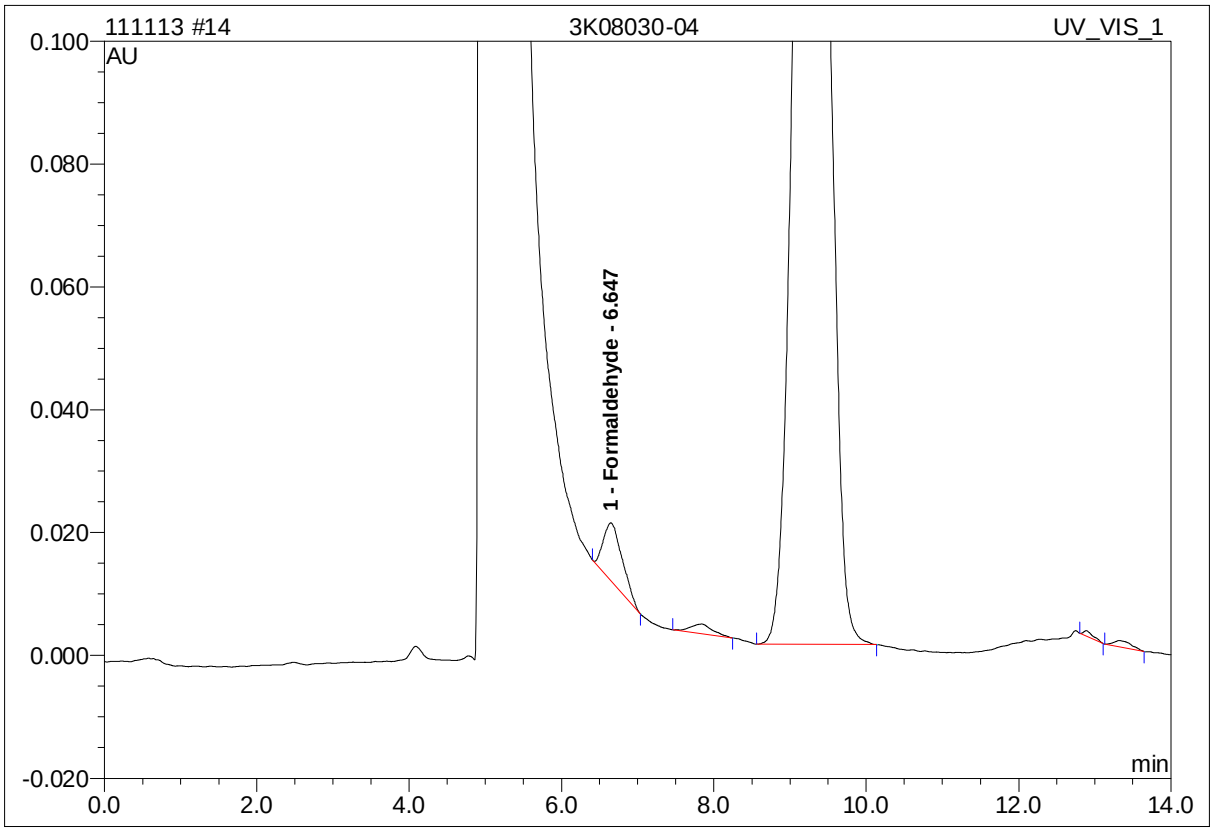
14 3K08030-04

Sample Name:	**3K08030-04**	*Injection Volume:*	**50.0**
Vial Number:	**C11**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 12:31**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.65	Formaldehyde	0.009	0.003	2.85	1.06	136.149
Total:			0.009	0.003	2.85		136.149

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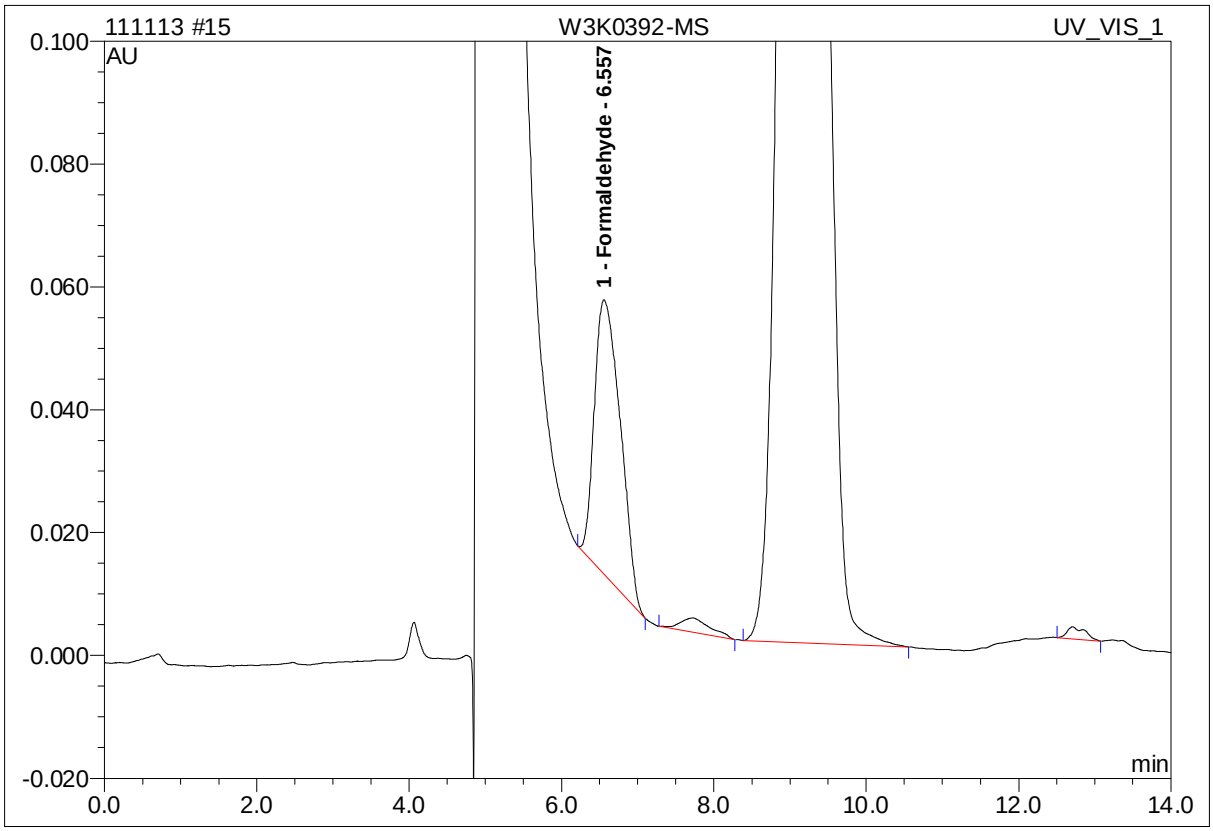
15 W3K0392-MS

Sample Name:	**W3K0392-MS**	*Injection Volume:*	**50.0**
Vial Number:	**C12**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL/3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 12:46**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.56	Formaldehyde	0.045	0.018	9.88	1.14	1129.717
Total:			0.045	0.018	9.88		1129.717

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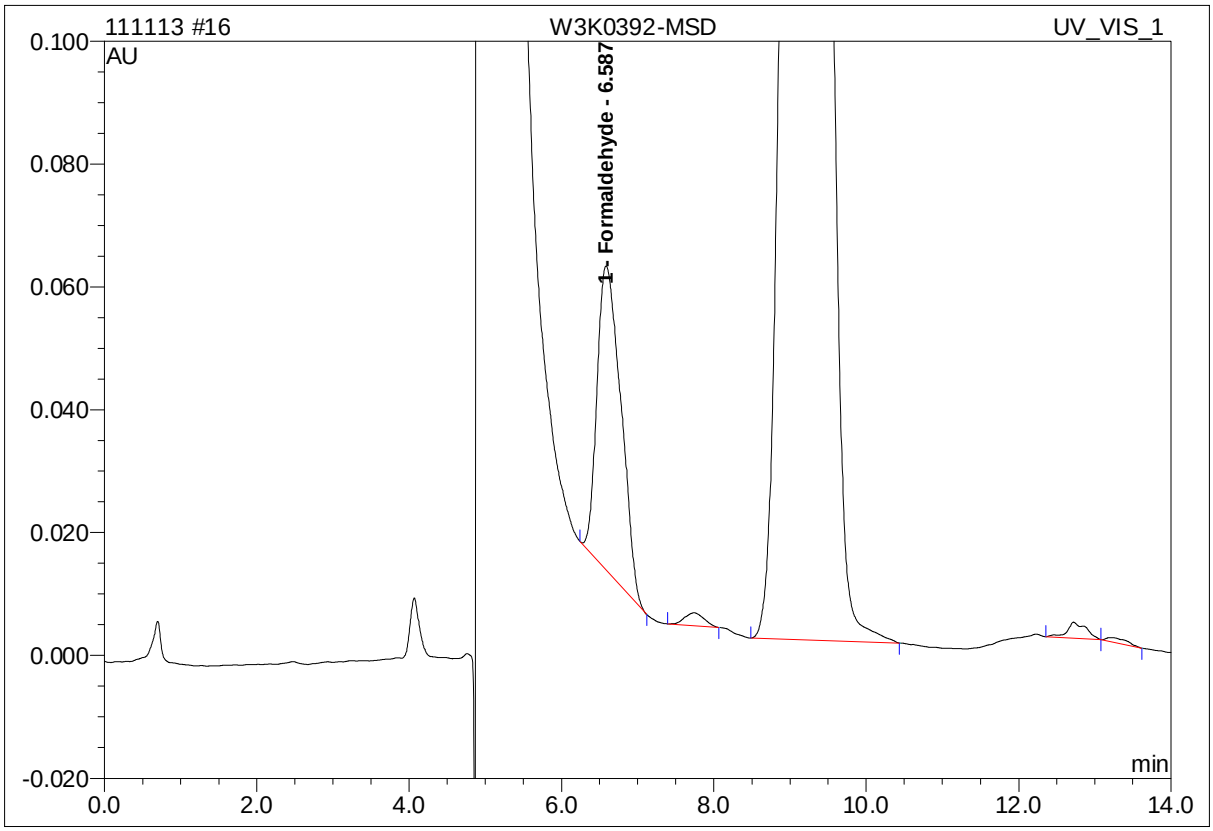
16 W3K0392-MSD

Sample Name:	**W3K0392-MSD**	*Injection Volume:*	**50.0**
Vial Number:	**C13**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL/3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 13:01**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.59	Formaldehyde	0.049	0.018	8.92	1.12	1151.563
Total:			0.049	0.018	8.92		1151.563

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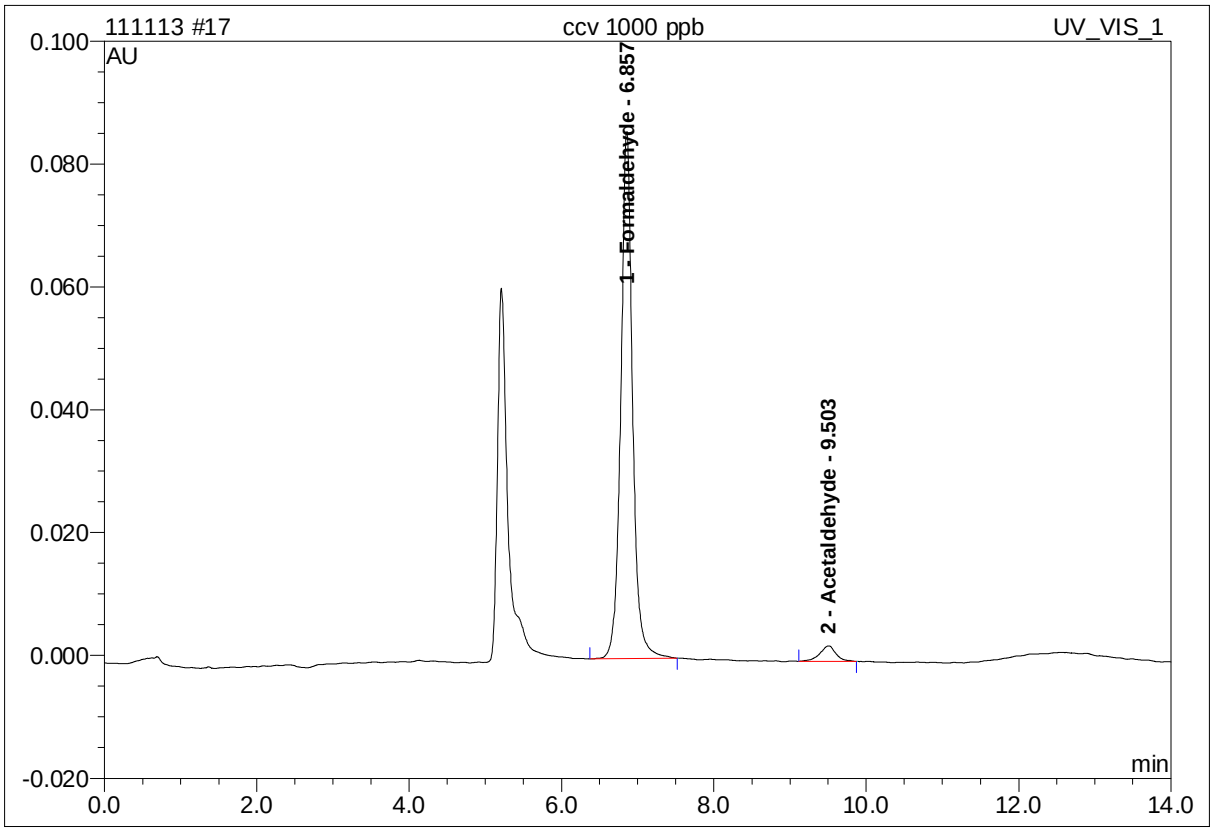
17 ccv 1000 ppb

Sample Name:	**ccv 1000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C4**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 13:17**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.86	Formaldehyde	0.086	0.015	96.11	0.87	973.051
2	9.50	Acetaldehyde	0.003	0.001	3.89	0.85	n.a.
Total:			0.088	0.016	100.00		973.051

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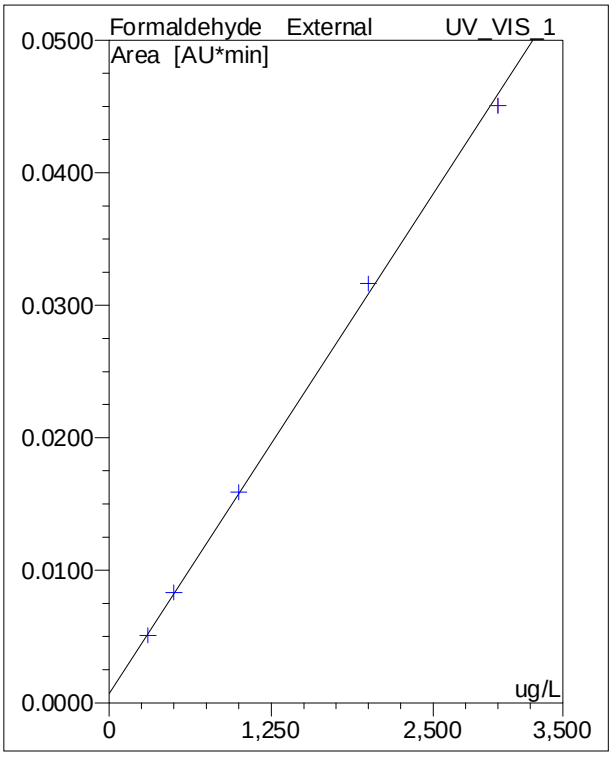
Continuing Calibration Verification
8315

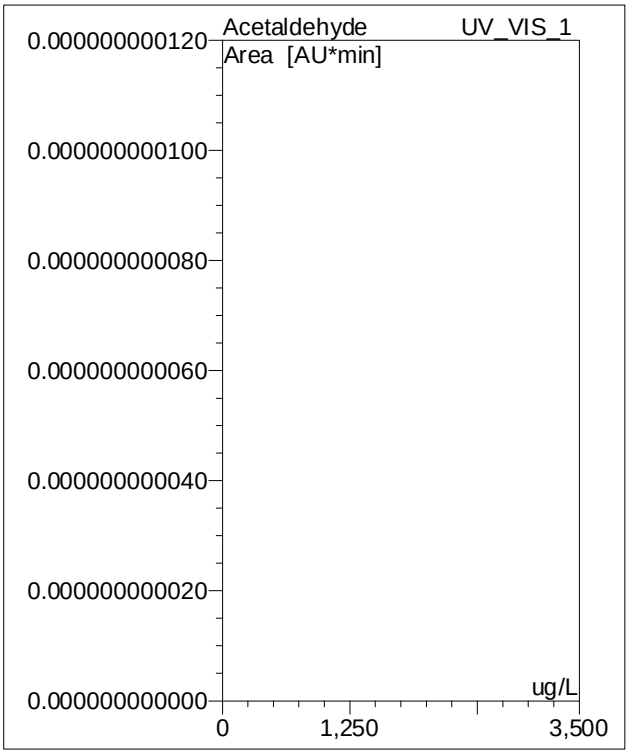
	Analysis Date/Time	True Value	Reported Value	Percent Recovery
CCV				
300	11/11/2013 10:54	300	299.342	99.78066667
1000	11/11/2013 13:17	1000	973.051	97.3051

Return to Contents

5 ccv 3000 ppb

Sample Name:	**ccv 3000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C10**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**8315A**	*Bandwidth:*	**n.a.**
Quantif. Method:	**8315A**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/11/2013 10:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**14.00**	*Sample Amount:*	**1.0000**

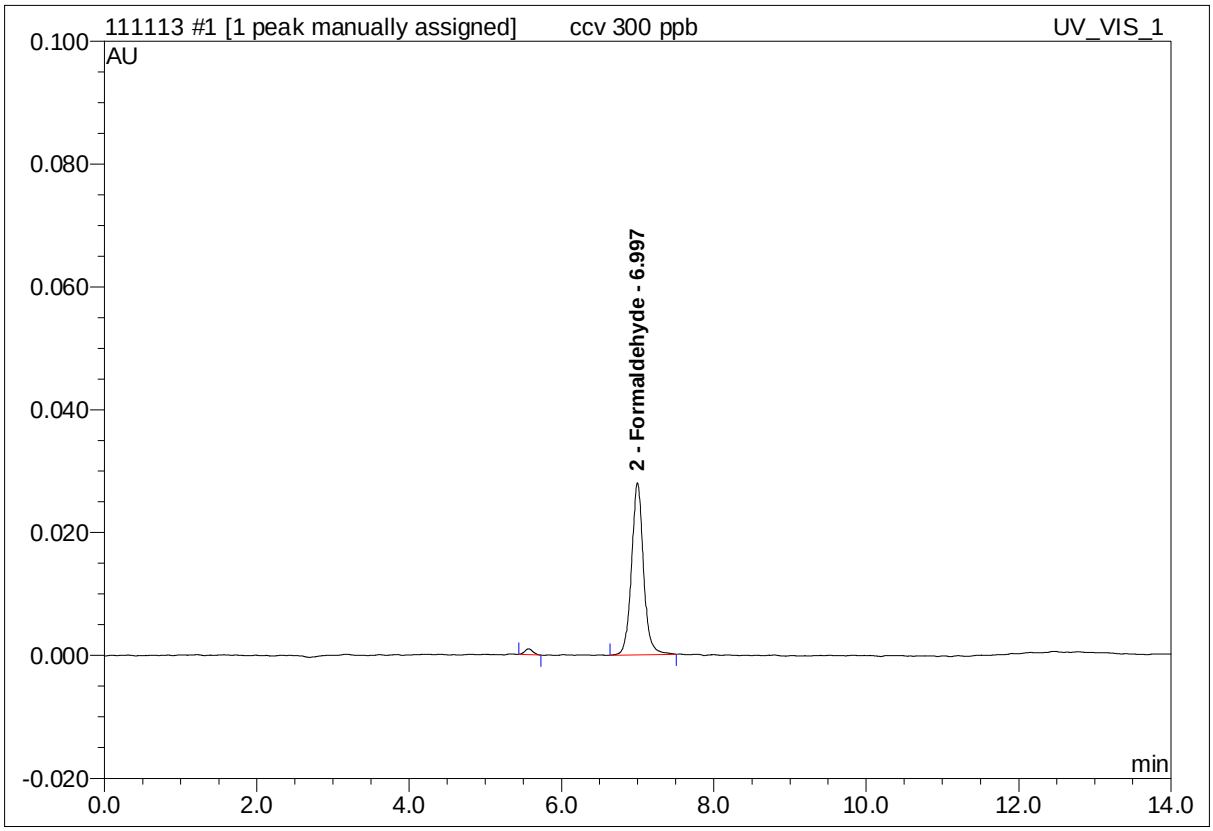




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	5.51	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	6.93	Formaldehyde	XLOff	5	99.9569	0.6866	0.0151	0.00000
Average:					99.9569	0.6866	0.0151	0.0000

1 ccv 300 ppb

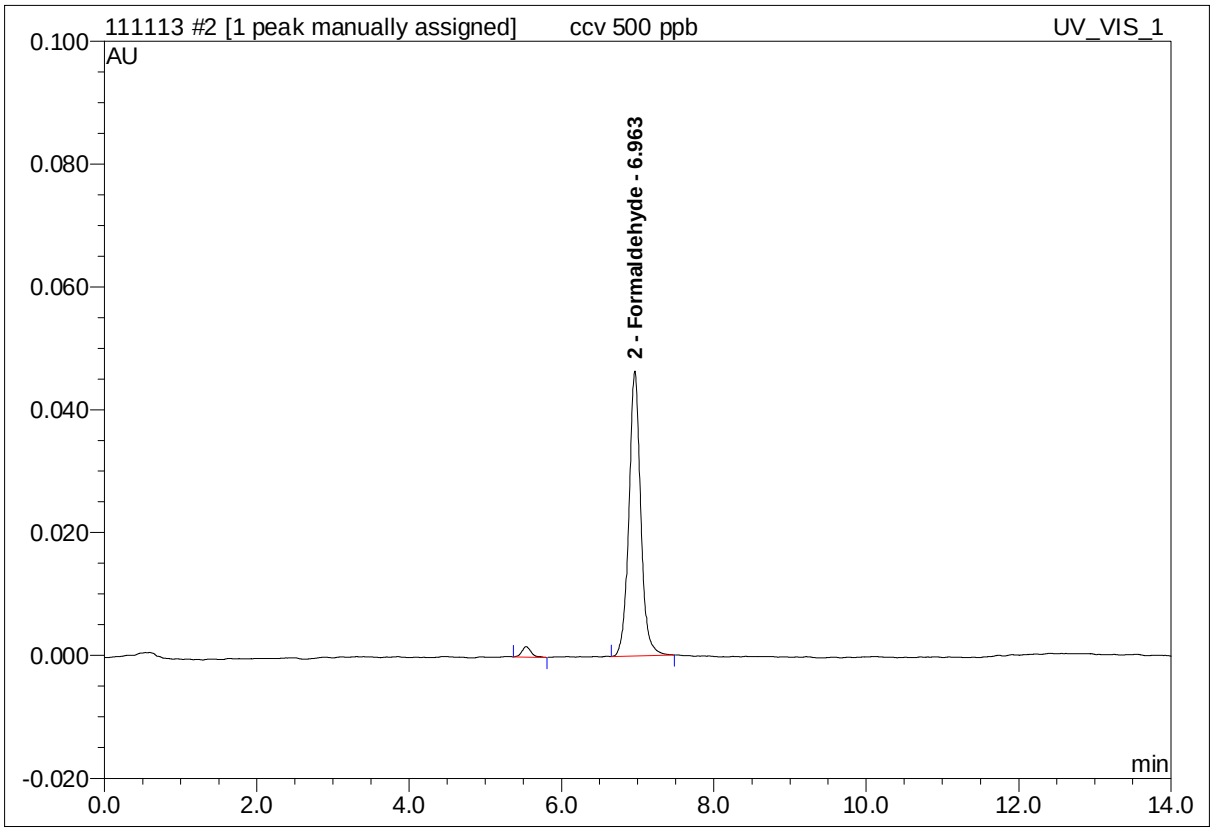
Sample Name:	**ccv 300 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C6**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:02**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	7.00	Formaldehyde	0.028	0.005	97.77	0.89	291.959
Total:			0.028	0.005	97.77		291.959

2 ccv 500 ppb

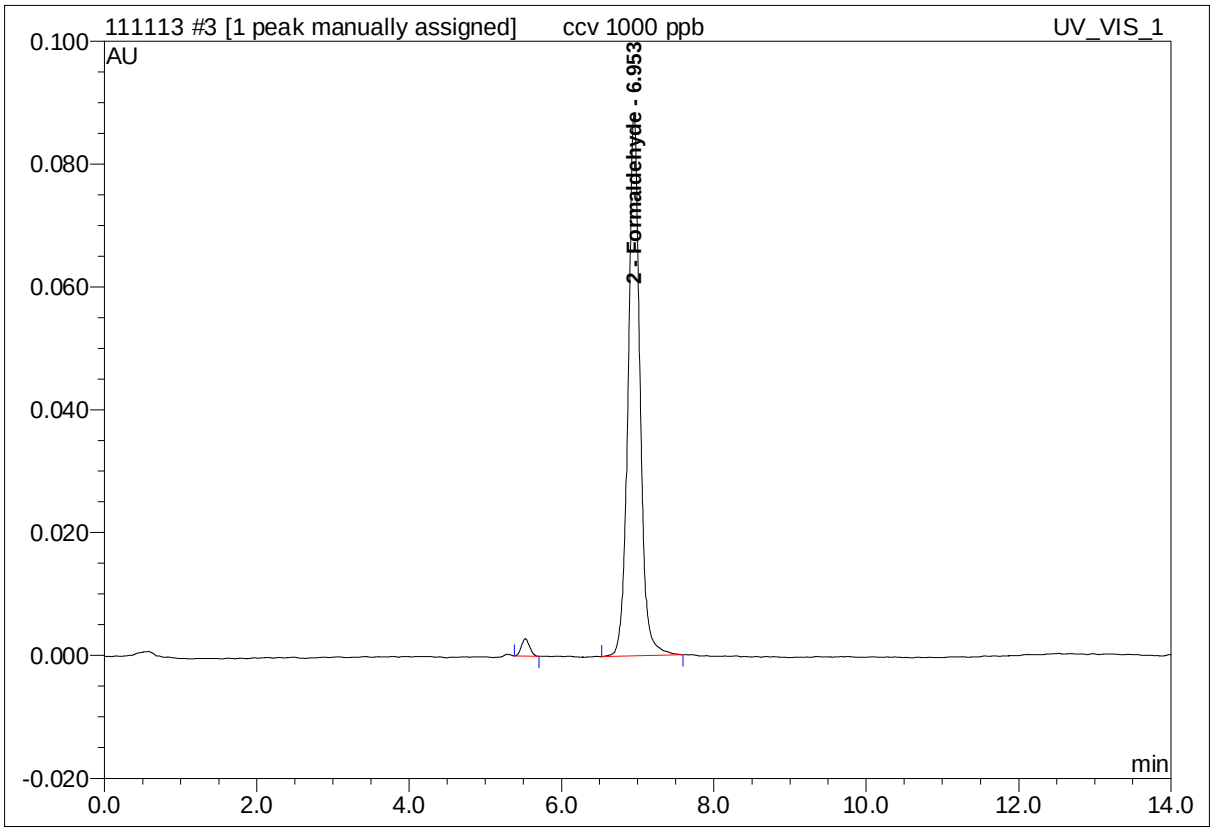
Sample Name:	**ccv 500 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C7**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:17**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.96	Formaldehyde	0.046	0.008	97.24	0.88	506.248
Total:			0.046	0.008	97.24		506.248

3 ccv 1000 ppb

Sample Name:	**ccv 1000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C8**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:32**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.95	Formaldehyde	0.088	0.016	97.82	0.89	1007.435
Total:			0.088	0.016	97.82		1007.435

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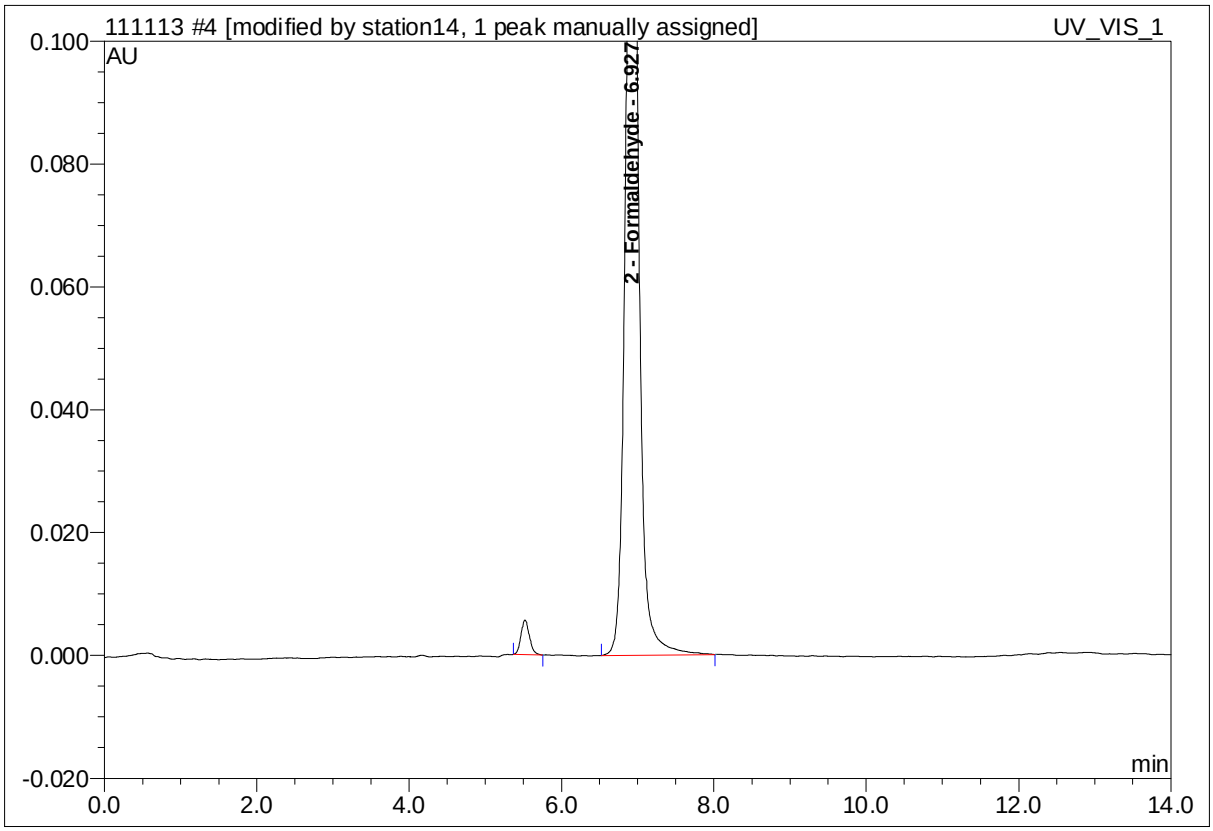
4 ccv 2000 ppb

Sample Name:	**ccv 2000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C9**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:48**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.93	Formaldehyde	0.174	0.032	97.77	0.88	2052.523
Total:			0.174	0.032	97.77		2052.523

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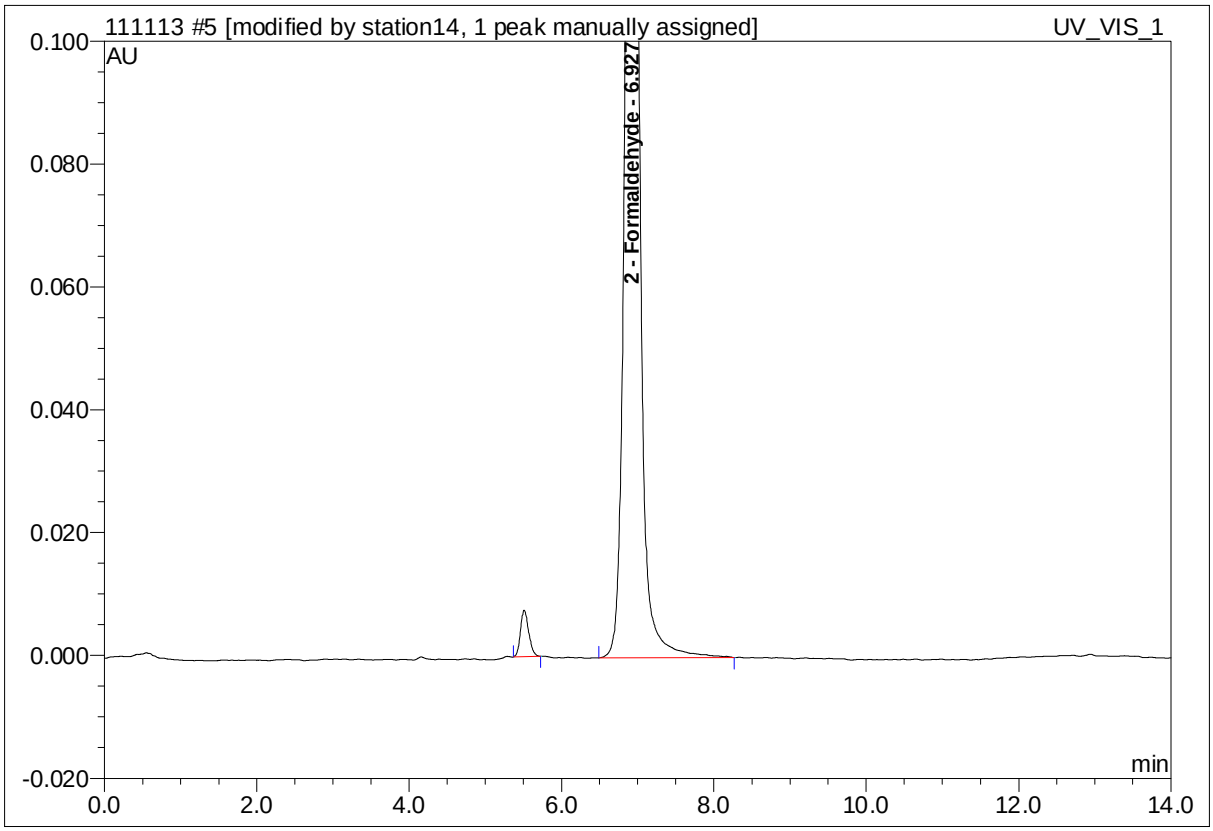
5 ccv 3000 ppb

Sample Name:	**ccv 3000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C10**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 10:03**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.93	Formaldehyde	0.244	0.045	97.96	0.89	2941.835
Total:			0.244	0.045	97.96		2941.835

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Analytical Standard Record

Weck Laboratories, Inc

3090345

Description:	8315 Formaldehyde CCV	Expires:	10/10/17
Standard Type:	Calibration Stan	Prepared:	09/07/13
Solvent:	Acetonitrile	Prepared By:	James Hseu
Final Volume (mls):	1	Department:	HPLC-E
Vials:	1	Last Edit:	09/07/13 08:56 by cwh

Absolute Standards Formaldehyde-DNPH
P/N83547
Lot # 101012

Analyte	CAS Number	Concentration	Units
Formaldehyde	50-00-0	100	ug/mL

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Analytical Standard Record

Weck Laboratories, Inc

3100375

Description:	8315 LCS spike	Expires:	10/04/14
Standard Type:	Analyte Spike	Prepared:	10/04/13
Solvent:	Water	Prepared By:	James Hseu
Final Volume (mls):	3	Department:	HPLC-E
Vials:	1	Last Edit:	10/04/13 10:48 by cwh

Ultra Scientific 2 analytes@ 1000ug/mL in water
ALD-100-1
lot # CK1754

Analyte	CAS Number	Concentration	Units
Formaldehyde	50-00-0	100	ppm
Acetaldehyde	75-07-0	100	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3060224	8315 LCS stock	06/07/13	James Hseu	06/30/15	06/07/13 08:30 by cwh	0.3

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Calscience Environmental Laboratories, Inc.

Case Narrative

Client Project Name: DTSC – Wildomar Autumnwood Development / NB10160TSP
Work Order Number: 13-11-0600

CONDITION UPON RECEIPT:

Calscience Laboratories received six aqueous samples on November 11th, 2013. A total of 18 containers were received in good condition at temperatures of 3.4°C, which was within the recommended temperature criteria of >0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
QCTB-11072013	13-11-0600-1	11/07/13 08:00	11/07/13 18:29
13-GW-27-32	13-11-0600-2	11/07/13 09:55	11/07/13 18:29
130-GW-27-32	13-11-0600-3	11/07/13 09:58	11/07/13 18:29
11-GW-31-36	13-11-0600-4	11/07/13 13:25	11/07/13 18:29
110-GW-31-36	13-11-0600-5	11/07/13 13:28	11/07/13 18:29
1-GW-19-24	13-11-0600-6	11/07/13 15:46	11/07/13 18:29

DATA SUMMARY:

As per the chain-of-custody (COC), the samples were analyzed using one or more of the following methodologies:

- EPA Method 8260B for Volatile Organic Compounds (VOCs)

The samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integration made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

All samples and analytical QC are within acceptance criteria unless otherwise noted.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Case Narrative

Client Project Name: DTSC – Wildomar Autumnwood Development / NB10160TSP
Work Order Number: 13-11-0600

EPA 8260B – VOLATILE ORGANIC COMPOUNDS (Aqueous):

Samples 13-11-0600: -1, -2, -4, -5, and -6 were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260B. The samples were prepared on 11/08/13 and analyzed on 11/09/13 in batch #s 131108L03 / 131108S03 on GC/MS W.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 10/22/13 on GC/MS W. The % RSD for each project-specific analyte was ≤ 15% except for Bromoform, n-Butylbenzene, Chloromethane, 2-Hexanone, Naphthalene, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Bromomethane, Chloromethane, and Vinyl Acetate were biased high.

Manual integrations were performed on one or more non-target analytes in one or more of the ICAL standards to correct the peak and/or baseline integration.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria for all project-specific except for Bromoform and Bromomethane were biased high while 2-Butanone was biased low.

Tuning Standards:

All instrument tuning standards (BFB) were within criteria.

Sample and QC Data:

The method blank was non-detect and the LCS was within acceptance criteria for all project-specific analytes.

MS/MSD were within acceptance criteria for all project-specific analytes except for 1,1-Dichloroethene.

A non-client sample was used for the MS/MSD, please refer to the MS/MSD summary form for further information.

All surrogate and internal standard recoveries were within acceptance criteria.

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EPA METHOD 8260B

RAW DATA

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EPA METHOD 8260B

Initial Calibration

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INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

Work Order #: 13-11-0600
Instrument: GC/MS W
ICAL Batch ID: 131022IC
ICAL D/T Analyzed: 10/22/2013 12:36

Reviewed By:
D/T Reviewed:
Analyst: 510

Analyte	Calib. Model	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD Control Limit	r or r^2	r or r^2 Control Limit	Status
Acetone	LR - Equal			0.106	0.088	0.080	0.067	0.064							0.999	r>=0.990	PASS
Benzene	Avg Resp	1.773	1.860	1.741	1.765	1.791	1.756	1.644			1.761	0.00	4	0-15			PASS
Bromobenzene	Avg Resp		0.546	0.492	0.516	0.546	0.547	0.539			0.531	0.00	4	0-15			PASS
Bromochloromethane	Avg Resp		0.368	0.367	0.341	0.302	0.270	0.254			0.317	0.00	15	0-15			PASS
Bromodichloromethane	Avg Resp		0.484	0.498	0.505	0.520	0.548	0.540			0.516	0.00	5	0-15			PASS
Bromoform	**Avg Resp**		0.319	0.236	0.246	0.298	0.342	0.388			0.305	**0.10**	**19**	**0-15**			**FAIL**
Bromomethane	Avg Resp			0.314	0.269	0.309	0.374	0.305			0.314	0.00	12	0-15			PASS
2-Butanone	Avg Resp			0.298	0.307	0.299	0.299	0.306			0.302	0.00	2	0-15			PASS
n-Butylbenzene	**Avg Resp**		2.310	2.670	3.168	3.527	3.598	3.562			3.139	**0.00**	**17**	**0-15**			**FAIL**
sec-Butylbenzene	Avg Resp		3.242	3.680	3.986	4.386	4.425	4.396			4.019	0.00	12	0-15			PASS
tert-Butylbenzene	Avg Resp		0.669	0.634	0.720	0.791	0.794	0.768			0.729	0.00	9	0-15			PASS
Diethyl Ether	LR - Equal		0.543	0.358	0.333	0.324	0.327	0.306							1.000	r>=0.990	PASS
Carbon Disulfide	LR - Equal		2.883	2.316	2.256	2.182	1.869	1.888							0.999	r>=0.990	PASS
Carbon Tetrachloride	Avg Resp	0.701	0.799	0.708	0.713	0.742	0.740	0.742			0.735	0.00	5	0-15			PASS
Chlorobenzene	Avg Resp		1.344	1.246	1.233	1.263	1.253	1.202			1.257	0.30	4	0-15			PASS
Chloroethane	Avg Resp		0.566	0.554	0.544	0.407	0.450	0.482			0.500	0.00	13	0-15			PASS
2-Chloroethyl Vinyl Ether	Avg Resp			0.394	0.396	0.395	0.401	0.377			0.393	0.00	2	0-15			PASS
Chloroform	Avg Resp		1.300	1.206	1.195	1.147	1.106	1.023			1.163	0.00	8	0-30			PASS
Chloromethane	**Avg Resp**		0.545	0.503	0.531	0.552	0.650	0.786			0.594	**0.10**	**18**	**0-15**			**FAIL**
2-Chlorotoluene	Avg Resp		1.553	1.451	1.565	1.648	1.645	1.607			1.578	0.00	5	0-15			PASS
4-Chlorotoluene	Avg Resp		2.726	2.821	3.042	3.196	3.173	3.102			3.010	0.00	6	0-15			PASS
Dibromochloromethane	Avg Resp		0.293	0.289	0.309	0.338	0.370	0.388			0.331	0.00	12	0-15			PASS
1,2-Dibromo-3-Chloropropane	Avg Resp			0.138	0.144	0.151	0.166	0.191			0.158	0.00	13	0-15			PASS
1,2-Dibromoethane	Avg Resp		0.294	0.332	0.340	0.344	0.357	0.353			0.337	0.00	7	0-15			PASS
Dibromomethane	Avg Resp		0.249	0.222	0.233	0.221	0.221	0.185			0.221	0.00	10	0-15			PASS
1,2-Dichlorobenzene	Avg Resp		1.799	1.577	1.580	1.615	1.651	1.656			1.646	0.00	5	0-15			PASS
1,3-Dichlorobenzene	Avg Resp		1.866	1.677	1.714	1.762	1.764	1.743			1.754	0.00	4	0-15			PASS
1,4-Dichlorobenzene	Avg Resp		2.138	1.804	1.777	1.804	1.793	1.759			1.846	0.00	8	0-15			PASS
Dichlorodifluoromethane	Avg Resp		0.988	1.011	1.001	0.921	0.874	0.885			0.947	0.00	6	0-15			PASS
1,1-Dichloroethane	Avg Resp		1.418	1.263	1.221	1.164	1.086	0.997			1.192	0.10	12	0-15			PASS
1,2-Dichloroethane	Avg Resp	0.679	0.649	0.613	0.595	0.589	0.596	0.570			0.613	0.00	6	0-15			PASS
1,1-Dichloroethene	Avg Resp		1.130	1.014	0.980	0.986	0.893	0.831			0.972	0.00	11	0-30			PASS
c-1,2-Dichloroethene	Avg Resp		0.690	0.645	0.669	0.670	0.662	0.638			0.662	0.00	3	0-15			PASS
t-1,2-Dichloroethene	Avg Resp		0.653	0.646	0.633	0.640	0.615	0.578			0.628	0.00	4	0-15			PASS
Acetonitrile	Avg Resp			0.448	0.404	0.382	0.377	0.354			0.393	0.00	9	0-15			PASS
1,2-Dichloropropane	Avg Resp		0.436	0.394	0.396	0.395	0.402	0.377			0.400	0.00	5	0-30			PASS
Acrolein	Avg Resp			0.086	0.089	0.091	0.083	0.081			0.086	0.00	5	0-15			PASS
Acrylonitrile	Avg Resp			0.214	0.216	0.209	0.205	0.206			0.210	0.00	2	0-15			PASS
1,3-Dichloropropane	Avg Resp		0.704	0.646	0.660	0.660	0.678	0.650			0.666	0.00	3	0-15			PASS
2,2-Dichloropropane	Avg Resp		0.891	0.716	0.716	0.665	0.731	0.794			0.752	0.00	11	0-15			PASS
Allyl Chloride	LR - Equal		0.464	0.340	0.277	0.270	0.269	0.249							0.999	r>=0.990	PASS
1,1-Dichloropropene	Avg Resp		1.036	0.852	0.855	0.885	0.856	0.817			0.884	0.00	9	0-15			PASS
c-1,3-Dichloropropene	Avg Resp	0.418	0.482	0.483	0.497	0.548	0.601	0.596			0.518	0.00	13	0-15			PASS
t-1,3-Dichloropropene	Avg Resp	0.445	0.450	0.476	0.495	0.537	0.595	0.605			0.515	0.00	13	0-15			PASS
Ethylbenzene	Avg Resp		2.151	1.972	2.128	2.386	2.391	2.315			2.224	0.00	8	0-30			PASS
2-Hexanone	**Avg Resp**			0.112	0.130	0.148	0.161	0.178			0.146	**0.00**	**18**	**0-15**			**FAIL**

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INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

Work Order #: 13-11-0600
Instrument: GC/MS W
ICAL Batch ID: 131022IC
ICAL D/T Analyzed: 10/22/2013 12:36

Reviewed By:
D/T Reviewed:
Analyst: 510

Analyte	Calib. Model	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD Control Limit	r or r^2	r or r^2 Control Limit	Status
Isopropylbenzene	Avg Resp		1.843	1.823	2.063	2.334	2.412	2.364			2.140	0.00	12	0-15			PASS
p-Isopropyltoluene	Avg Resp		2.640	3.075	3.382	3.705	3.708	3.662			3.362	0.00	13	0-15			PASS
Methylene Chloride	Avg Resp			0.688	0.660	0.629	0.605	0.560			0.629	0.00	8	0-15			PASS
4-Methyl-2-Pentanone	Avg Resp			0.114	0.117	0.139	0.150	0.159			0.136	0.00	14	0-15			PASS
Naphthalene	**Avg Resp**			1.544	1.921	2.464	2.897	3.150			2.395	**0.00**	**28**	**0-15**			**FAIL**
n-Propylbenzene	Avg Resp		2.598	2.515	2.775	3.029	2.991	2.952			2.810	0.00	8	0-15			PASS
Styrene	Avg Resp		0.999	1.119	1.299	1.441	1.477	1.446			1.297	0.00	15	0-15			PASS
Chloroprene	Avg Resp			0.941	1.009	1.089	1.080	1.017			1.027	0.00	6	0-15			PASS
1,1,1,2-Tetrachloroethane	Avg Resp		0.341	0.330	0.343	0.374	0.399	0.403			0.365	0.00	9	0-15			PASS
1,1,2,2-Tetrachloroethane	Avg Resp		1.002	0.833	0.807	0.810	0.831	0.852			0.856	0.30	9	0-15			PASS
Tetrachloroethene	Avg Resp		0.704	0.666	0.663	0.620	0.617	0.613			0.647	0.00	6	0-15			PASS
Toluene	Avg Resp		1.962	1.779	1.838	1.890	1.897	1.809			1.863	0.00	4	0-30			PASS
1,2,3-Trichlorobenzene	Avg Resp		0.899	0.980	1.018	1.122	1.191	1.219			1.072	0.00	12	0-15			PASS
Ethyl Methacrylate	LR - Inv Sqr C			0.315	0.361	0.447	0.521	0.562							0.991	r^2>=0.990	PASS
1,2,4-Trichlorobenzene	Avg Resp		0.955	0.879	0.966	1.081	1.204	1.265			1.058	0.00	14	0-15			PASS
1,1,1-Trichloroethane	Avg Resp		0.984	0.994	0.989	0.983	0.964	0.927			0.974	0.00	3	0-15			PASS
Hexachloro-1,3-Butadiene	Avg Resp		0.964	0.804	0.779	0.788	0.781	0.788			0.817	0.00	9	0-15			PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp		0.804	0.701	0.676	0.698	0.610	0.553			0.674	0.00	13	0-15			PASS
1,1,2-Trichloroethane	Avg Resp		0.361	0.312	0.318	0.321	0.316	0.302			0.322	0.00	6	0-15			PASS
Iodomethane	Avg Resp			0.348	0.474	0.537	0.475	0.468			0.460	0.00	15	0-15			PASS
Trichloroethene	Avg Resp		0.455	0.455	0.451	0.452	0.446	0.418			0.446	0.00	3	0-15			PASS
Trichlorofluoromethane	Avg Resp		1.263	1.152	1.115	1.060	0.984	1.017			1.099	0.00	9	0-15			PASS
Isobutyl Alcohol	Avg Resp			0.030	0.024	0.025	0.024	0.028			0.026	0.00	11	0-15			PASS
1,2,3-Trichloropropane	Avg Resp		0.163	0.167	0.162	0.165	0.167	0.168			0.165	0.00	1	0-15			PASS
1,2,4-Trimethylbenzene	**Avg Resp**		2.108	2.707	3.006	3.287	3.313	3.265			2.948	**0.00**	**16**	**0-15**			**FAIL**
Methacrylonitrile	Avg Resp			0.332	0.342	0.354	0.357	0.363			0.350	0.00	4	0-15			PASS
Methyl Methacrylate	LR - Inv Sqr C			0.190	0.214	0.235	0.267	0.281							0.996	r^2>=0.990	PASS
1,3,5-Trimethylbenzene	**Avg Resp**		1.256	1.690	1.881	2.063	2.050	1.992			1.822	**0.00**	**17**	**0-15**			**FAIL**
Vinyl Acetate	Avg Resp			0.066	0.065	0.073	0.082	0.084			0.074	0.00	12	0-15			PASS
Vinyl Chloride	Avg Resp	0.766	0.743	0.752	0.738	0.700	0.653	0.729			0.726	0.00	5	0-30			PASS
p/m-Xylene	Avg Resp	2.304	1.689	1.656	1.795	1.936	1.913	1.869			1.880	0.00	11	0-15			PASS
o-Xylene	Avg Resp	1.900	1.513	1.512	1.677	1.853	1.878	1.838			1.739	0.00	10	0-15			PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp		1.622	1.454	1.469	1.535	1.627	1.604			1.552	0.00	5	0-15			PASS
t-1,4-Dichloro-2-Butene	Avg Resp		0.156	0.119	0.122	0.137	0.149	0.157			0.140	0.00	12	0-15			PASS
Tetrahydrofuran	Avg Resp			0.188	0.177	0.191	0.188	0.189			0.187	0.00	3	0-15			PASS
Propionitrile	Avg Resp			0.095	0.101	0.095	0.090	0.091			0.094	0.00	5	0-15			PASS
Tert-Butyl Alcohol (TBA)	Avg Resp		1.575	1.241	1.241	1.358	1.307	1.394			1.353	0.00	9	0-15			PASS
Diisopropyl Ether (DIPE)	Avg Resp		2.106	1.830	1.975	2.021	2.036	1.914			1.980	0.00	5	0-15			PASS
Ethyl-t-Butyl Ether (ETBE)	Avg Resp		1.529	1.448	1.499	1.617	1.718	1.717			1.588	0.00	7	0-15			PASS
Tert-Amyl-Methyl Ether (TAME)	Avg Resp		0.769	0.861	0.925	0.982	1.072	1.060			0.945	0.00	12	0-15			PASS
Ethanol	Avg Resp			0.216	0.203	0.199	0.171	0.167			0.191	0.00	11	0-15			PASS
Cyclohexane	Avg Resp			1.074	1.011	1.008	0.962	0.903			0.992	0.00	6	0-15			PASS
Thiophene	Avg Resp		0.703	0.830	0.844	0.858	0.873	0.827			0.822	0.00	7	0-15			PASS
1,4-Dioxane	Avg Resp			0.005	0.006	0.006	0.006	0.006			0.006	0.00	8	0-15			PASS
Hexane	Avg Resp		0.933	0.909	0.979	1.026	1.015	0.953			0.969	0.00	5	0-15			PASS
2,2,4-Trimethyl Pentane	Avg Resp		1.573	1.664	1.835	1.955	1.945	1.834			1.801	0.00	9	0-15			PASS

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INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

Work Order #: 13-11-0600
Instrument: GC/MS W
ICAL Batch ID: 131022IC
ICAL D/T Analyzed: 10/22/2013 12:36

Reviewed By:
D/T Reviewed:
Analyst: 510

Analyte	Calib. Model	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD Control Limit	r or r^2	r or r^2 Control Limit	Status
1,3-Butadiene	Avg Resp		0.570	0.531	0.511	0.507	0.489	0.439			0.508	0.00	9	0-15			PASS
Isopropanol	Avg Resp			0.022	0.022	0.020	0.019	0.019			0.020	0.00	8	0-15			PASS

Data Files:

Level #	D/T Analyzed	Data File
1	10/22/2013 12:36	W:\GCMS_W_DATA\2013\131022\22OCT005.D\22OCT005.rr
2	10/22/2013 13:06	W:\GCMS_W_DATA\2013\131022\22OCT006.D\22OCT006.rr
3	10/22/2013 13:36	W:\GCMS_W_DATA\2013\131022\22OCT007.D\22OCT007.rr
4	10/22/2013 14:05	W:\GCMS_W_DATA\2013\131022\22OCT008.D\22OCT008.rr
5	10/22/2013 14:35	W:\GCMS_W_DATA\2013\131022\22OCT009.D\22OCT009.rr
6	10/22/2013 15:05	W:\GCMS_W_DATA\2013\131022\22OCT010.D\22OCT010.rr
7	10/22/2013 15:35	W:\GCMS_W_DATA\2013\131022\22OCT011.D\22OCT011.rr

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INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

ICV WORK ORDER: 099-15-001-11061-4410
INSTRUMENT NAME: GC/MS W
INITIAL BATCH: 131022IC
INITIAL DATE ANALYZED: 10/22/13 12:36

ANALYST: 510
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 10/22/13 16:11

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
Acetone	LR - Equal				50.00	46.408	7	0-20	PASS
Benzene	Avg Resp	0.00	1.761	1.698			4	0-20	PASS
Bromobenzene	Avg Resp	0.00	0.531	0.532			0	0-20	PASS
Bromochloromethane	Avg Resp	0.00	0.317	0.284			10	0-20	PASS
Bromodichloromethane	Avg Resp	0.00	0.516	0.513			1	0-20	PASS
Bromoform	Avg Resp	0.10	0.305	0.348			-14	0-20	PASS
Bromomethane	**Avg Resp**	**0.00**	**0.314**	**0.433**			**-38**	0-20	**FAIL**
2-Butanone	Avg Resp	0.00	0.302	0.309			-2	0-20	PASS
n-Butylbenzene	Avg Resp	0.00	3.139	3.573			-14	0-20	PASS
sec-Butylbenzene	Avg Resp	0.00	4.019	4.282			-7	0-20	PASS
tert-Butylbenzene	Avg Resp	0.00	0.729	0.788			-8	0-20	PASS
Diethyl Ether	LR - Equal				50.00	44.847	10	0-20	PASS
Carbon Disulfide	LR - Equal				50.00	44.471	11	0-20	PASS
Carbon Tetrachloride	Avg Resp	0.00	0.735	0.786			-7	0-20	PASS
Chlorobenzene	Avg Resp	0.30	1.257	1.181			6	0-20	PASS
Chloroethane	Avg Resp	0.00	0.500	0.465			7	0-20	PASS
2-Chloroethyl Vinyl Ether	Avg Resp	0.00	0.393	0.381			3	0-20	PASS
Chloroform	Avg Resp	0.00	1.163	1.088			6	0-20	PASS
Chloromethane	**Avg Resp**	**0.10**	**0.594**	**0.718**			**-21**	0-20	**FAIL**
2-Chlorotoluene	Avg Resp	0.00	1.578	1.524			3	0-20	PASS
4-Chlorotoluene	Avg Resp	0.00	3.010	2.994			1	0-20	PASS
Dibromochloromethane	Avg Resp	0.00	0.331	0.346			-5	0-20	PASS
1,2-Dibromo-3-Chloropropane	Avg Resp	0.00	0.158	0.171			-8	0-20	PASS
1,2-Dibromoethane	Avg Resp	0.00	0.337	0.337			0	0-20	PASS
Dibromomethane	Avg Resp	0.00	0.221	0.216			2	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.646	1.583			4	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.754	1.694			3	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.846	1.830			1	0-20	PASS
Dichlorodifluoromethane	Avg Resp	0.00	0.947	1.049			-11	0-20	PASS
1,1-Dichloroethane	Avg Resp	0.10	1.192	1.070			10	0-20	PASS
1,2-Dichloroethane	Avg Resp	0.00	0.613	0.573			6	0-20	PASS
1,1-Dichloroethene	Avg Resp	0.00	0.972	0.873			10	0-20	PASS
c-1,2-Dichloroethene	Avg Resp	0.00	0.662	0.658			1	0-20	PASS
t-1,2-Dichloroethene	Avg Resp	0.00	0.628	0.621			1	0-20	PASS
Acetonitrile	Avg Resp	0.00	0.393	0.379			4	0-20	PASS
1,2-Dichloropropane	Avg Resp	0.00	0.400	0.382			5	0-20	PASS
Acrolein	**Avg Resp**	**0.00**	**0.086**	**0.122**			**-41**	0-20	**FAIL**
Acrylonitrile	Avg Resp	0.00	0.210	0.203			4	0-20	PASS
1,3-Dichloropropane	Avg Resp	0.00	0.666	0.636			5	0-20	PASS
2,2-Dichloropropane	Avg Resp	0.00	0.752	0.760			-1	0-20	PASS
Allyl Chloride	LR - Equal				50.00	51.380	-3	0-20	PASS
1,1-Dichloropropene	Avg Resp	0.00	0.884	0.881			0	0-20	PASS

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INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

ICV WORK ORDER: 099-15-001-11061-4410
INSTRUMENT NAME: GC/MS W
INITIAL BATCH: 131022IC
INITIAL DATE ANALYZED: 10/22/13 12:36

ANALYST: 510
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 10/22/13 16:11

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
c-1,3-Dichloropropene	Avg Resp	0.00	0.518	0.570			-10	0-20	PASS
t-1,3-Dichloropropene	Avg Resp	0.00	0.515	0.529			-3	0-20	PASS
Ethylbenzene	Avg Resp	0.00	2.224	2.325			-5	0-20	PASS
2-Hexanone	Avg Resp	0.00	0.146	0.158			-9	0-20	PASS
Isopropylbenzene	Avg Resp	0.00	2.140	2.187			-2	0-20	PASS
p-Isopropyltoluene	Avg Resp	0.00	3.362	3.528			-5	0-20	PASS
Methylene Chloride	Avg Resp	0.00	0.629	0.598			5	0-20	PASS
4-Methyl-2-Pentanone	Avg Resp	0.00	0.136	0.148			-9	0-20	PASS
Naphthalene	Avg Resp	0.00	2.395	2.786			-16	0-20	PASS
n-Propylbenzene	Avg Resp	0.00	2.810	2.712			3	0-20	PASS
Styrene	Avg Resp	0.00	1.297	1.390			-7	0-20	PASS
Chloroprene	Avg Resp	0.00	1.027	1.117			-9	0-20	PASS
1,1,1,2-Tetrachloroethane	Avg Resp	0.00	0.365	0.393			-8	0-20	PASS
1,1,2,2-Tetrachloroethane	Avg Resp	0.30	0.856	0.844			1	0-20	PASS
Tetrachloroethene	Avg Resp	0.00	0.647	0.599			7	0-20	PASS
Toluene	Avg Resp	0.00	1.863	1.841			1	0-20	PASS
1,2,3-Trichlorobenzene	Avg Resp	0.00	1.072	1.197			-12	0-20	PASS
Ethyl Methacrylate	LR - Inv Sqr Conc				50.00	44.247	12	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	1.058	1.154			-9	0-20	PASS
1,1,1-Trichloroethane	Avg Resp	0.00	0.974	1.004			-3	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.817	0.833			-2	0-20	PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp	0.00	0.674	0.602			11	0-20	PASS
1,1,2-Trichloroethane	Avg Resp	0.00	0.322	0.303			6	0-20	PASS
Iodomethane	Avg Resp	0.00	0.460	0.466			-1	0-20	PASS
Trichloroethene	Avg Resp	0.00	0.446	0.440			1	0-20	PASS
Trichlorofluoromethane	Avg Resp	0.00	1.099	1.094			0	0-20	PASS
Isobutyl Alcohol	Avg Resp	0.00	0.026	0.026			0	0-20	PASS
1,2,3-Trichloropropane	Avg Resp	0.00	0.165	0.159			4	0-20	PASS
1,2,4-Trimethylbenzene	Avg Resp	0.00	2.948	3.358			-14	0-20	PASS
Methacrylonitrile	Avg Resp	0.00	0.350	0.335			4	0-20	PASS
Methyl Methacrylate	LR - Inv Sqr Conc				50.00	53.383	-7	0-20	PASS
1,3,5-Trimethylbenzene	Avg Resp	0.00	1.822	2.060			-13	0-20	PASS
Vinyl Acetate	**Avg Resp**	**0.00**	**0.074**	**0.094**			**-26**	0-20	**FAIL**
Vinyl Chloride	Avg Resp	0.00	0.726	0.776			-7	0-20	PASS
p/m-Xylene	Avg Resp	0.00	1.880	1.816			3	0-20	PASS
o-Xylene	Avg Resp	0.00	1.739	1.720			1	0-20	PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp	0.00	1.552	1.568			-1	0-20	PASS
t-1,4-Dichloro-2-Butene	**Avg Resp**	**0.00**	**0.140**	**0.099**			**30**	0-20	**FAIL**
Tetrahydrofuran	Avg Resp	0.00	0.187	0.183			2	0-20	PASS
Propionitrile	Avg Resp	0.00	0.094	0.095			0	0-20	PASS
Tert-Butyl Alcohol (TBA)	Avg Resp	0.00	1.353	1.276			6	0-20	PASS
Diisopropyl Ether (DIPE)	Avg Resp	0.00	1.980	1.972			0	0-20	PASS

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INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

ICV WORK ORDER: 099-15-001-11061-4410
INSTRUMENT NAME: GC/MS W
INITIAL BATCH: 131022IC
INITIAL DATE ANALYZED: 10/22/13 12:36

ANALYST: 510
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 10/22/13 16:11

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
Ethyl-t-Butyl Ether (ETBE)	Avg Resp	0.00	1.588	1.673			-5	0-20	PASS
Tert-Amyl-Methyl Ether (TAME)	Avg Resp	0.00	0.945	1.011			-7	0-20	PASS
Ethanol	Avg Resp	0.00	0.191	0.167			13	0-20	PASS
Cyclohexane	Avg Resp	0.00	0.992	1.010			-2	0-20	PASS
Thiophene	Avg Resp	0.00	0.822	0.832			-1	0-20	PASS
1,4-Dioxane	Avg Resp	0.00	0.006	0.006			-4	0-20	PASS
Hexane	Avg Resp	0.00	0.969	1.009			-4	0-20	PASS
2,2,4-Trimethyl Pentane	Avg Resp	0.00	1.801	1.922			-7	0-20	PASS
1,3-Butadiene	Avg Resp	0.00	0.508	0.455			10	0-20	PASS
Isopropanol	Avg Resp	0.00	0.020	0.020			0	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_W_DATA\2013\131022\22OCT012.D\22OCT012.rr

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Response Factor Report GCMS W

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 131022.M
Title : EPA 8260B/8260C
Last Update : Thu Oct 31 17:27:02 2013
Response Via : Initial Calibration

Calibration Files
0.5 =22OCT005.D 1 =22OCT006.D 10 =22OCT007.D 20 =22OCT008.D 50 =22OCT009.D 100 =22OCT010.D 200 =22OCT011.D

		Compound	0.5	1	10	20	50	100	200	Avg	%RSD
1)	I	Tert-Butyl Alcohol-d9			---ISTD---						
2)	T	Ethanol			0.216	0.203	0.199	0.171	0.167	0.191	11
3)	T	Tert-Butyl Alcohol (TBA)		1.575	1.241	1.241	1.358	1.307	1.394	1.353	9
4)	I	Pentafluorobenzene			---ISTD---						
5)	T	Dichlorodifluoromethane		0.988	1.011	1.001	0.921	0.874	0.885	0.947	6
6)	P	Chloromethane		0.545	0.503	0.531	0.552	0.650	0.786	0.594	18
7)	CCC	Vinyl Chloride	0.766	0.743	0.752	0.738	0.700	0.653	0.729	0.726	5
8)	T	Bromomethane			0.314	0.269	0.309	0.374	0.305	0.314	12
9)	T	Chloroethane		0.566	0.554	0.544	0.407	0.450	0.482	0.500	13
10)	T	1,3-Butadiene		0.570	0.531	0.511	0.507	0.489	0.439	0.508	9
11)	T	Trichlorofluoromethane		1.263	1.152	1.115	1.060	0.984	1.017	1.099	9
12)	T	Diethyl Ether		0.543	0.358	0.333	0.324	0.327	0.306	0.365	24
13)	T	Acetone			0.106	0.088	0.080	0.067	0.064	0.081#	21
14)	T	Iodomethane			0.348	0.474	0.537	0.475	0.468	0.460	15
15)	CCC	1,1-Dichloroethene		1.130	1.014	0.980	0.986	0.893	0.831	0.972	11
16)	T	1,1,2-Trichloro-1,2,2-Trif...		0.804	0.701	0.676	0.698	0.610	0.553	0.674	13
17)	T	Isopropanol			0.022	0.022	0.020	0.019	0.019	0.020#	8
18)	T	Carbon Disulfide		2.883	2.316	2.256	2.182	1.869	1.888	2.233	17
19)	T	Acetonitrile			0.448	0.404	0.382	0.377	0.354	0.393	9
20)	T	Acrylonitrile			0.214	0.216	0.209	0.205	0.206	0.210	2
21)	T	Allyl Chloride		0.464	0.340	0.277	0.270	0.269	0.249	0.312	26
22)	T	Acrolein			0.086	0.089	0.091	0.083	0.081	0.086#	5
23)	T	Methylene Chloride			0.688	0.660	0.629	0.605	0.560	0.629	8
24)	T	t-1,2-Dichloroethene		0.653	0.646	0.633	0.640	0.615	0.578	0.628	4
25)	T	Isobutyl Alcohol			0.030	0.024	0.025	0.024	0.028	0.026#	11
26)	T	Methyl-t-Butyl Ether (MTBE)		1.622	1.454	1.469	1.535	1.627	1.604	1.552	5
27)	T	Hexane		0.933	0.909	0.979	1.026	1.015	0.953	0.969	5
28)	P	1,1-Dichloroethane		1.418	1.263	1.221	1.164	1.086	0.997	1.192	12
29)	T	Vinyl Acetate			0.066	0.065	0.073	0.082	0.084	0.074#	12
30)	T	Diisopropyl Ether (DIPE)		2.106	1.830	1.975	2.021	2.036	1.914	1.980	5
31)	T	Chloroprene			0.941	1.009	1.089	1.080	1.017	1.027	6
32)	T	Ethyl-t-Butyl Ether (ETBE)		1.529	1.448	1.499	1.617	1.718	1.717	1.588	7
33)	T	c-1,2-Dichloroethene		0.690	0.645	0.669	0.670	0.662	0.638	0.662	3
34)	T	2,2-Dichloropropane		0.891	0.716	0.716	0.665	0.731	0.794	0.752	11
35)	T	2-Butanone			0.298	0.307	0.299	0.299	0.306	0.302	2
36)	T	Propionitrile			0.095	0.101	0.095	0.090	0.091	0.094#	5
37)	T	Methacrylonitrile			0.332	0.342	0.354	0.357	0.363	0.350	4
38)	T	Bromochloromethane		0.368	0.367	0.341	0.302	0.270	0.254	0.317	15
39)	T	Tetrahydrofuran			0.188	0.177	0.191	0.188	0.189	0.187	3
40)	CCC	Chloroform		1.300	1.206	1.195	1.147	1.106	1.023	1.163	8
41)	S	Dibromofluoromethane	0.509	0.509	0.491	0.473	0.449	0.436	0.431	0.471	7
42)	T	1,1,1-Trichloroethane		0.984	0.994	0.989	0.983	0.964	0.927	0.974	3
43)	T	Cyclohexane			1.074	1.011	1.008	0.962	0.903	0.992	6

Response Factor Report GCMS W

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 131022.M

44)	T	1,1-Dichloropropene		1.036	0.852	0.855	0.885	0.856	0.817	0.884	9
45)	T	Carbon Tetrachloride	0.701	0.799	0.708	0.713	0.742	0.740	0.742	0.735	5
46)	S	1,2-Dichloroethane-d4	0.682	0.660	0.636	0.592	0.564	0.566	0.546	0.607	9
47)	I	1,4-Difluorobenzene			----------ISTD----------						
48)	T	Benzene	1.773	1.860	1.741	1.765	1.791	1.756	1.644	1.761	4
49)	T	1,2-Dichloroethane	0.679	0.649	0.613	0.595	0.589	0.596	0.570	0.613	6
50)	T	Tert-Amyl-Methyl Ether (TAME)		0.769	0.861	0.925	0.982	1.072	1.060	0.945	12
51)	T	Thiophene		0.703	0.830	0.844	0.858	0.873	0.827	0.822	7
52)	T	2,2,4-Trimethyl Pentane		1.573	1.664	1.835	1.955	1.945	1.834	1.801	9
53)	T	Trichloroethene		0.455	0.455	0.451	0.452	0.446	0.418	0.446	3
54)	CCC	1,2-Dichloropropane		0.436	0.394	0.396	0.395	0.402	0.377	0.400	5
55)	T	Dibromomethane		0.249	0.222	0.233	0.221	0.221	0.185	0.221	10
56)	T	Methyl Methacrylate			0.190	0.214	0.235	0.267	0.281	0.237	16
57)	T	1,4-Dioxane			0.005	0.006	0.006	0.006	0.006	0.006#	8
58)	T	Bromodichloromethane		0.484	0.498	0.505	0.520	0.548	0.540	0.516	5
59)	T	2-Chloroethyl Vinyl Ether			0.394	0.396	0.395	0.401	0.377	0.393	2
60)	T	c-1,3-Dichloropropene	0.418	0.482	0.483	0.497	0.548	0.601	0.596	0.518	13
61)	S	Toluene-d8	1.228	1.244	1.222	1.224	1.233	1.260	1.237	1.235	1
62)	CCC	Toluene		1.962	1.779	1.838	1.890	1.897	1.809	1.863	4
63)	T	4-Methyl-2-Pentanone			0.114	0.117	0.139	0.150	0.159	0.136	14
64)	I	Chlorobenzene-d5			----------ISTD----------						
65)	T	t-1,3-Dichloropropene	0.445	0.450	0.476	0.495	0.537	0.595	0.605	0.515	13
66)	T	Ethyl Methacrylate			0.315	0.361	0.447	0.521	0.562	0.441	24
67)	T	1,1,2-Trichloroethane		0.361	0.312	0.318	0.321	0.316	0.302	0.322	6
68)	T	Tetrachloroethene		0.704	0.666	0.663	0.620	0.617	0.613	0.647	6
69)	T	1,3-Dichloropropane		0.704	0.646	0.660	0.660	0.678	0.650	0.666	3
70)	T	2-Hexanone			0.112	0.130	0.148	0.161	0.178	0.146	18
71)	T	Dibromochloromethane		0.293	0.289	0.309	0.338	0.370	0.388	0.331	12
72)	T	1,2-Dibromoethane		0.294	0.332	0.340	0.344	0.357	0.353	0.337	7
73)	P	Chlorobenzene		1.344	1.246	1.233	1.263	1.253	1.202	1.257	4
74)	T	1,1,1,2-Tetrachloroethane		0.341	0.330	0.343	0.374	0.399	0.403	0.365	9
75)	CCC	Ethylbenzene		2.151	1.972	2.128	2.386	2.391	2.315	2.224	8
76)	T	p/m-Xylene	2.304	1.689	1.656	1.795	1.936	1.913	1.869	1.880	11
77)	T	o-Xylene	1.900	1.513	1.512	1.677	1.853	1.878	1.838	1.739	10
78)	T	Styrene		0.999	1.119	1.299	1.441	1.477	1.446	1.297	15
79)	T	Isopropylbenzene		1.843	1.823	2.063	2.334	2.412	2.364	2.140	12
80)	S	1,4-Bromofluorobenzene	0.449	0.452	0.497	0.508	0.519	0.524	0.537	0.498	7
81)	T	1,2,3-Trichloropropane		0.163	0.167	0.162	0.165	0.167	0.168	0.165	1
82)	T	Bromobenzene		0.546	0.492	0.516	0.546	0.547	0.539	0.531	4
83)	T	n-Propylbenzene		2.598	2.515	2.775	3.029	2.991	2.952	2.810	8
84)	T	t-1,4-Dichloro-2-Butene		0.156	0.119	0.122	0.137	0.149	0.157	0.140	12
85)	T	2-Chlorotoluene		1.553	1.451	1.565	1.648	1.645	1.607	1.578	5
86)	T	1,3,5-Trimethylbenzene		1.256	1.690	1.881	2.063	2.050	1.992	1.822	17
87)	I	1,4-Dichlorobenzen...			----------ISTD----------						
88)	P	Bromoform		0.319	0.236	0.246	0.298	0.342	0.388	0.305	19
89)	P	1,1,2,2-Tetrachloroethane		1.002	0.833	0.807	0.810	0.831	0.852	0.856	9
90)	T	4-Chlorotoluene		2.726	2.821	3.042	3.196	3.173	3.102	3.010	6
91)	T	1,2,4-Trimethylbenzene		2.108	2.707	3.006	3.287	3.313	3.265	2.948	16
92)	T	tert-Butylbenzene		0.669	0.634	0.720	0.791	0.794	0.768	0.729	9
93)	T	p-Isopropyltoluene		2.640	3.075	3.382	3.705	3.708	3.662	3.362	13
94)	T	sec-Butylbenzene		3.242	3.680	3.986	4.386	4.425	4.396	4.019	12

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Method Path : C:\MSDCHEM\1\METHODS\
Method File : 131022.M

95)	T	1,3-Dichlorobenzene	1.866	1.677	1.714	1.762	1.764	1.743	1.754	4
96)	T	1,4-Dichlorobenzene	2.138	1.804	1.777	1.804	1.793	1.759	1.846	8
97)	T	1,2-Dichlorobenzene	1.799	1.577	1.580	1.615	1.651	1.656	1.646	5
98)	T	n-Butylbenzene	2.310	2.670	3.168	3.527	3.598	3.562	3.139	17
99)	T	1,2-Dibromo-3-Chloropropane		0.138	0.144	0.151	0.166	0.191	0.158	13
100)	T	1,2,4-Trichlorobenzene	0.955	0.879	0.966	1.081	1.204	1.265	1.058	14
101)	T	Hexachloro-1,3-Butadiene	0.964	0.804	0.779	0.788	0.781	0.788	0.817	9
102)	T	Naphthalene		1.544	1.921	2.464	2.897	3.150	2.395	28
103)	T	1,2,3-Trichlorobenzene	0.899	0.980	1.018	1.122	1.191	1.219	1.072	12

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : W:\GCMS W DATA\2013\131022\22OCT012.D Vial: 12
Acq On : 22 Oct 2013 4:11 pm Operator: 486
Sample : ICV V101713B/V101813B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 15:47:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 16:19:42 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Tert-Butyl Alcohol-d9	1.000	1.000	0	127	0.01
2	T	Ethanol	0.191	0.167	13	106	0.00
3	T	Tert-Butyl Alcohol (TBA)	1.353	1.276	6	119	0.01
4	I	Pentafluorobenzene	1.000	1.000	0	104	0.00
5	T	Dichlorodifluoromethane	0.947	1.049	-11	118	0.00
6	P	Chloromethane	0.594	0.718	-21#	135	0.00
7	CCC	Vinyl Chloride	0.726	0.776	-7	115	0.00
8	T	Bromomethane	0.314	0.433	-38#	145	0.00
9	T	Chloroethane	0.500	0.465	7	119	0.00
10	T	1,3-Butadiene	0.508	0.455	10	93	0.00
11	T	Trichlorofluoromethane	1.099	1.094	0	107	0.00
12	T	Diethyl Ether	0.365	0.289	21#	92	0.00
13	T	Acetone	0.081	0.069#	15	89	0.00
14	T	Iodomethane	0.460	0.466	-1	90	0.00
15	CCC	1,1-Dichloroethene	0.972	0.873	10	92	0.00
16	T	1,1,2-Trichloro-1,2,2-Trifl	0.674	0.602	11	89	0.00
17	T	Isopropanol	0.020	0.020#	0	104	0.00
18	T	Carbon Disulfide	2.233	1.776	20	84	0.00
19	T	Acetonitrile	0.393	0.379	4	103	0.00
20	T	Acrylonitrile	0.210	0.203	3	100	0.00
21	T	Allyl Chloride	0.312	0.272	13	104	0.00
22	T	Acrolein	0.086	0.122	-42#	139	0.00
23	T	Methylene Chloride	0.629	0.598	5	98	0.00
24	T	t-1,2-Dichloroethene	0.628	0.621	1	101	0.00
25	T	Isobutyl Alcohol	0.026	0.026#	0	110	0.01
26	T	Methyl-t-Butyl Ether (MTBE)	1.552	1.568	-1	106	0.00
27	T	Hexane	0.969	1.009	-4	102	0.00
28	P	1,1-Dichloroethane	1.192	1.070	10	95	0.00
29	T	Vinyl Acetate	0.074	0.094#	-27#	133	0.00
30	T	Diisopropyl Ether (DIPE)	1.980	1.972	0	101	0.00
31	T	Chloroprene	1.027	1.117	-9	106	0.00
32	T	Ethyl-t-Butyl Ether (ETBE)	1.588	1.673	-5	107	0.00
33	T	c-1,2-Dichloroethene	0.662	0.658	1	102	0.00
34	T	2,2-Dichloropropane	0.752	0.760	-1	119	0.00
35	T	2-Butanone	0.302	0.309	-2	107	0.00
36	T	Propionitrile	0.094	0.095#	-1	103	0.00
37	T	Methacrylonitrile	0.350	0.335	4	98	0.00
38	T	Bromochloromethane	0.317	0.284	10	98	0.00
39	T	Tetrahydrofuran	0.187	0.183	2	99	0.00
40	CCC	Chloroform	1.163	1.088	6	98	0.00
41	S	Dibromofluoromethane	0.471	0.432	8	100	0.00
42	T	1,1,1-Trichloroethane	0.974	1.004	-3	106	0.00
43	T	Cyclohexane	0.992	1.010	-2	104	0.00
44	T	1,1-Dichloropropene	0.884	0.881	0	103	0.00
45	T	Carbon Tetrachloride	0.735	0.786	-7	110	0.00
46	S	1,2-Dichloroethane-d4	0.607	0.549	10	101	0.00
47	I	1,4-Difluorobenzene	1.000	1.000	0	103	0.00
48	T	Benzene	1.761	1.698	4	98	0.00
49	T	1,2-Dichloroethane	0.613	0.573	7	100	0.00
50	T	Tert-Amyl-Methyl Ether (TAM	0.945	1.011	-7	106	0.00
51	T	Thiophene	0.822	0.832	-1	100	0.00
52	T	2,2,4-Trimethyl Pentane	1.801	1.922	-7	101	0.00

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Evaluate Continuing Calibration Report

Data File : W:\GCMS W DATA\2013\131022\22OCT012.D Vial: 12
Acq On : 22 Oct 2013 4:11 pm Operator: 486
Sample : ICV V101713B/V101813B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 15:47:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 16:19:42 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53	T	Trichloroethene	0.446	0.440	1	100	0.00
54	CCC	1,2-Dichloropropane	0.400	0.382	5	99	0.00
55	T	Dibromomethane	0.221	0.216	2	101	0.00
56	T	Methyl Methacrylate	0.237	0.271	-14	118	0.00
57	T	1,4-Dioxane	0.006	0.006#	0	102	0.00
58	T	Bromodichloromethane	0.516	0.513	1	102	0.00
59	T	2-Chloroethyl Vinyl Ether	0.393	0.381	3	99	0.00
60	T	c-1,3-Dichloropropene	0.518	0.570	-10	107	0.00
61	S	Toluene-d8	1.235	1.211	2	101	0.00
62	CCC	Toluene	1.863	1.841	1	100	0.00
63	T	4-Methyl-2-Pentanone	0.136	0.148	-9	109	0.00
64	I	Chlorobenzene-d5	1.000	1.000	0	103	0.00
65	T	t-1,3-Dichloropropene	0.515	0.529	-3	101	0.00
66	T	Ethyl Methacrylate	0.441	0.422	4	97	0.00
67	T	1,1,2-Trichloroethane	0.322	0.303	6	97	0.00
68	T	Tetrachloroethene	0.647	0.599	7	99	0.00
69	T	1,3-Dichloropropane	0.666	0.636	5	99	0.00
70	T	2-Hexanone	0.146	0.158	-8	110	0.00
71	T	Dibromochloromethane	0.331	0.346	-5	105	0.00
72	T	1,2-Dibromoethane	0.337	0.337	0	101	0.00
73	P	Chlorobenzene	1.257	1.181	6	96	0.00
74	T	1,1,1,2-Tetrachloroethane	0.365	0.393	-8	108	0.00
75	CCC	Ethylbenzene	2.224	2.325	-5	100	0.00
76	T	p/m-Xylene	1.880	1.816	3	96	0.00
77	T	o-Xylene	1.739	1.720	1	95	0.00
78	T	Styrene	1.297	1.390	-7	99	0.00
79	T	Isopropylbenzene	2.140	2.187	-2	96	0.00
80	S	1,4-Bromofluorobenzene	0.498	0.517	-4	102	0.00
81	T	1,2,3-Trichloropropane	0.165	0.159	4	99	0.00
82	T	Bromobenzene	0.531	0.532	0	100	0.00
83	T	n-Propylbenzene	2.810	2.712	3	92	0.00
84	T	t-1,4-Dichloro-2-Butene	0.140	0.099#	29#	74	0.00
85	T	2-Chlorotoluene	1.578	1.524	3	95	0.00
86	T	1,3,5-Trimethylbenzene	1.822	2.060	-13	103	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	100	0.00
88	P	Bromoform	0.305	0.348	-14	116	0.00
89	P	1,1,2,2-Tetrachloroethane	0.856	0.844	1	104	0.00
90	T	4-Chlorotoluene	3.010	2.994	1	93	0.00
91	T	1,2,4-Trimethylbenzene	2.948	3.358	-14	102	0.00
92	T	tert-Butylbenzene	0.729	0.788	-8	99	0.00
93	T	p-Isopropyltoluene	3.362	3.528	-5	95	0.00
94	T	sec-Butylbenzene	4.019	4.282	-7	97	0.00
95	T	1,3-Dichlorobenzene	1.754	1.694	3	96	0.00
96	T	1,4-Dichlorobenzene	1.846	1.830	1	101	0.00
97	T	1,2-Dichlorobenzene	1.646	1.583	4	98	0.00
98	T	n-Butylbenzene	3.139	3.573	-14	101	0.00
99	T	1,2-Dibromo-3-Chloropropane	0.158	0.171	-8	113	0.00
100	T	1,2,4-Trichlorobenzene	1.058	1.154	-9	106	0.00
101	T	Hexachloro-1,3-Butadiene	0.817	0.833	-2	105	0.00
102	T	Naphthalene	2.395	2.786	-16	113	0.00
103	T	1,2,3-Trichlorobenzene	1.072	1.197	-12	106	0.00

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Evaluate Continuing Calibration Report

Data File : W:\GCMS W DATA\2013\131022\22OCT012.D Vial: 12
Acq On : 22 Oct 2013 4:11 pm Operator: 486
Sample : ICV V101713B/V101813B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 15:47:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 16:19:42 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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Calibration Plot Report

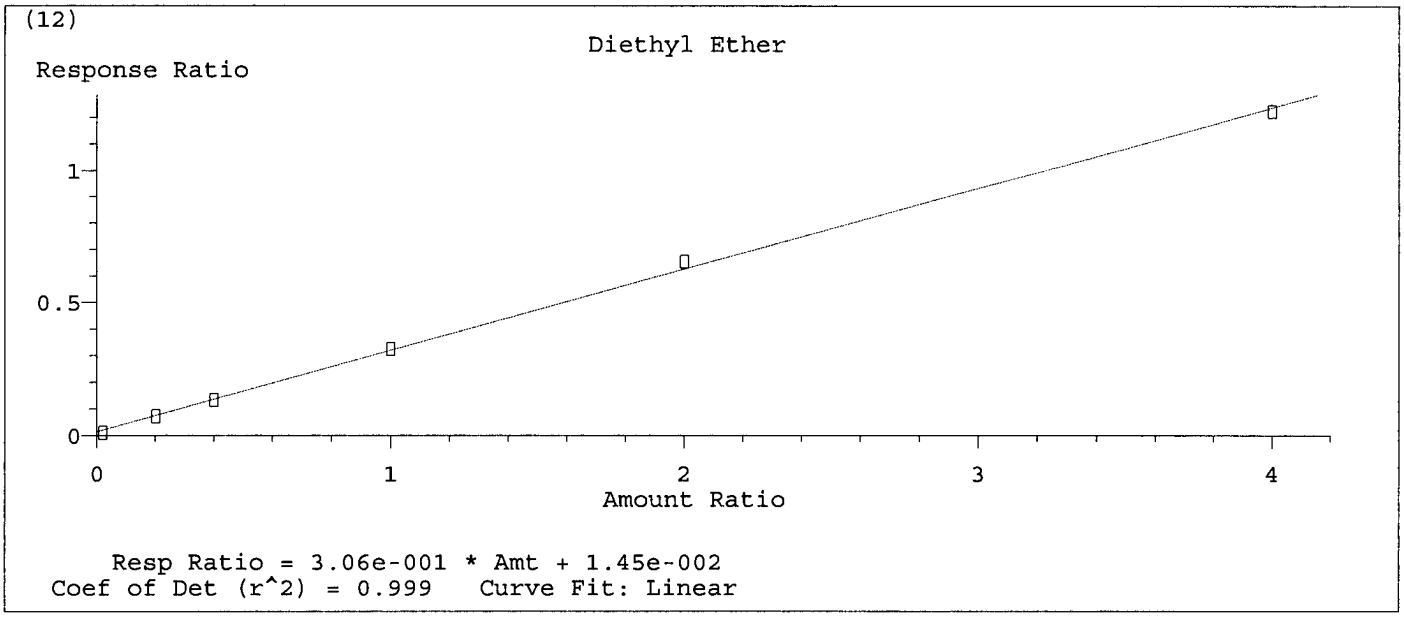
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 12:59:38 2014

Level	Aqc Time	Data File
0.5	22 Oct 2013 12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013 1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013 1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013 2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013 2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013 3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013 3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.305725 A + 0.014468, r^2 = 0.999000

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
0.5	2766	447864		50.000	0.00618	
1	4760	438627	1.000	50.000	0.01085	0.02000
10	33240	463784	10.000	50.000	0.07167	0.20000
20	64224	482721	20.000	50.000	0.13305	0.40000
50	167890	517513	50.000	50.000	0.32442	1.00000
100	365325	559360	100.000	50.000	0.65311	2.00000
200	700448	572575	200.000	50.000	1.22333	4.00000



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Calibration Plot Report

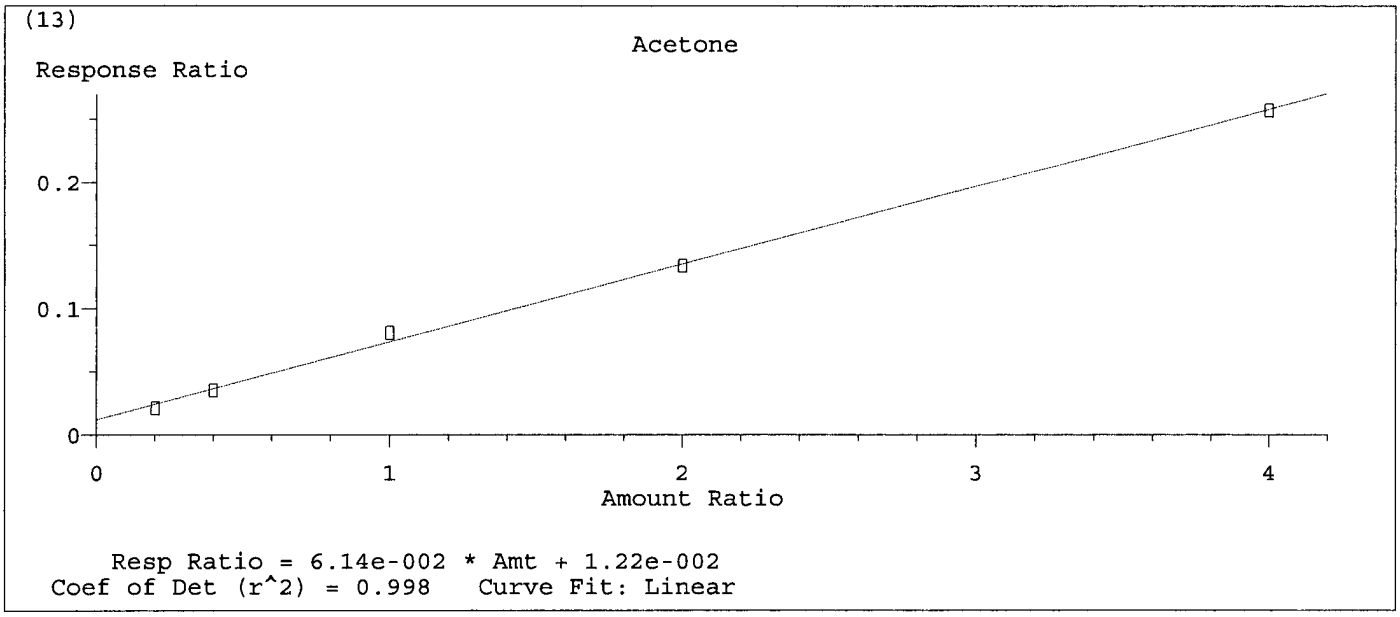
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 12:59:50 2014

Level	Aqc Time	Data File
0.5	22 Oct 2013 12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013 1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013 1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013 2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013 2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013 3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013 3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.061378 A + 0.012177, r^2 = 0.998255

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
0.5	1986	447864		50.000	0.00443	
1	1942	438627		50.000	0.00443	
10	9824	463784	10.000	50.000	0.02118	0.20000
20	17031	482721	20.000	50.000	0.03528	0.40000
50	41647	517513	50.000	50.000	0.08048	1.00000
100	74601	559360	100.000	50.000	0.13337	2.00000
200	147180	572575	200.000	50.000	0.25705	4.00000



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Calibration Plot Report

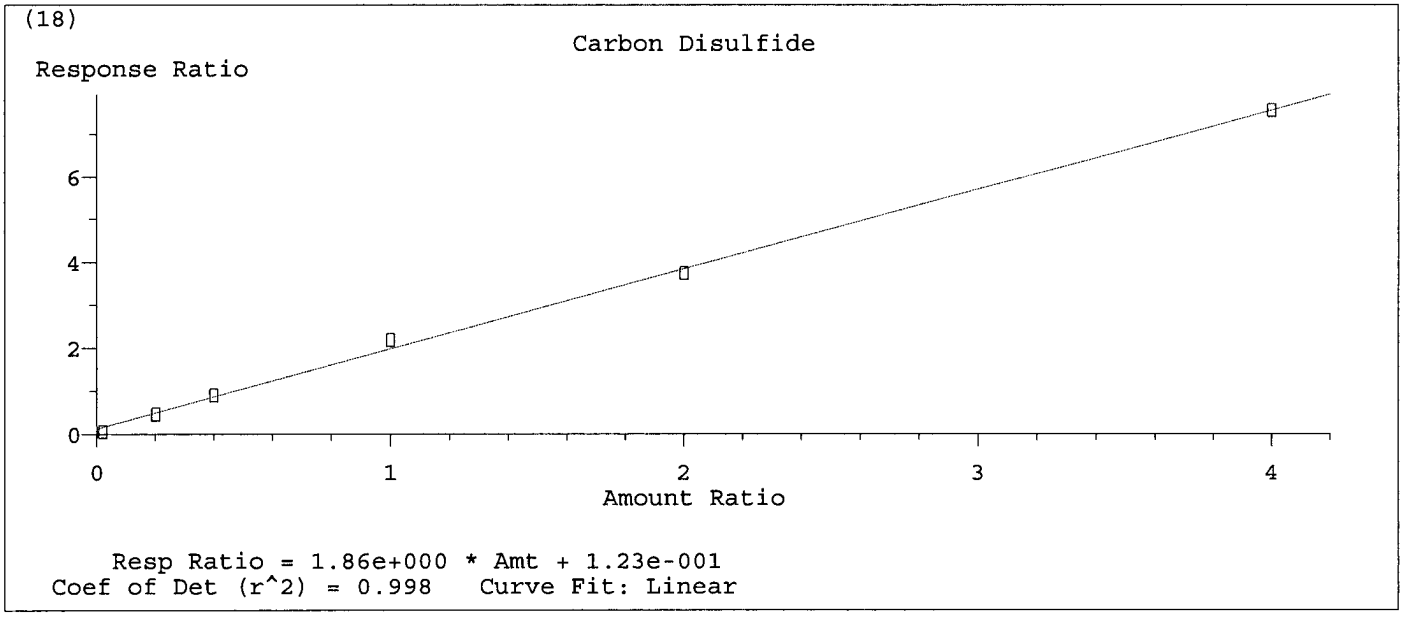
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 13:00:03 2014

Level	Aqc Time		Data File
0.5	22 Oct 2013	12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013	1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013	1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013	2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013	2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013	3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013	3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 1.857904 A + 0.123424, r^2 = 0.998408

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
0.5	13424	447864		50.000	0.02997	
1	25294	438627	1.000	50.000	0.05767	0.02000
10	214819	463784	10.000	50.000	0.46319	0.20000
20	435543	482721	20.000	50.000	0.90227	0.40000
50	1129408	517513	50.000	50.000	2.18238	1.00000
100	2091273	559360	100.000	50.000	3.73869	2.00000
200	4324996	572575	200.000	50.000	7.55359	4.00000



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Calibration Plot Report

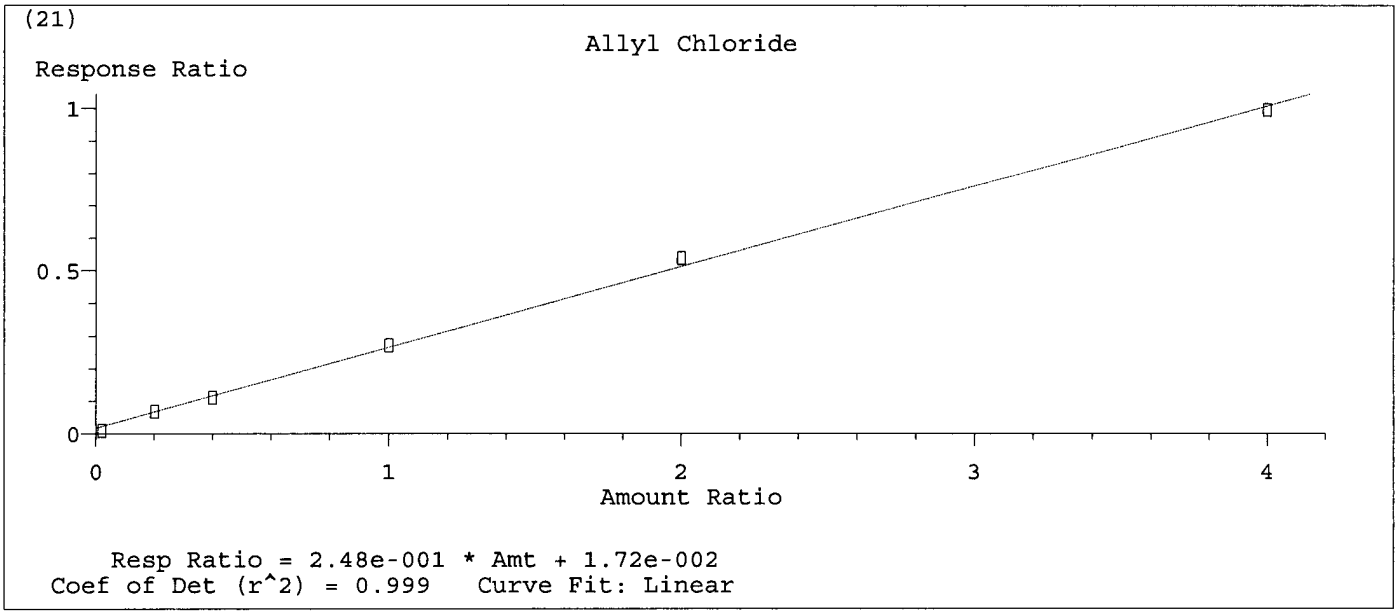
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 13:00:29 2014

Level	Aqc Time		Data File
0.5	22 Oct 2013	12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013	1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013	1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013	2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013	2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013	3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013	3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.247802 A + 0.017199, r^2 = 0.998551

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
0.5	2150	447864		50.000	0.00480	
1	4073	438627	1.000	50.000	0.00929	0.02000
10	31525	463784	10.000	50.000	0.06797	0.20000
20	53513	482721	20.000	50.000	0.11086	0.40000
50	139957	517513	50.000	50.000	0.27044	1.00000
100	300811	559360	100.000	50.000	0.53778	2.00000
200	569774	572575	200.000	50.000	0.99511	4.00000



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Calibration Plot Report

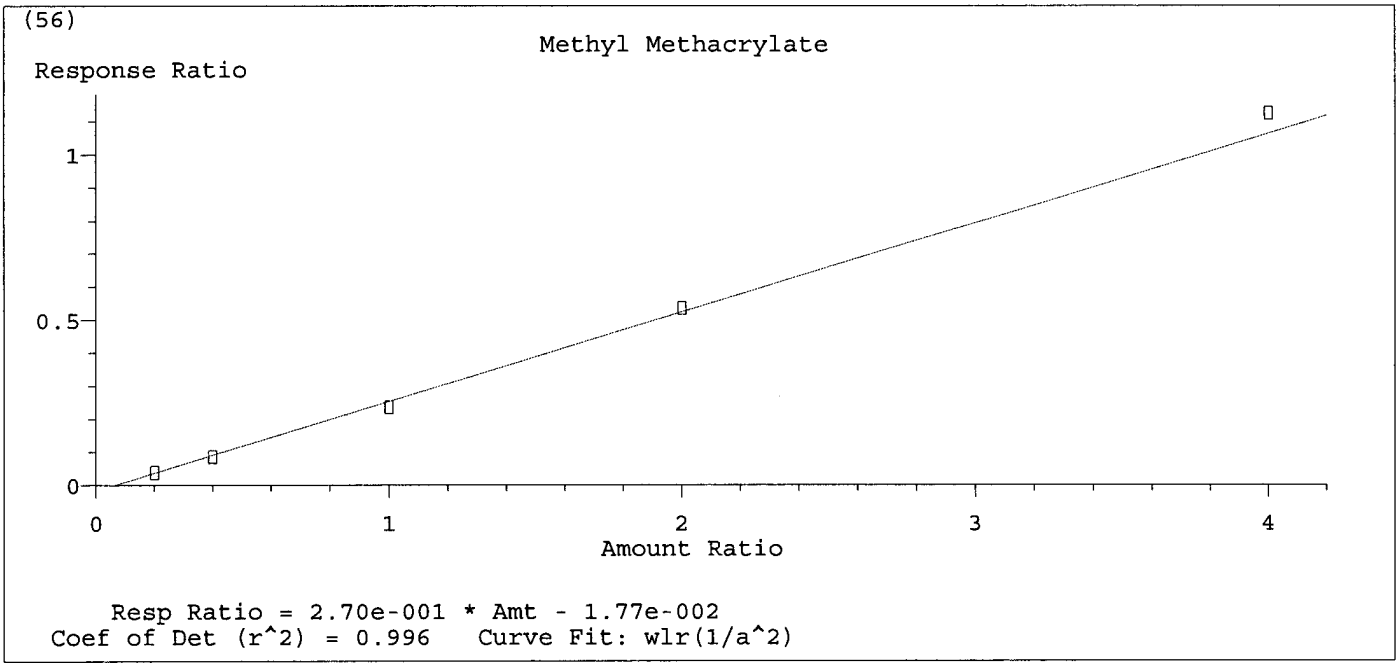
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 13:00:54 2014

Level	Aqc Time		Data File
0.5	22 Oct 2013	12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013	1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013	1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013	2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013	2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013	3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013	3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.270079 A + -0.017664, r^2 = 0.995543

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
10	27739	730559	10.000	50.000	0.03797	0.20000
20	63483	741778	20.000	50.000	0.08558	0.40000
50	181986	773704	50.000	50.000	0.23521	1.00000
100	434502	814038	100.000	50.000	0.53376	2.00000
200	944040	839569	200.000	50.000	1.12443	4.00000



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Calibration Plot Report

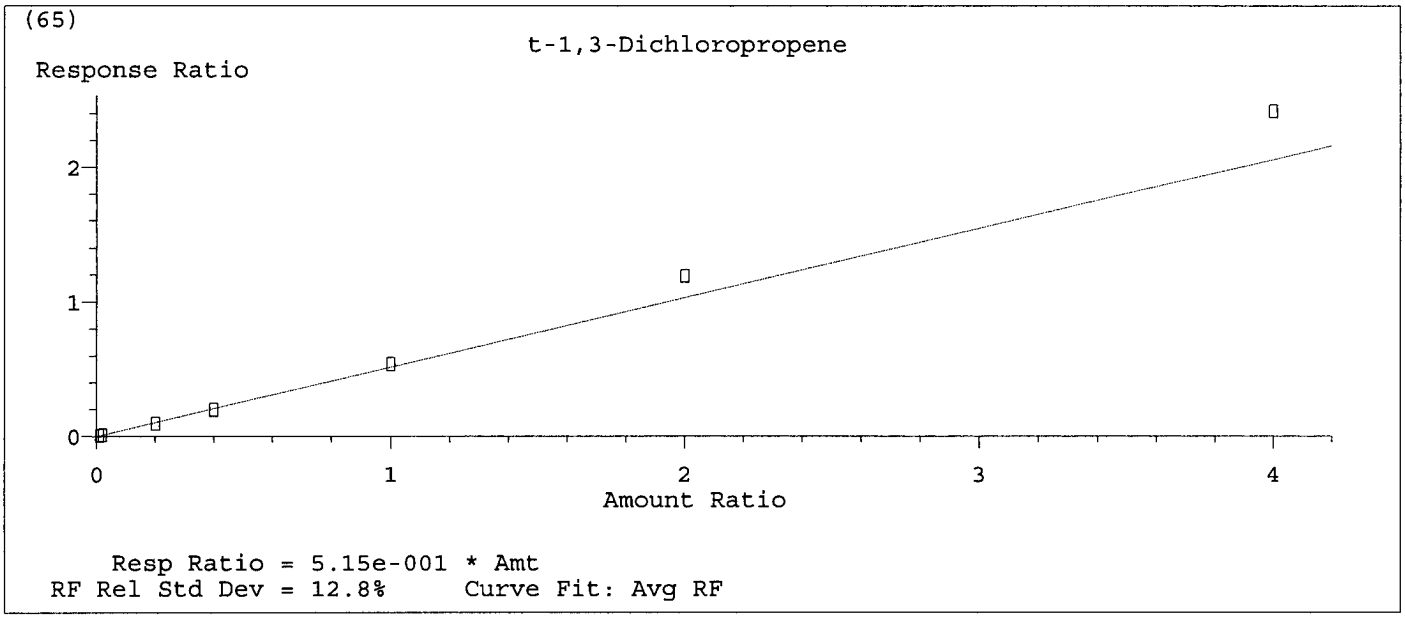
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 13:01:14 2014

Level	Aqc Time	Data File
0.5	22 Oct 2013 12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013 1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013 1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013 2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013 2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013 3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013 3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.514719 A + 0.000000, rsd% = 12.796486

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
0.5	2982	669757	0.500	50.000	0.00445	0.01000
1	5876	652574	1.000	50.000	0.00900	0.02000
10	63101	663235	10.000	50.000	0.09514	0.20000
20	132959	672122	20.000	50.000	0.19782	0.40000
50	375607	699167	50.000	50.000	0.53722	1.00000
100	895559	752089	100.000	50.000	1.19076	2.00000
200	1887476	780311	200.000	50.000	2.41888	4.00000



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Calibration Plot Report

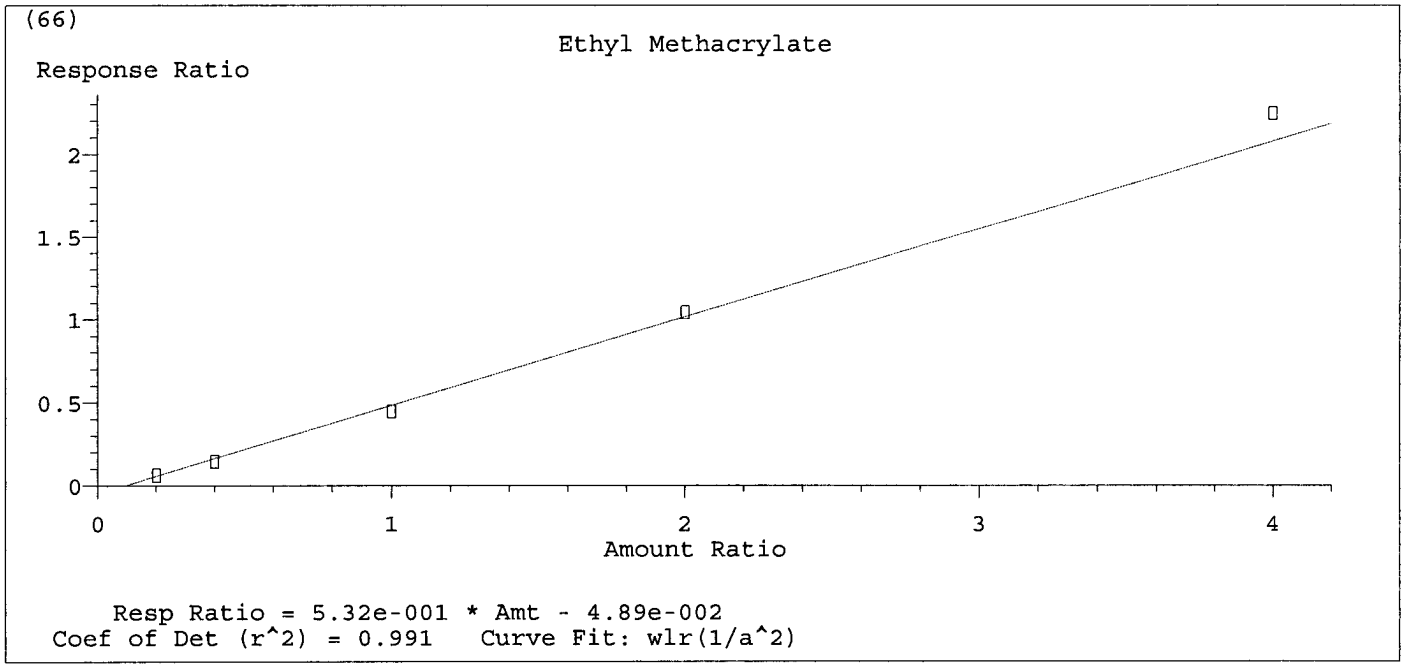
Method: C:\MSDCHEM\1\METHODS\131022.M
CalUpdate: Thu Oct 31 17:27:02 2013
Instrument: GCMS W
Date: Fri Jan 17 14:57:05 2014

Level	Aqc Time	Data File
0.5	22 Oct 2013 12:36 pm	W:\GCMS W DATA\2013\131022\22OCT005.D
1	22 Oct 2013 1:06 pm	W:\GCMS W DATA\2013\131022\22OCT006.D
10	22 Oct 2013 1:36 pm	W:\GCMS W DATA\2013\131022\22OCT007.D
20	22 Oct 2013 2:05 pm	W:\GCMS W DATA\2013\131022\22OCT008.D
50	22 Oct 2013 2:35 pm	W:\GCMS W DATA\2013\131022\22OCT009.D
100	22 Oct 2013 3:05 pm	W:\GCMS W DATA\2013\131022\22OCT010.D
200	22 Oct 2013 3:35 pm	W:\GCMS_W_DATA\2013\131022\22OCT011.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.531616 A + -0.048872, r^2 = 0.990687

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
10	41774	663235	10.000	50.000	0.06299	0.20000
20	97135	672122	20.000	50.000	0.14452	0.40000
50	312797	699167	50.000	50.000	0.44739	1.00000
100	783308	752089	100.000	50.000	1.04151	2.00000
200	1753045	780311	200.000	50.000	2.24660	4.00000



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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT005.D Vial: 5
Acq On : 22 Oct 2013 12:36 pm Operator: 486
Sample : BFB/0.5PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:03:07 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:59 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.777	65	122398	250.00	ug/l	0.01
4) Pentafluorobenzene	6.204	168	447864	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	704844	50.00	ug/l	0.00
64) Chlorobenzene-d5	10.712	117	669757	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	353254	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.096	113	228056	52.98	ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 105.96%			
46) 1,2-Dichloroethane-d4	6.526	65	305447	55.63	ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 111.26%			
61) Toluene-d8	8.959	98	865559	49.89	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.78%			
80) 1,4-Bromofluorobenzene	12.160	95	300491	45.41	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.82%			

Target Compounds						Qvalue
2) Ethanol	2.764	45	619	6.14	ug/l	94
3) Tert-Butyl Alcohol (TBA)	3.902	59	2060	3.11	ug/l	75
5) Dichlorodifluoromethane	1.583	85	4140	0.47	ug/l	86
6) Chloromethane	1.741	50	5336	1.12	ug/l	96
7) Vinyl Chloride	1.839	62	3429	0.52	ug/l	94
8) Bromomethane	2.144	94	3870	1.45	ug/l	95
9) Chloroethane	2.242	64	22513	3.84	ug/l	98
10) 1,3-Butadiene	1.882	54	2939	0.62	ug/l #	79
11) Trichlorofluoromethane	2.508	101	5479	0.53	ug/l	98
12) Diethyl Ether	2.824	45	2766	0.79	ug/l #	70
13) Acetone	3.140	58	1986	2.42	ug/l	97
14) Iodomethane	3.232	142	1600	0.39	ug/l	74
15) 1,1-Dichloroethene	3.058	61	5726	0.62	ug/l	73
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	3149	0.49	ug/l	91
17) Isopropanol	2.715	45	1844	9.64	ug/l	99
18) Carbon Disulfide	3.314	76	13424	0.62	ug/l	99
19) Acetonitrile	3.494	41	5180	1.41	ug/l	92
20) Acrylonitrile	3.994	53	1343	0.70	ug/l #	51
21) Allyl Chloride	3.499	76	2150	0.71	ug/l #	50
22) Acrolein	2.944	56	1547	1.94	ug/l	93
23) Methylene Chloride	3.646	84	3843	0.65	ug/l	84
24) t-1,2-Dichloroethene	4.049	96	3605	0.63	ug/l	66
25) Isobutyl Alcohol	6.596	43	1180	4.98	ug/l #	43
26) Methyl-t-Butyl Ether (...	4.098	73	9328	0.69	ug/l	92
27) Hexane	4.495	57	3718	0.43	ug/l	76
28) 1,1-Dichloroethane	4.648	63	5670	0.50	ug/l	96
29) Vinyl Acetate	4.773	86	389	0.64	ug/l #	1
30) Diisopropyl Ether (DIPE)	4.822	45	12239	0.69	ug/l	100
31) Chloroprene	4.784	53	4340	0.48	ug/l	60
32) Ethyl-t-Butyl Ether (E...	5.328	59	7569	0.55	ug/l	89
33) c-1,2-Dichloroethene	5.453	96	3097	0.52	ug/l	96
34) 2,2-Dichloropropane	5.459	77	4176	0.62	ug/l	89
35) 2-Butanone	5.508	43	3202	1.19	ug/l	76
36) Propionitrile	5.524	54	180	0.21	ug/l	64
37) Methacrylonitrile	5.780	41	2790	0.91	ug/l #	44
38) Bromochloromethane	5.758	130	1928	0.62	ug/l	98
39) Tetrahydrofuran	5.889	42	1083	0.65	ug/l	76
40) Chloroform	5.889	83	6213	0.57	ug/l	85
42) 1,1,1-Trichloroethane	6.134	97	4885	0.55	ug/l	81
43) Cyclohexane	6.210	84	16226	1.76	ug/l #	52
44) 1,1-Dichloropropene	6.368	75	3974	0.49	ug/l	89

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT005.D Vial: 5
Acq On : 22 Oct 2013 12:36 pm Operator: 486
Sample : BFB/0.5PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:03:07 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:59 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
45) Carbon Tetrachloride	6.357	117	3139	0.47 ug/l	#	52
48) Benzene	6.613	78	12498	0.50 ug/l		96
49) 1,2-Dichloroethane	6.629	62	4785	0.56 ug/l		78
50) Tert-Amyl-Methyl Ether...	6.820	73	5620	0.45 ug/l		88
51) Thiophene	6.879	84	4486	0.39 ug/l		88
52) 2,2,4-Trimethyl Pentane	6.771	57	10270	0.41 ug/l		92
53) Trichloroethene	7.457	95	3055	0.48 ug/l		88
54) 1,2-Dichloropropane	7.707	63	2957	0.52 ug/l		72
55) Dibromomethane	7.838	93	1514	0.47 ug/l	#	75
56) Methyl Methacrylate	7.914	69	2351	0.78 ug/l	#	45
57) 1,4-Dioxane	7.941	88	336	4.24 ug/l		92
58) Bromodichloromethane	8.072	83	3808	0.54 ug/l	#	60
59) 2-Chloroethyl Vinyl Ether	7.707	63	2957	0.53 ug/l		86
60) c-1,3-Dichloropropene	8.616	75	2947	0.42 ug/l		74
62) Toluene	9.041	91	15599	0.59 ug/l		97
63) 4-Methyl-2-Pentanone	8.823	58	864	0.50 ug/l	#	32
65) t-1,3-Dichloropropene	9.307	75	2982	0.45 ug/l		65
66) Ethyl Methacrylate	9.460	69	2275	0.45 ug/l		92
67) 1,1,2-Trichloroethane	9.514	83	3103	0.71 ug/l	#	62
68) Tetrachloroethene	9.726	166	5068	0.57 ug/l		77
69) 1,3-Dichloropropane	9.721	76	4789	0.54 ug/l		99
70) 2-Hexanone	9.857	58	853	0.49 ug/l	#	44
71) Dibromochloromethane	9.993	129	1927	0.47 ug/l	#	62
72) 1,2-Dibromoethane	10.118	107	2224	0.51 ug/l		93
73) Chlorobenzene	10.744	112	8839	0.52 ug/l		92
74) 1,1,1,2-Tetrachloroethane	10.853	131	2188	0.47 ug/l		89
75) Ethylbenzene	10.902	91	20516	0.71 ug/l		93
76) p/m-Xylene	11.049	91	30869	1.30 ug/l		94
77) o-Xylene	11.528	91	12726	0.58 ug/l		99
78) Styrene	11.545	104	7701	0.47 ug/l		87
79) Isopropylbenzene	11.991	105	15077	0.56 ug/l		88
81) 1,2,3-Trichloropropane	12.378	110	1190	0.54 ug/l	#	82
82) Bromobenzene	12.339	156	4177	0.59 ug/l		78
83) n-Propylbenzene	12.497	91	21780	0.60 ug/l		95
84) t-1,4-Dichloro-2-Butene	12.410	53	625	0.35 ug/l	#	52
85) 2-Chlorotoluene	12.579	91	12613	0.61 ug/l		96
86) 1,3,5-Trimethylbenzene	12.720	105	8817	0.38 ug/l		91
88) Bromoform	11.751	173	1020	0.53 ug/l		68
89) 1,1,2,2-Tetrachloroethane	12.323	83	4313	0.71 ug/l		99
90) 4-Chlorotoluene	12.715	91	13509	0.65 ug/l		99
91) 1,2,4-Trimethylbenzene	13.183	105	8749	0.45 ug/l		90
92) tert-Butylbenzene	13.112	134	2444	0.49 ug/l	#	61
93) p-Isopropyltoluene	13.575	119	10022	0.44 ug/l		71
94) sec-Butylbenzene	13.390	105	13558	0.50 ug/l		98
95) 1,3-Dichlorobenzene	13.499	146	8077	0.65 ug/l		81
96) 1,4-Dichlorobenzene	13.613	146	9056	0.68 ug/l		97
97) 1,2-Dichlorobenzene	14.070	146	7755	0.67 ug/l		89
98) n-Butylbenzene	14.076	91	9297	0.45 ug/l		89
99) 1,2-Dibromo-3-Chloropr...	15.007	75	1004	0.98 ug/l		96
100) 1,2,4-Trichlorobenzene	16.063	180	3487	0.51 ug/l		87
101) Hexachloro-1,3-Butadiene	16.313	225	3667	0.62 ug/l		82
102) Naphthalene	16.362	128	6007	0.43 ug/l		92
103) 1,2,3-Trichlorobenzene	16.656	180	3995	0.56 ug/l	#	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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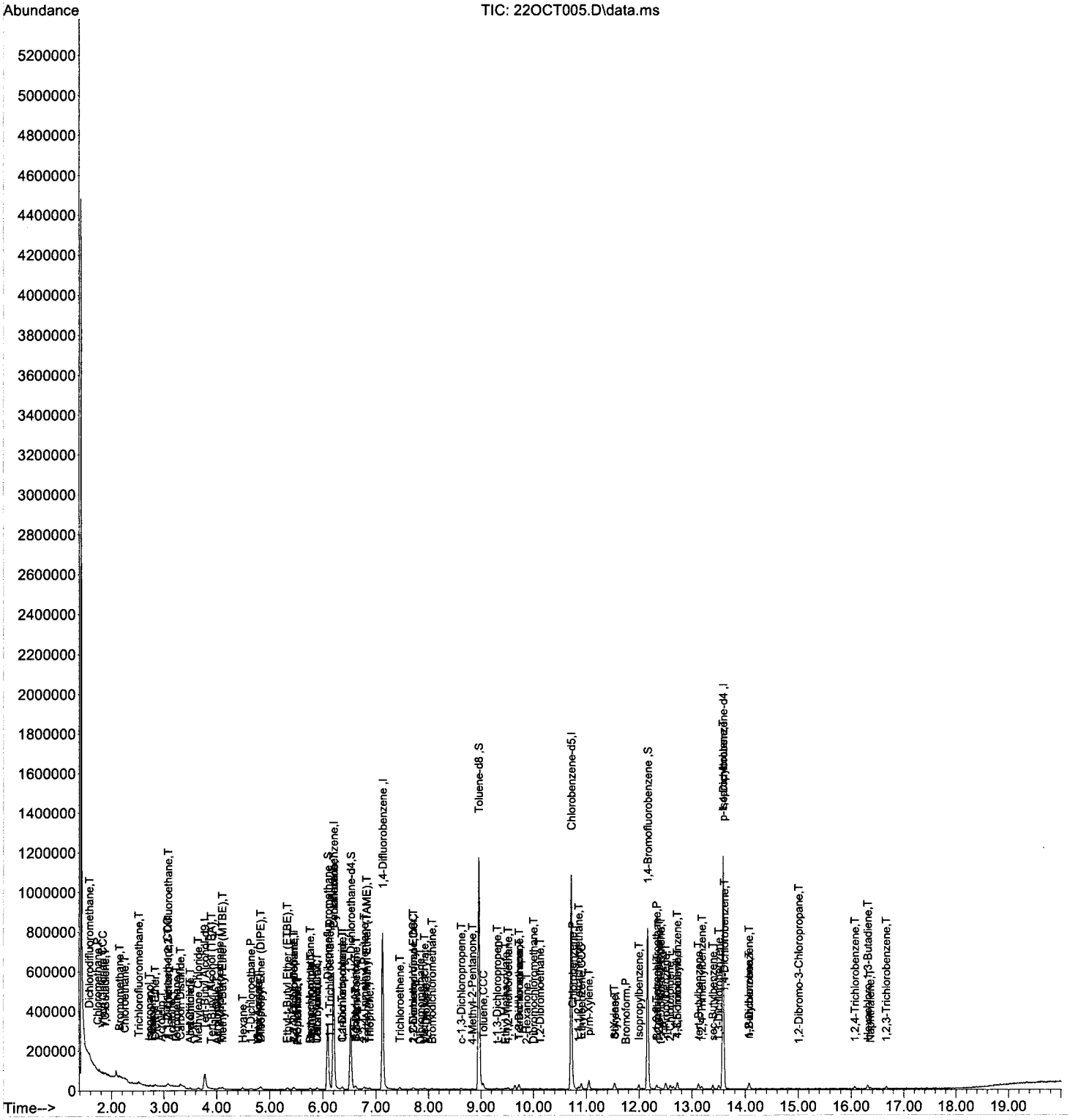
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT005.D Vial: 5
Acq On : 22 Oct 2013 12:36 pm Operator: 486
Sample : BFB/0.5PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:03:07 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:59 2013
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT006.D Vial: 6
Acq On : 22 Oct 2013 1:06 pm Operator: 486
Sample : 1PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:02:47 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:38 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.777	65	134626	250.00 ug/l	0.01
4) Pentafluorobenzene	6.205	168	438627	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	689841	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	652574	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	353500	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	223325	54.05 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 108.10%		
46) 1,2-Dichloroethane-d4	6.526	65	289420	55.23 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 110.46%		
61) Toluene-d8	8.959	98	858393	50.74 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.48%		
80) 1,4-Bromofluorobenzene	12.160	95	294649	44.43 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.86%		

Target Compounds					Qvalue
2) Ethanol	2.715	45	2969	26.75 ug/l	88
3) Tert-Butyl Alcohol (TBA)	3.886	59	4241	6.15 ug/l	70
5) Dichlorodifluoromethane	1.583	85	8666	1.01 ug/l	94
6) Chloromethane	1.746	50	4781	1.03 ug/l	84
7) Vinyl Chloride	1.839	62	6514	1.02 ug/l	94
8) Bromomethane	2.133	94	4351	1.67 ug/l	94
9) Chloroethane	2.242	64	4961	0.83 ug/l	100
10) 1,3-Butadiene	1.882	54	4997	1.10 ug/l #	73
11) Trichlorofluoromethane	2.508	101	11077	1.14 ug/l	98
12) Diethyl Ether	2.835	45	4760	1.60 ug/l #	65
13) Acetone	3.129	58	1942	2.42 ug/l #	77
14) Iodomethane	3.216	142	4174	1.05 ug/l	54
15) 1,1-Dichloroethene	3.058	61	9909	1.14 ug/l	90
16) 1,1,2-Trichloro-1,2,2-...	3.074	101	7051	1.16 ug/l	80
17) Isopropanol	2.715	45	2887	15.41 ug/l	88
18) Carbon Disulfide	3.309	76	25294	1.28 ug/l	98
19) Acetonitrile	3.494	41	7803	2.16 ug/l	93
20) Acrylonitrile	3.989	53	2572	1.38 ug/l	82
21) Allyl Chloride	3.499	76	4073	1.57 ug/l #	47
22) Acrolein	2.933	56	2833	3.63 ug/l	91
23) Methylene Chloride	3.646	84	6931	1.20 ug/l	79
24) t-1,2-Dichloroethene	4.060	96	5728	1.02 ug/l	81
25) Isobutyl Alcohol	6.596	43	2030	8.75 ug/l #	55
26) Methyl-t-Butyl Ether (...	4.109	73	14232	1.09 ug/l	84
27) Hexane	4.484	57	8188	0.96 ug/l	77
28) 1,1-Dichloroethane	4.642	63	12442	1.17 ug/l	96
29) Vinyl Acetate	4.762	86	527	0.89 ug/l #	1
30) Diisopropyl Ether (DIPE)	4.816	45	18476	1.08 ug/l	86
31) Chloroprene	4.789	53	8072	0.91 ug/l	70
32) Ethyl-t-Butyl Ether (E...	5.334	59	13413	1.01 ug/l	94
33) c-1,2-Dichloroethene	5.453	96	6049	1.04 ug/l	67
34) 2,2-Dichloropropane	5.453	77	7818	1.27 ug/l	98
35) 2-Butanone	5.508	43	4256	1.61 ug/l	60
36) Propionitrile	5.481	54	69	N.D.	
37) Methacrylonitrile	5.758	41	3737	1.24 ug/l	67
38) Bromochloromethane	5.764	130	3231	1.09 ug/l	90
39) Tetrahydrofuran	5.900	42	2475	1.52 ug/l	81
40) Chloroform	5.889	83	11404	1.10 ug/l	88
42) 1,1,1-Trichloroethane	6.139	97	8636	1.00 ug/l	90
43) Cyclohexane	6.210	84	19292	2.13 ug/l #	67
44) 1,1-Dichloropropene	6.357	75	9084	1.20 ug/l	88

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT006.D Vial: 6
Acq On : 22 Oct 2013 1:06 pm Operator: 486
Sample : 1PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:02:47 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:38 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.357	117	7008	1.11 ug/l	96
48) Benzene	6.613	78	25656	1.05 ug/l	95
49) 1,2-Dichloroethane	6.624	62	8961	1.08 ug/l	85
50) Tert-Amyl-Methyl Ether...	6.820	73	10605	0.83 ug/l	89
51) Thiophene	6.874	84	9700	0.83 ug/l	95
52) 2,2,4-Trimethyl Pentane	6.771	57	21696	0.87 ug/l	95
53) Trichloroethene	7.457	95	6279	1.01 ug/l	84
54) 1,2-Dichloropropane	7.712	63	6016	1.10 ug/l	93
55) Dibromomethane	7.848	93	3434	1.11 ug/l	79
56) Methyl Methacrylate	7.919	69	3842	1.31 ug/l	90
57) 1,4-Dioxane	7.903	88	51	0.66 ug/l #	17
58) Bromodichloromethane	8.055	83	6675	0.95 ug/l	87
59) 2-Chloroethyl Vinyl Ether	7.712	63	6016	1.10 ug/l	93
60) c-1,3-Dichloropropene	8.627	75	6649	0.95 ug/l	94
62) Toluene	9.035	91	27069	1.07 ug/l	87
63) 4-Methyl-2-Pentanone	8.828	58	1511	0.89 ug/l	60
65) t-1,3-Dichloropropene	9.302	75	5876	0.90 ug/l	91
66) Ethyl Methacrylate	9.460	69	3956	0.81 ug/l	93
67) 1,1,2-Trichloroethane	9.514	83	4717	1.14 ug/l	79
68) Tetrachloroethene	9.721	166	9192	1.08 ug/l	95
69) 1,3-Dichloropropane	9.716	76	9190	1.07 ug/l	94
70) 2-Hexanone	9.863	58	1178	0.70 ug/l	85
71) Dibromochloromethane	9.993	129	3820	0.94 ug/l	95
72) 1,2-Dibromoethane	10.118	107	3837	0.87 ug/l	91
73) Chlorobenzene	10.744	112	17541	1.08 ug/l	100
74) 1,1,1,2-Tetrachloroethane	10.848	131	4455	0.98 ug/l	79
75) Ethylbenzene	10.897	91	28072	0.99 ug/l	80
76) p/m-Xylene	11.044	91	44087	1.88 ug/l	97
77) o-Xylene	11.528	91	19748	0.90 ug/l	96
78) Styrene	11.539	104	13036	0.78 ug/l	91
79) Isopropylbenzene	11.991	105	24053	0.89 ug/l	89
81) 1,2,3-Trichloropropane	12.367	110	2132	0.99 ug/l #	76
82) Bromobenzene	12.334	156	7120	1.05 ug/l	92
83) n-Propylbenzene	12.497	91	33912	0.94 ug/l	99
84) t-1,4-Dichloro-2-Butene	12.405	53	2032	1.23 ug/l	89
85) 2-Chlorotoluene	12.584	91	20269	1.00 ug/l	94
86) 1,3,5-Trimethylbenzene	12.715	105	16396	0.67 ug/l	100
88) Bromoform	11.735	173	2257	1.23 ug/l	96
89) 1,1,2,2-Tetrachloroethane	12.323	83	7082	1.23 ug/l	94
90) 4-Chlorotoluene	12.715	91	19272	0.90 ug/l	94
91) 1,2,4-Trimethylbenzene	13.178	105	14906	0.70 ug/l	93
92) tert-Butylbenzene	13.118	134	4730	0.94 ug/l #	82
93) p-Isopropyltoluene	13.575	119	18665	0.78 ug/l	92
94) sec-Butylbenzene	13.390	105	22920	0.81 ug/l	98
95) 1,3-Dichlorobenzene	13.504	146	13190	1.09 ug/l	94
96) 1,4-Dichlorobenzene	13.613	146	15114	1.19 ug/l	87
97) 1,2-Dichlorobenzene	14.070	146	12716	1.13 ug/l	95
98) n-Butylbenzene	14.081	91	16335	0.74 ug/l	89
99) 1,2-Dibromo-3-Chloropr...	15.012	75	1256	1.23 ug/l	93
100) 1,2,4-Trichlorobenzene	16.063	180	6752	0.98 ug/l	90
101) Hexachloro-1,3-Butadiene	16.313	225	6812	1.22 ug/l	93
102) Naphthalene	16.357	128	10070	0.72 ug/l	99
103) 1,2,3-Trichlorobenzene	16.662	180	6359	0.86 ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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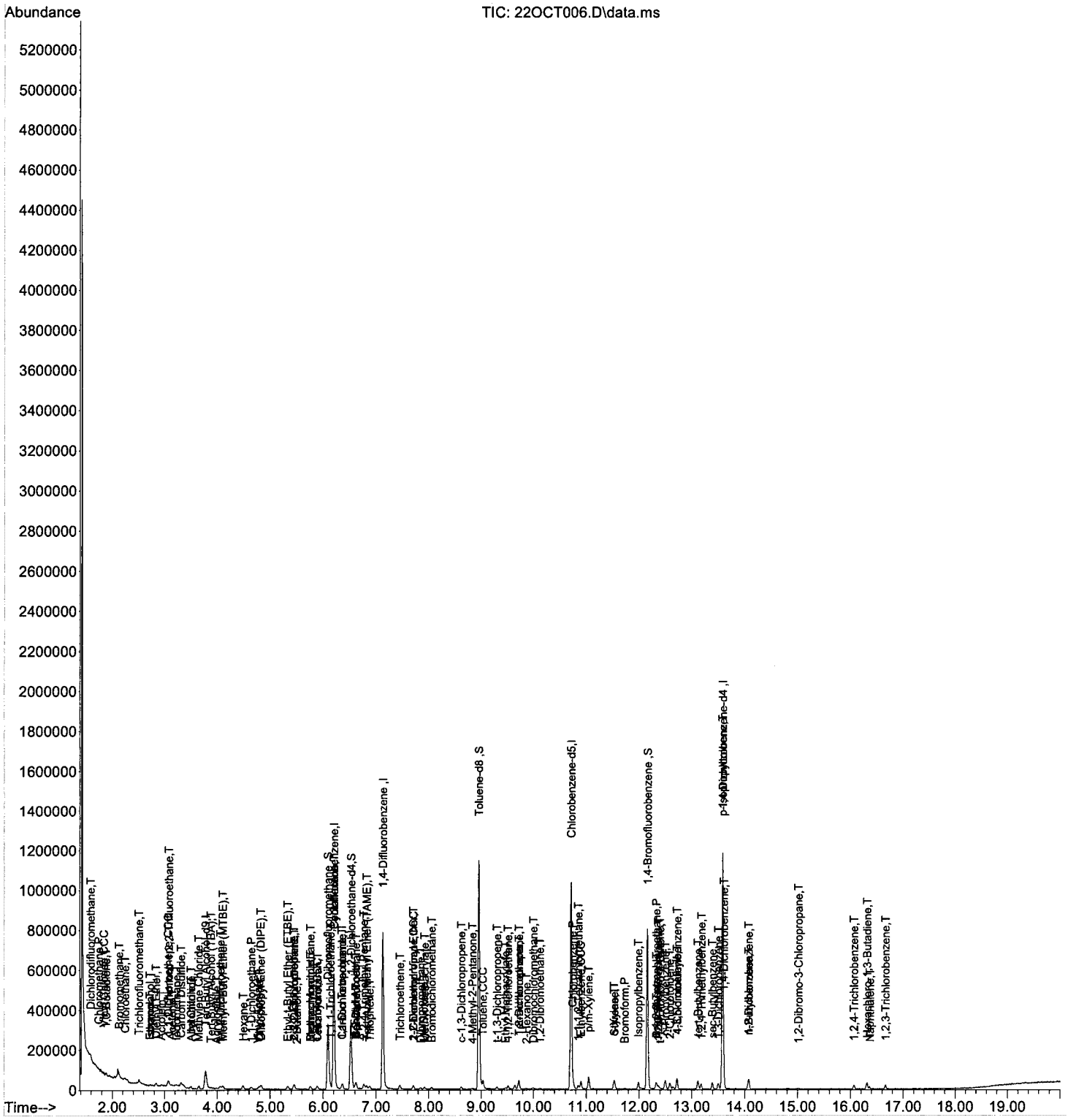
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT006.D Vial: 6
Acq On : 22 Oct 2013 1:06 pm Operator: 486
Sample : 1PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:02:47 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:38 2013
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT007.D Vial: 7
Acq On : 22 Oct 2013 1:36 pm Operator: 486
Sample : 10PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:46:00 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:19 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.777	65	117167	250.00 ug/l	0.01
4) Pentafluorobenzene	6.205	168	463784	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	730559	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	663235	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	409969	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	227721	53.25 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 106.50%		
46) 1,2-Dichloroethane-d4	6.520	65	295134	55.06 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 110.12%		
61) Toluene-d8	8.959	98	892681	49.75 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%		
80) 1,4-Bromofluorobenzene	12.160	95	329952	48.44 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.88%		

Target Compounds					Qvalue
2) Ethanol	2.721	45	10134	107.57 ug/l	82
3) Tert-Butyl Alcohol (TBA)	3.886	59	29086	47.76 ug/l	85
5) Dichlorodifluoromethane	1.583	85	93786	10.52 ug/l	98
6) Chloromethane	1.741	50	46676	9.30 ug/l	91
7) Vinyl Chloride	1.839	62	69717	10.46 ug/l	96
8) Bromomethane	2.149	94	29125	10.87 ug/l	90
9) Chloroethane	2.247	64	51342m	9.87 ug/l	
10) 1,3-Butadiene	1.877	54	49244	10.43 ug/l	95
11) Trichlorofluoromethane	2.509	101	106873	10.59 ug/l	100
12) Diethyl Ether	2.830	45	33240	10.91 ug/l	90
13) Acetone	3.124	58	9824	12.56 ug/l #	79
14) Iodomethane	3.227	142	64479	13.75 ug/l	99
15) 1,1-Dichloroethene	3.064	61	94028	10.31 ug/l	97
16) 1,1,2-Trichloro-1,2,2-...	3.086	101	65031	10.20 ug/l	90
17) Isopropanol	2.721	45	10278	52.88 ug/l	99
18) Carbon Disulfide	3.314	76	214819	10.44 ug/l	99
19) Acetonitrile	3.499	41	83041	22.78 ug/l	100
20) Acrylonitrile	3.984	53	19894	10.09 ug/l	88
21) Allyl Chloride	3.499	76	31525	12.41 ug/l	98
22) Acrolein	2.939	56	16031	19.19 ug/l	96
23) Methylene Chloride	3.652	84	63840	10.67 ug/l	95
24) t-1,2-Dichloroethene	4.049	96	59946	10.15 ug/l	93
25) Isobutyl Alcohol	6.591	43	5628	24.75 ug/l #	54
26) Methyl-t-Butyl Ether (...	4.098	73	134886	9.68 ug/l	97
27) Hexane	4.490	57	84361	9.08 ug/l	96
28) 1,1-Dichloroethane	4.648	63	117147	10.59 ug/l	98
29) Vinyl Acetate	4.768	86	6152	9.67 ug/l #	55
30) Diisopropyl Ether (DIPE)	4.827	45	169729	9.16 ug/l	96
31) Chloroprene	4.795	53	87258	8.97 ug/l	98
32) Ethyl-t-Butyl Ether (E...	5.328	59	134275	9.29 ug/l	92
33) c-1,2-Dichloroethene	5.453	96	59792	9.63 ug/l	99
34) 2,2-Dichloropropane	5.453	77	66449	10.38 ug/l	95
35) 2-Butanone	5.502	43	27674	9.85 ug/l	90
36) Propionitrile	5.535	54	8803	9.67 ug/l	88
37) Methacrylonitrile	5.758	41	30806	9.55 ug/l	100
38) Bromochloromethane	5.764	130	34009	11.40 ug/l	98
39) Tetrahydrofuran	5.878	42	17443	10.21 ug/l	86
40) Chloroform	5.889	83	111903	10.30 ug/l	97
42) 1,1,1-Trichloroethane	6.139	97	92243	10.08 ug/l	98
43) Cyclohexane	6.216	84	99590	10.63 ug/l	96
44) 1,1-Dichloropropene	6.357	75	79049	9.79 ug/l	89

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT007.D Vial: 7
Acq On : 22 Oct 2013 1:36 pm Operator: 486
Sample : 10PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:46:00 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:19 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.363	117	65682	9.73 ug/l	96
48) Benzene	6.613	78	254364	9.79 ug/l	99
49) 1,2-Dichloroethane	6.624	62	89532	10.35 ug/l	96
50) Tert-Amyl-Methyl Ether...	6.820	73	125817	9.03 ug/l	95
51) Thiophene	6.874	84	121201	9.75 ug/l	98
52) 2,2,4-Trimethyl Pentane	6.771	57	243097	8.78 ug/l	98
53) Trichloroethene	7.451	95	66547	10.09 ug/l	96
54) 1,2-Dichloropropane	7.707	63	57608	9.97 ug/l	100
55) Dibromomethane	7.843	93	32386	9.78 ug/l	94
56) Methyl Methacrylate	7.909	69	27739	8.45 ug/l	87
57) 1,4-Dioxane	7.925	88	7559	88.47 ug/l #	75
58) Bromodichloromethane	8.056	83	72808	9.72 ug/l	97
59) 2-Chloroethyl Vinyl Ether	7.707	63	57567	9.97 ug/l	88
60) c-1,3-Dichloropropene	8.622	75	70622	9.25 ug/l	98
62) Toluene	9.041	91	259993	9.55 ug/l	100
63) 4-Methyl-2-Pentanone	8.829	58	16722	8.93 ug/l	98
65) t-1,3-Dichloropropene	9.302	75	63101	9.22 ug/l	97
66) Ethyl Methacrylate	9.465	69	41774	7.79 ug/l	95
67) 1,1,2-Trichloroethane	9.514	83	41386	9.77 ug/l	94
68) Tetrachloroethene	9.721	166	88339	10.39 ug/l	95
69) 1,3-Dichloropropane	9.721	76	85746	9.79 ug/l	99
70) 2-Hexanone	9.852	58	14821	8.05 ug/l	88
71) Dibromochloromethane	9.988	129	38287	8.92 ug/l	99
72) 1,2-Dibromoethane	10.119	107	44094	9.72 ug/l	100
73) Chlorobenzene	10.745	112	165343	9.99 ug/l	96
74) 1,1,1,2-Tetrachloroethane	10.854	131	43798	9.21 ug/l	88
75) Ethylbenzene	10.897	91	261584	8.74 ug/l	94
76) p/m-Xylene	11.044	91	439387	17.76 ug/l	96
77) o-Xylene	11.529	91	200498	8.57 ug/l	95
78) Styrene	11.539	104	148440	8.17 ug/l	98
79) Isopropylbenzene	11.991	105	241864	8.29 ug/l	100
81) 1,2,3-Trichloropropane	12.372	110	22088	10.17 ug/l	99
82) Bromobenzene	12.340	156	65294	9.28 ug/l	99
83) n-Propylbenzene	12.497	91	333543	8.66 ug/l	99
84) t-1,4-Dichloro-2-Butene	12.399	53	15800	9.17 ug/l	87
85) 2-Chlorotoluene	12.585	91	192534	9.04 ug/l	99
86) 1,3,5-Trimethylbenzene	12.721	105	224205	8.57 ug/l	98
88) Bromoform	11.730	173	19338	8.67 ug/l	97
89) 1,1,2,2-Tetrachloroethane	12.323	83	68286	10.30 ug/l	93
90) 4-Chlorotoluene	12.721	91	231321	9.04 ug/l	97
91) 1,2,4-Trimethylbenzene	13.178	105	221936	8.60 ug/l	100
92) tert-Butylbenzene	13.118	134	51984	8.39 ug/l	90
93) p-Isopropyltoluene	13.575	119	252104	8.68 ug/l	96
94) sec-Butylbenzene	13.390	105	301741	8.79 ug/l	99
95) 1,3-Dichlorobenzene	13.505	146	137470	9.64 ug/l	96
96) 1,4-Dichlorobenzene	13.613	146	147882	10.07 ug/l	96
97) 1,2-Dichlorobenzene	14.071	146	129332	9.88 ug/l	93
98) n-Butylbenzene	14.082	91	218952	7.98 ug/l	97
99) 1,2-Dibromo-3-Chloropr...	15.007	75	11332	9.36 ug/l	80
100) 1,2,4-Trichlorobenzene	16.068	180	72073	8.59 ug/l	96
101) Hexachloro-1,3-Butadiene	16.313	225	65937	10.26 ug/l	94
102) Naphthalene	16.357	128	126634	7.04 ug/l	96
103) 1,2,3-Trichlorobenzene	16.662	180	80380	9.16 ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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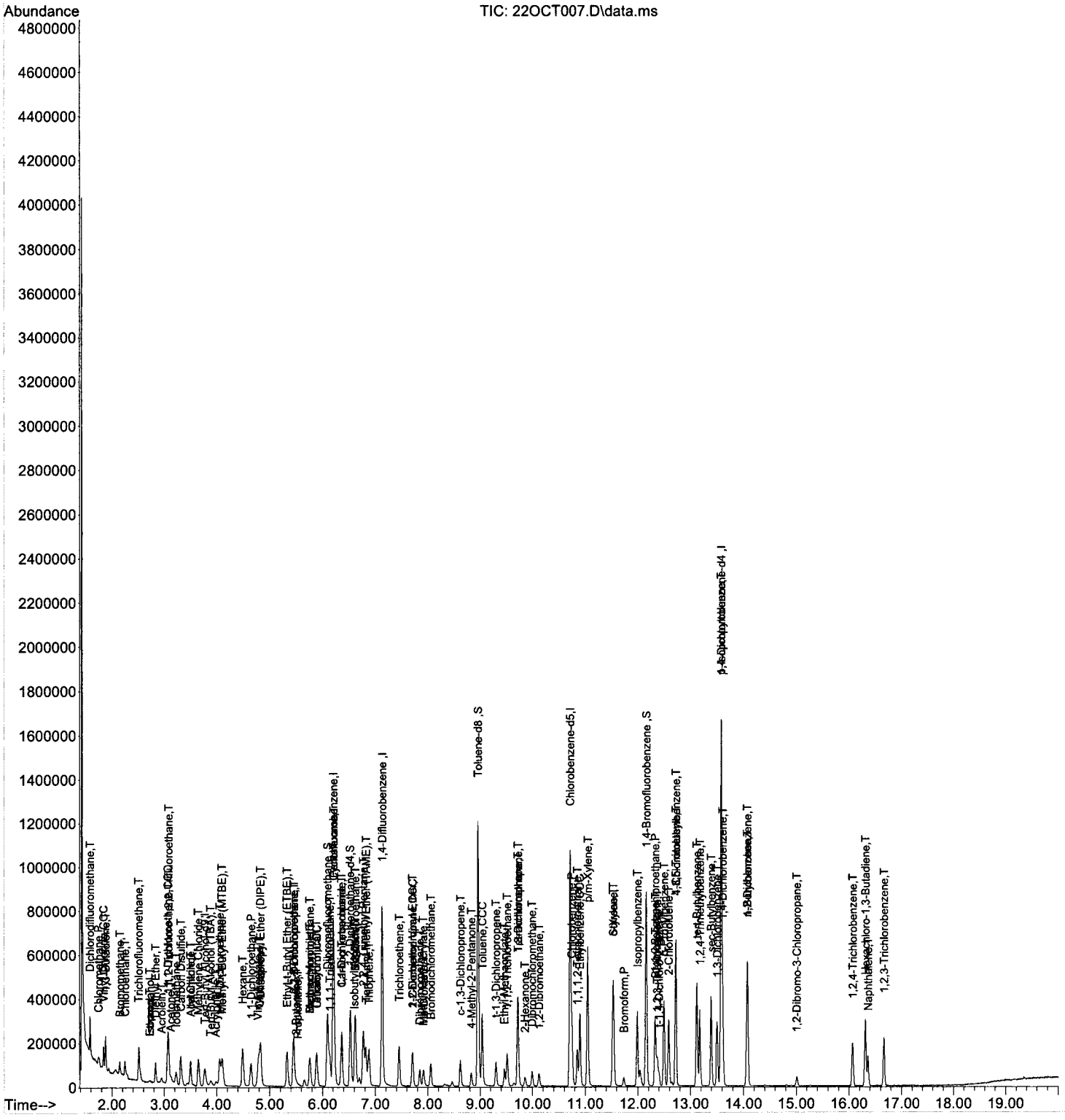
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT007.D
Acq On : 22 Oct 2013 1:36 pm
Sample : 10PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 14:46:00 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 7
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:19 2013
Response via : Initial Calibration



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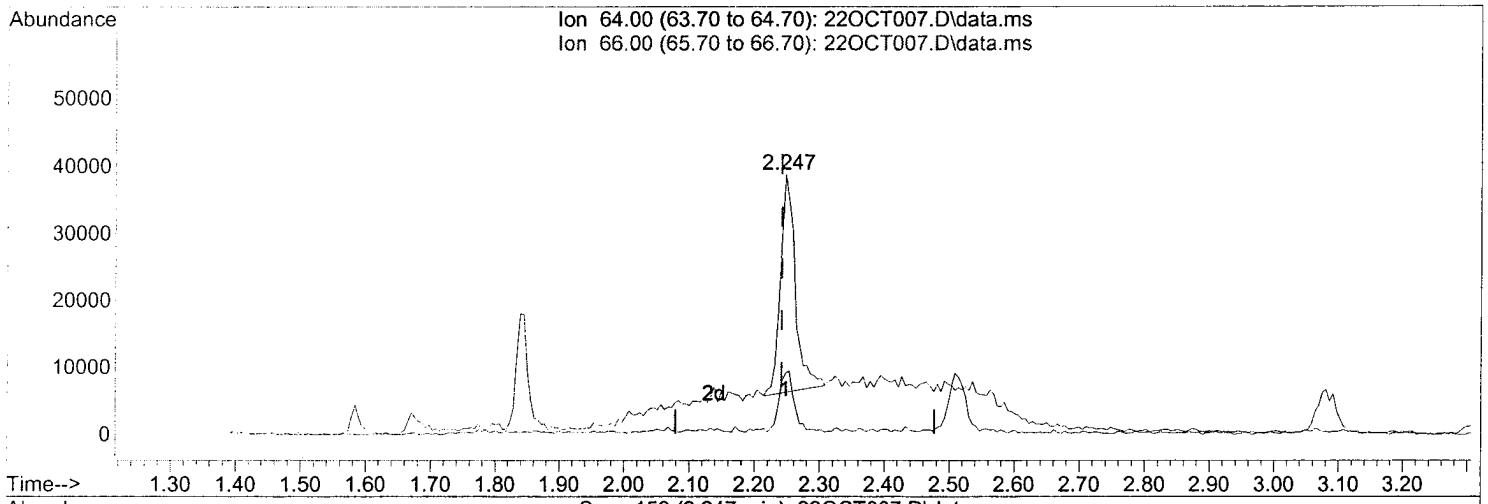
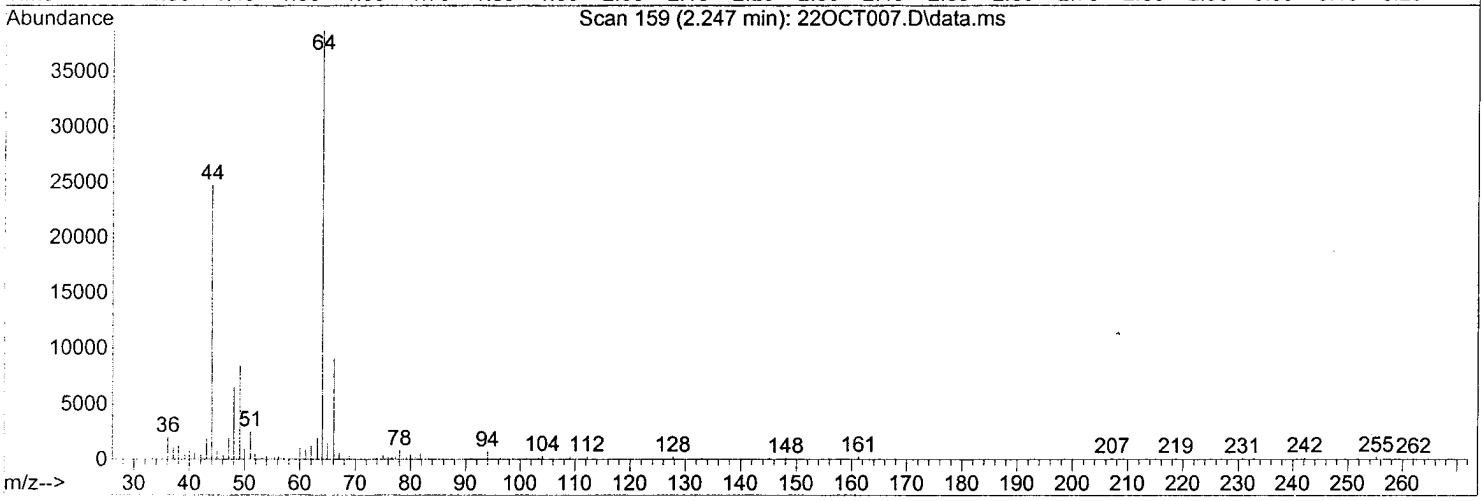
Quantitation Report (Qedit)

Data File : W:\GCMS_W_DATA\2013\131022\22OCT007.D
Acq On : 22 Oct 2013 1:36 pm
Sample : 10PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 15:02:27 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 7
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:19 2013
Response via : Initial Calibration





TIC: 22OCT007.D\data.ms

(9) Chloroethane (T)

2.247min (+0.006) 9.87ug/l m

response 51342

Ion	Exp%	Act%
64.00	100	100
66.00	30.10	23.49
0.00	0.00	0.00
0.00	0.00	0.00

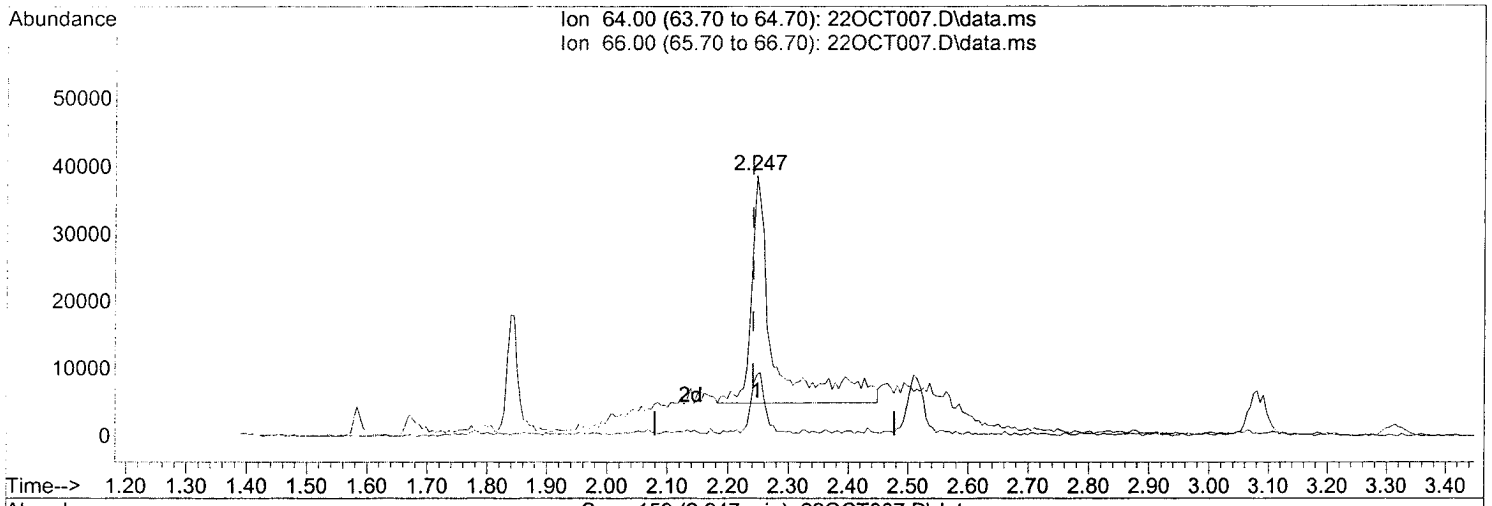
MANUAL INTEGRATION
BEFORE / AFTER
Date: 10/22/13
Chemist: JLa GL: 626
Reason: BASELINE ~~CORR.~~, PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

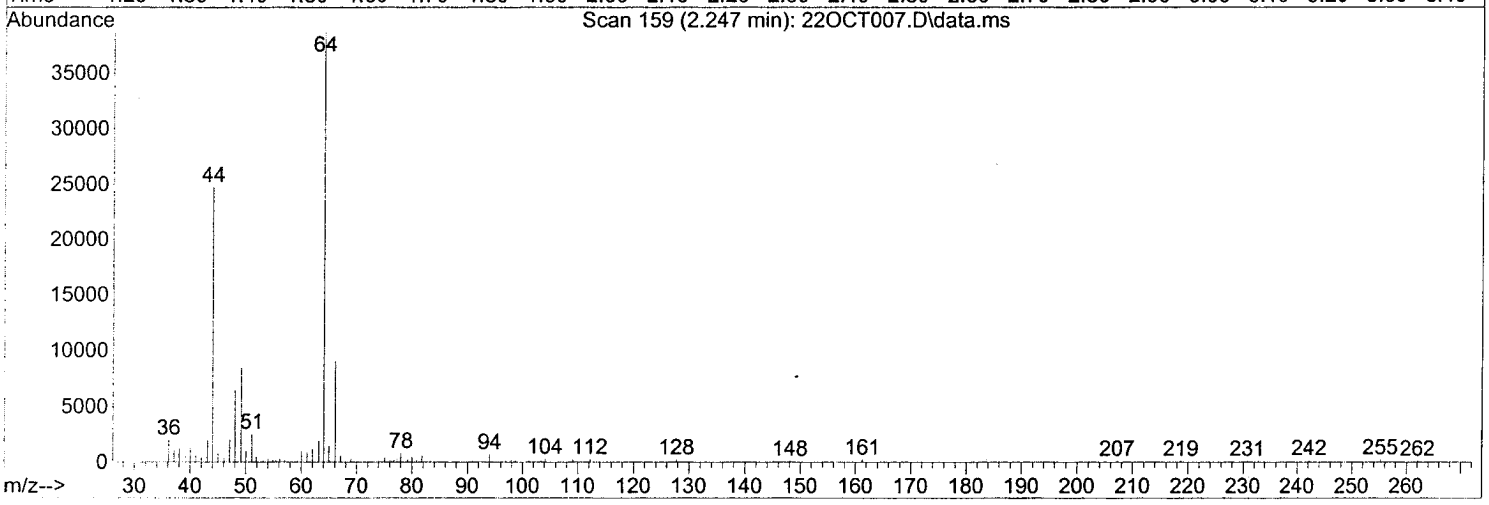
Quantitation Report (Qedit)

Data File : W:\GCMS_W_DATA\2013\131022\22OCT007.D
Acq On : 22 Oct 2013 1:36 pm
Sample : 10PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 15:02:27 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 7
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:03:19 2013
Response via : Initial Calibration





TIC: 22OCT007.D\data.ms

(9) Chloroethane (T)

2.247min (+0.006) 16.60ug/l

response 86354

Ion	Exp%	Act%
64.00	100	100
66.00	30.10	25.66
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION
BEFORE / AFTER
Date: 10/22/13
Chemist: JO GL: 626
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT008.D Vial: 8
Acq On : 22 Oct 2013 2:05 pm Operator: 486
Sample : 20PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:02:04 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:02:54 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	126802	250.00	ug/l	0.00
4) Pentafluorobenzene	6.205	168	482721	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	741778	50.00	ug/l	0.00
64) Chlorobenzene-d5	10.712	117	672122	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	420842	50.00	ug/l	0.00

System Monitoring Compounds						
41) Dibromofluoromethane	6.090	113	228265	52.64	ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 105.28%			
46) 1,2-Dichloroethane-d4	6.520	65	285827	52.53	ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 105.06%			
61) Toluene-d8	8.959	98	907785	49.65	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.30%			
80) 1,4-Bromofluorobenzene	12.160	95	341494	48.96	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%			

Target Compounds						Qvalue
2) Ethanol	2.715	45	20576	203.67	ug/l	89
3) Tert-Butyl Alcohol (TBA)	3.886	59	62940	91.38	ug/l	98
5) Dichlorodifluoromethane	1.583	85	193240	21.73	ug/l	100
6) Chloromethane	1.741	50	102447	19.24	ug/l	100
7) Vinyl Chloride	1.839	62	142420	21.07	ug/l	97
8) Bromomethane	2.149	94	51945	17.43	ug/l	95
9) Chloroethane	2.247	64	105081	18.86	ug/l	99
10) 1,3-Butadiene	1.877	54	98717	20.16	ug/l	99
11) Trichlorofluoromethane	2.514	101	215273	21.03	ug/l	99
12) Diethyl Ether	2.830	45	64224	20.51	ug/l	92
13) Acetone	3.123	58	17031	21.92	ug/l	87
14) Iodomethane	3.227	142	183133	35.33	ug/l	97
15) 1,1-Dichloroethene	3.064	61	189314	19.89	ug/l	98
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	130596	19.39	ug/l	96
17) Isopropanol	2.715	45	20922	107.08	ug/l	99
18) Carbon Disulfide	3.314	76	435543	20.67	ug/l	99
19) Acetonitrile	3.494	41	155939	42.25	ug/l	99
20) Acrylonitrile	3.984	53	41648	20.60	ug/l	98
21) Allyl Chloride	3.494	76	53513	20.50	ug/l	93
22) Acrolein	2.944	56	34399	39.13	ug/l	96
23) Methylene Chloride	3.652	84	127522	20.99	ug/l	97
24) t-1,2-Dichloroethene	4.054	96	122312	19.80	ug/l	95
25) Isobutyl Alcohol	6.575	43	9447	39.82	ug/l	80
26) Methyl-t-Butyl Ether (...	4.103	73	283714	19.15	ug/l	97
27) Hexane	4.484	57	188974	19.09	ug/l	99
28) 1,1-Dichloroethane	4.648	63	235770	20.98	ug/l	98
29) Vinyl Acetate	4.767	86	12461	17.76	ug/l	97
30) Diisopropyl Ether (DIPE)	4.822	45	381264	19.54	ug/l	99
31) Chloroprene	4.789	53	194909	18.55	ug/l	98
32) Ethyl-t-Butyl Ether (E...	5.328	59	289395	18.54	ug/l	95
33) c-1,2-Dichloroethene	5.453	96	129237	19.99	ug/l	100
34) 2,2-Dichloropropane	5.453	77	138297	21.56	ug/l	94
35) 2-Butanone	5.497	43	59351	20.59	ug/l	94
36) Propionitrile	5.540	54	19565	21.35	ug/l	87
37) Methacrylonitrile	5.758	41	66001	19.32	ug/l	94
38) Bromochloromethane	5.769	130	65881	22.61	ug/l	99
39) Tetrahydrofuran	5.872	42	34226	18.55	ug/l	94
40) Chloroform	5.889	83	230819	20.85	ug/l	95
42) 1,1,1-Trichloroethane	6.134	97	191060	20.13	ug/l	95
43) Cyclohexane	6.215	84	195254	20.06	ug/l	98
44) 1,1-Dichloropropene	6.357	75	165185	19.33	ug/l	97

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT008.D Vial: 8
Acq On : 22 Oct 2013 2:05 pm Operator: 486
Sample : 20PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:02:04 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:02:54 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	137652	19.22 ug/l	95
48) Benzene	6.613	78	523769	19.71 ug/l	95
49) 1,2-Dichloroethane	6.624	62	176493	20.20 ug/l	96
50) Tert-Amyl-Methyl Ether...	6.814	73	274494	18.84 ug/l	95
51) Thiophene	6.874	84	250312	19.66 ug/l	99
52) 2,2,4-Trimethyl Pentane	6.771	57	544476	18.77 ug/l	97
53) Trichloroethene	7.451	95	133700	19.93 ug/l	96
54) 1,2-Dichloropropane	7.707	63	117419	20.02 ug/l	98
55) Dibromomethane	7.849	93	69029	21.09 ug/l	97
56) Methyl Methacrylate	7.914	69	63483	18.19 ug/l	91
57) 1,4-Dioxane	7.925	88	16382	178.84 ug/l	97
58) Bromodichloromethane	8.055	83	149912	19.42 ug/l	98
59) 2-Chloroethyl Vinyl Ether	7.707	63	117427	20.04 ug/l	97
60) c-1,3-Dichloropropene	8.622	75	147330	18.12 ug/l	97
62) Toluene	9.041	91	545260	19.45 ug/l	100
63) 4-Methyl-2-Pentanone	8.823	58	34672	16.77 ug/l	98
65) t-1,3-Dichloropropene	9.302	75	132959	18.41 ug/l	99
66) Ethyl Methacrylate	9.465	69	97135	16.15 ug/l	95
67) 1,1,2-Trichloroethane	9.514	83	85523	19.84 ug/l	95
68) Tetrachloroethene	9.721	166	178200	21.40 ug/l	96
69) 1,3-Dichloropropane	9.716	76	177544	20.01 ug/l	97
70) 2-Hexanone	9.852	58	34882	17.53 ug/l	92
71) Dibromochloromethane	9.988	129	83115	18.27 ug/l	100
72) 1,2-Dibromoethane	10.124	107	91416	19.77 ug/l	99
73) Chlorobenzene	10.750	112	331451	19.53 ug/l	95
74) 1,1,1,2-Tetrachloroethane	10.848	131	92198	18.32 ug/l	95
75) Ethylbenzene	10.897	91	572003	17.84 ug/l	98
76) p/m-Xylene	11.049	91	965251	37.09 ug/l	99
77) o-Xylene	11.528	91	450734	18.10 ug/l	100
78) Styrene	11.539	104	349292	18.03 ug/l	98
79) Isopropylbenzene	11.991	105	554765	17.68 ug/l	99
81) 1,2,3-Trichloropropane	12.367	110	43609	19.63 ug/l	97
82) Bromobenzene	12.334	156	138669	18.91 ug/l	96
83) n-Propylbenzene	12.497	91	746151	18.33 ug/l	98
84) t-1,4-Dichloro-2-Butene	12.399	53	32920	17.82 ug/l	98
85) 2-Chlorotoluene	12.584	91	420754	19.00 ug/l	95
86) 1,3,5-Trimethylbenzene	12.721	105	505656	18.23 ug/l	95
88) Bromoform	11.735	173	41416	16.52 ug/l	87
89) 1,1,2,2-Tetrachloroethane	12.323	83	135905	19.93 ug/l	97
90) 4-Chlorotoluene	12.721	91	512091	19.04 ug/l	99
91) 1,2,4-Trimethylbenzene	13.178	105	506063	18.29 ug/l	100
92) tert-Butylbenzene	13.118	134	121199	18.20 ug/l	93
93) p-Isopropyltoluene	13.575	119	569235	18.25 ug/l	97
94) sec-Butylbenzene	13.390	105	671045	18.18 ug/l	95
95) 1,3-Dichlorobenzene	13.504	146	288568	19.45 ug/l	96
96) 1,4-Dichlorobenzene	13.613	146	299213	19.70 ug/l	98
97) 1,2-Dichlorobenzene	14.071	146	265923	19.56 ug/l	96
98) n-Butylbenzene	14.081	91	533372	17.96 ug/l	99
99) 1,2-Dibromo-3-Chloropr...	15.012	75	24209	19.00 ug/l	96
100) 1,2,4-Trichlorobenzene	16.063	180	162645	17.88 ug/l	89
101) Hexachloro-1,3-Butadiene	16.313	225	131123	19.77 ug/l	96
102) Naphthalene	16.357	128	323424	15.59 ug/l	97
103) 1,2,3-Trichlorobenzene	16.667	180	171396	18.16 ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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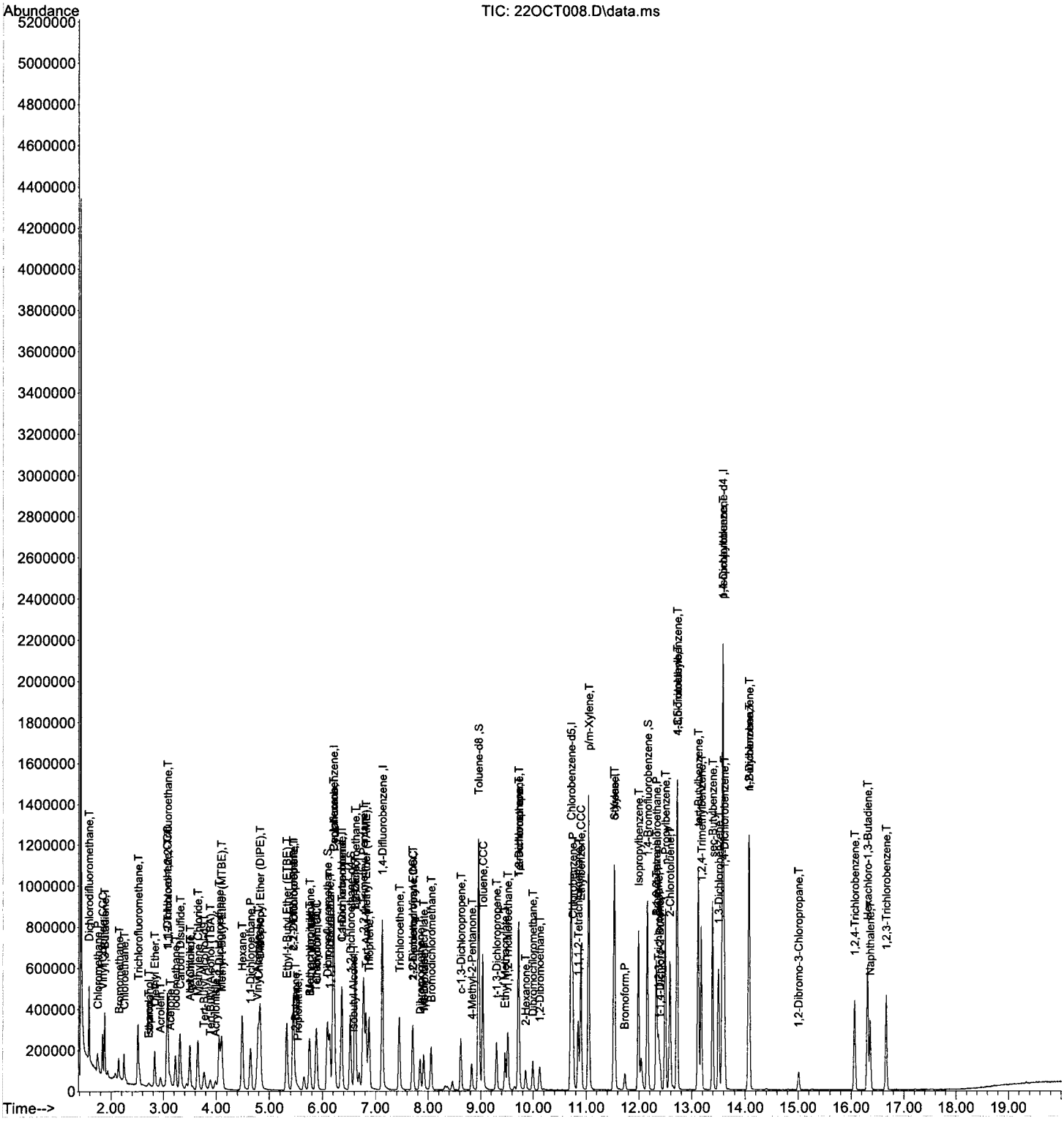
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT008.D Vial: 8
Acq On : 22 Oct 2013 2:05 pm Operator: 486
Sample : 20PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:02:04 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:02:54 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT009.D Vial: 9
Acq On : 22 Oct 2013 2:35 pm Operator: 486
Sample : 50PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:48:55 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 14:50:49 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	129166	250.00 ug/l	-0.02
4) Pentafluorobenzene	6.205	168	517513	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	773704	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	699167	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	439420	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.096	113	232428	47.42 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 94.84%		
46) 1,2-Dichloroethane-d4	6.526	65	291657	49.07 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 98.14%		
61) Toluene-d8	8.959	98	953620	50.76 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%		
80) 1,4-Bromofluorobenzene	12.160	95	362767	54.23 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.46%		

Target Compounds					Qvalue
2) Ethanol	2.721	45	51455	563.26 ug/l	90
3) Tert-Butyl Alcohol (TBA)	3.875	59	175396	271.10 ug/l	92
5) Dichlorodifluoromethane	1.583	85	476588	50.09 ug/l	99
6) Chloromethane	1.746	50	285433	29.71 ug/l	98
7) Vinyl Chloride	1.839	62	362337	46.97 ug/l	98
8) Bromomethane	2.138	94	159756	32.57 ug/l	99
9) Chloroethane	2.242	64	210493m	49.88 ug/l	
10) 1,3-Butadiene	1.877	54	262493	49.19 ug/l	93
11) Trichlorofluoromethane	2.508	101	548763	47.77 ug/l	99
12) Diethyl Ether	2.829	45	167890	47.89 ug/l	98
13) Acetone	3.123	58	41647	65.62 ug/l	96
14) Iodomethane	3.227	142	555713	205.19 ug/l	99
15) 1,1-Dichloroethene	3.064	61	510199	55.03 ug/l	99
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	361114	54.42 ug/l	92
17) Isopropanol	2.721	45	52366	238.02 ug/l	98
18) Carbon Disulfide	3.314	76	1129408	57.91 ug/l	99
19) Acetonitrile	3.499	41	395713	93.52 ug/l	98
20) Acrylonitrile	3.984	53	108397	51.64 ug/l	97
21) Allyl Chloride	3.499	76	139957	45.32 ug/l #	82
22) Acrolein	2.944	56	94242	104.66 ug/l	85
23) Methylene Chloride	3.651	84	325681	61.28 ug/l	99
24) t-1,2-Dichloroethene	4.054	96	331188	52.87 ug/l	97
25) Isobutyl Alcohol	6.575	43	25434	111.66 ug/l #	75
26) Methyl-t-Butyl Ether (...	4.098	73	794302	56.18 ug/l	100
27) Hexane	4.490	57	530712	58.31 ug/l	95
28) 1,1-Dichloroethane	4.642	63	602367	52.31 ug/l	98
29) Vinyl Acetate	4.767	86	37612	52.61 ug/l #	60
30) Diisopropyl Ether (DIPE)	4.822	45	1046080	57.22 ug/l	99
31) Chloroprene	4.789	53	563320	59.09 ug/l	97
32) Ethyl-t-Butyl Ether (E...	5.328	59	836602	60.31 ug/l	96
33) c-1,2-Dichloroethene	5.453	96	346513	54.13 ug/l	99
34) 2,2-Dichloropropane	5.453	77	343908	41.97 ug/l	100
35) 2-Butanone	5.497	43	154528	52.17 ug/l	94
36) Propionitrile	5.535	54	49128	52.83 ug/l	95
37) Methacrylonitrile	5.753	41	183078	54.02 ug/l	93
38) Bromochloromethane	5.764	130	156210	44.14 ug/l	99
39) Tetrahydrofuran	5.872	42	98918	51.61 ug/l	98
40) Chloroform	5.889	83	593337	53.00 ug/l	97
42) 1,1,1-Trichloroethane	6.134	97	508803	54.90 ug/l	99
43) Cyclohexane	6.221	84	521770	57.37 ug/l	99
44) 1,1-Dichloropropene	6.357	75	458078	56.58 ug/l	97

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT009.D Vial: 9
Acq On : 22 Oct 2013 2:35 pm Operator: 486
Sample : 50PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:48:55 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 14:50:49 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	383985	54.11 ug/l	99
48) Benzene	6.613	78	1385964	54.55 ug/l	99
49) 1,2-Dichloroethane	6.624	62	455558	50.50 ug/l	99
50) Tert-Amyl-Methyl Ether...	6.814	73	759973	60.05 ug/l	97
51) Thiophene	6.874	84	663965	56.09 ug/l	96
52) 2,2,4-Trimethyl Pentane	6.771	57	1512438	58.05 ug/l	99
53) Trichloroethene	7.451	95	349830	54.12 ug/l	98
54) 1,2-Dichloropropane	7.707	63	305815	52.91 ug/l	99
55) Dibromomethane	7.848	93	170662	51.57 ug/l	94
56) Methyl Methacrylate	7.914	69	181986	54.03 ug/l	98
57) 1,4-Dioxane	7.919	88	47771	557.33 ug/l	89
58) Bromodichloromethane	8.055	83	402520	55.79 ug/l	100
59) 2-Chloroethyl Vinyl Ether	7.707	63	305556	53.85 ug/l	97
60) c-1,3-Dichloropropene	8.621	75	424126	58.07 ug/l	98
62) Toluene	9.041	91	1462149	51.91 ug/l	98
63) 4-Methyl-2-Pentanone	8.823	58	107829	54.96 ug/l	99
65) t-1,3-Dichloropropene	9.302	75	375607	58.11 ug/l	99
66) Ethyl Methacrylate	9.460	69	312797	56.73 ug/l	98
67) 1,1,2-Trichloroethane	9.514	83	224209	55.59 ug/l	98
68) Tetrachloroethene	9.721	166	433147	54.70 ug/l	98
69) 1,3-Dichloropropane	9.716	76	461557	54.26 ug/l	98
70) 2-Hexanone	9.852	58	103467	55.01 ug/l	93
71) Dibromochloromethane	9.988	129	236570	54.30 ug/l	97
72) 1,2-Dibromoethane	10.118	107	240480	53.71 ug/l	99
73) Chlorobenzene	10.750	112	882722	50.32 ug/l	96
74) 1,1,1,2-Tetrachloroethane	10.848	131	261811	54.78 ug/l	97
75) Ethylbenzene	10.897	91	1668078	58.19 ug/l	99
76) p/m-Xylene	11.049	91	2707012	123.12 ug/l	99
77) o-Xylene	11.528	91	1295437	61.72 ug/l	99
78) Styrene	11.539	104	1007740	59.12 ug/l	99
79) Isopropylbenzene	11.991	105	1631734	60.78 ug/l	99
81) 1,2,3-Trichloropropane	12.367	110	115539	50.35 ug/l	95
82) Bromobenzene	12.334	156	381462	50.96 ug/l	92
83) n-Propylbenzene	12.492	91	2117501	59.63 ug/l	96
84) t-1,4-Dichloro-2-Butene	12.399	53	96073	55.46 ug/l	95
85) 2-Chlorotoluene	12.584	91	1151996	56.66 ug/l	100
86) 1,3,5-Trimethylbenzene	12.720	105	1442678	60.75 ug/l	96
88) Bromoform	11.735	173	130891	52.84 ug/l	99
89) 1,1,2,2-Tetrachloroethane	12.323	83	355972	51.36 ug/l	99
90) 4-Chlorotoluene	12.720	91	1404504	56.78 ug/l	96
91) 1,2,4-Trimethylbenzene	13.178	105	1444566	60.55 ug/l	96
92) tert-Butylbenzene	13.118	134	347608	56.07 ug/l	93
93) p-Isopropyltoluene	13.575	119	1628213	57.63 ug/l	98
94) sec-Butylbenzene	13.390	105	1927420	60.27 ug/l	96
95) 1,3-Dichlorobenzene	13.504	146	774475	52.29 ug/l	99
96) 1,4-Dichlorobenzene	13.613	146	792840	49.24 ug/l	99
97) 1,2-Dichlorobenzene	14.065	146	709620	50.65 ug/l	97
98) n-Butylbenzene	14.081	91	1550012	61.12 ug/l	99
99) 1,2-Dibromo-3-Chloropr...	15.012	75	66508	54.61 ug/l	89
100) 1,2,4-Trichlorobenzene	16.068	180	474866	55.92 ug/l	97
101) Hexachloro-1,3-Butadiene	16.313	225	346277	53.89 ug/l	98
102) Naphthalene	16.357	128	1082842	55.06 ug/l	100
103) 1,2,3-Trichlorobenzene	16.662	180	492856	57.86 ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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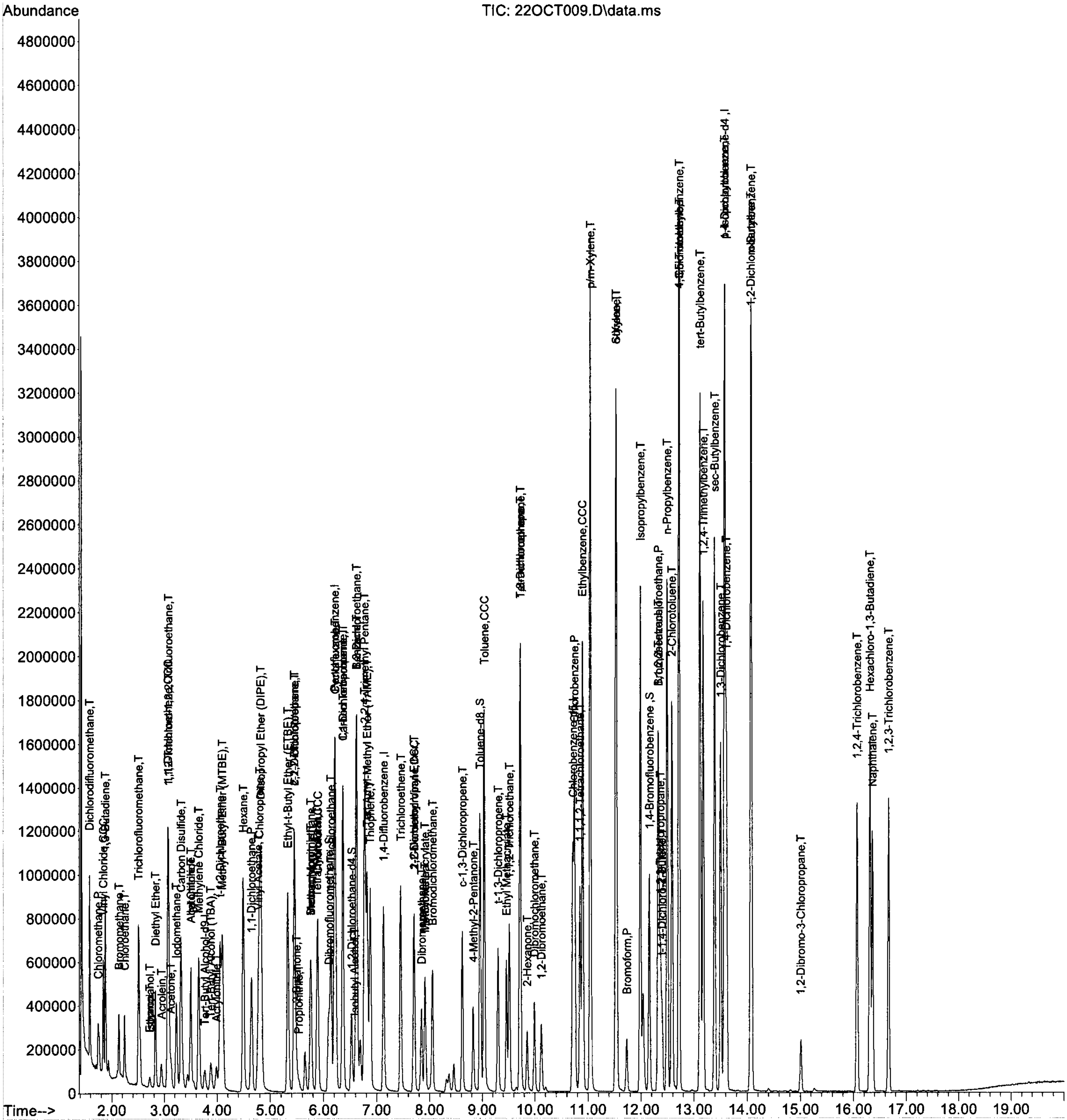
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT009.D
Acq On : 22 Oct 2013 2:35 pm
Sample : 50PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 14:48:55 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 9
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 14:50:49 2013
Response via : Initial Calibration

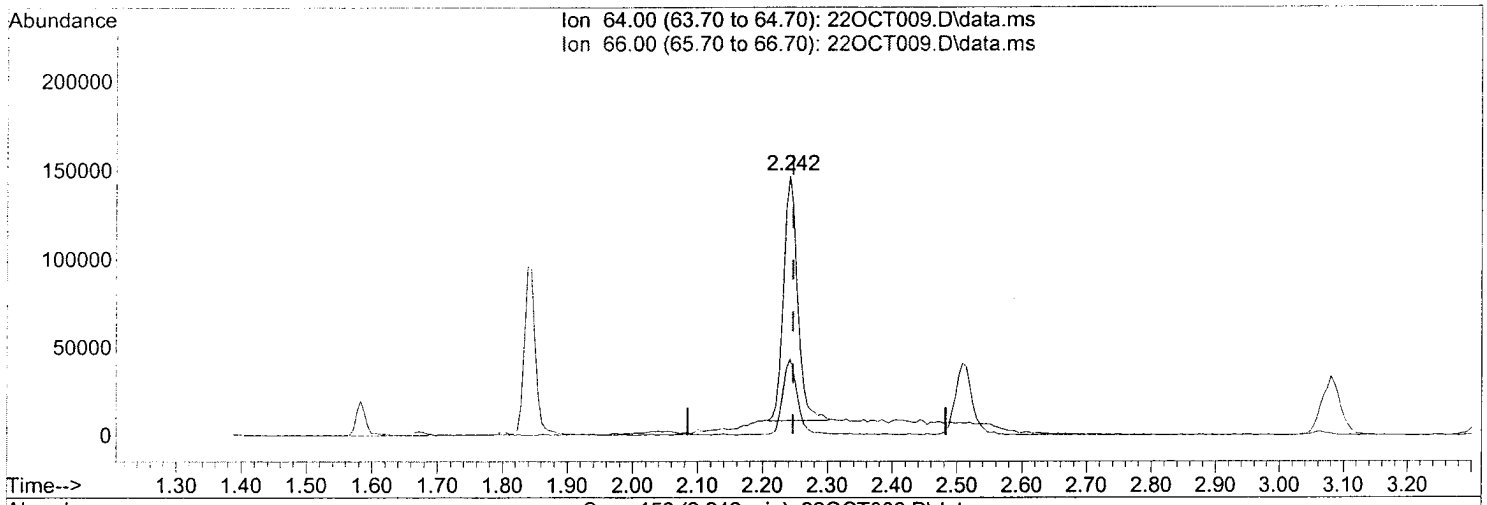


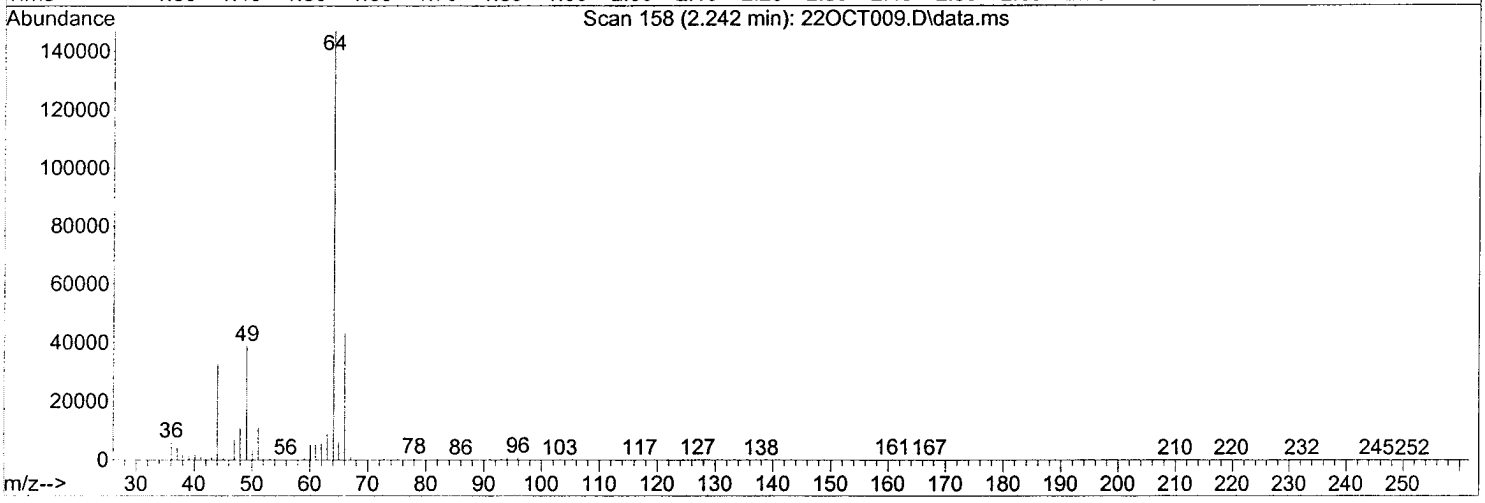
Quantitation Report (Qedit)

Data File : W:\GCMS_W_DATA\2013\131022\22OCT009.D
Acq On : 22 Oct 2013 2:35 pm
Sample : 50PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 15:01:23 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 9
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 14:50:49 2013
Response via : Initial Calibration





TIC: 22OCT009.D\data.ms

(9) Chloroethane (T)

2.242min (-0.005) 49.88ug/l m

response 210493

Ion	Exp%	Act%
64.00	100	100
66.00	32.10	29.49
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION
BEFORE / AFTER
Date: 10/22/13
Chemist: SP GL: 626
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

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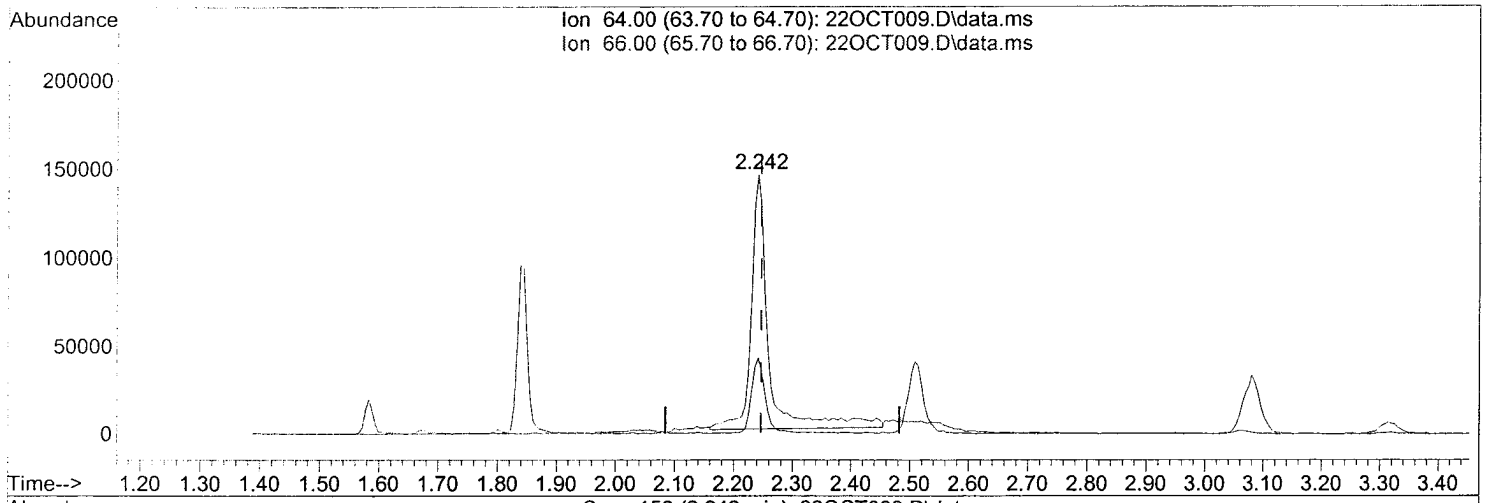
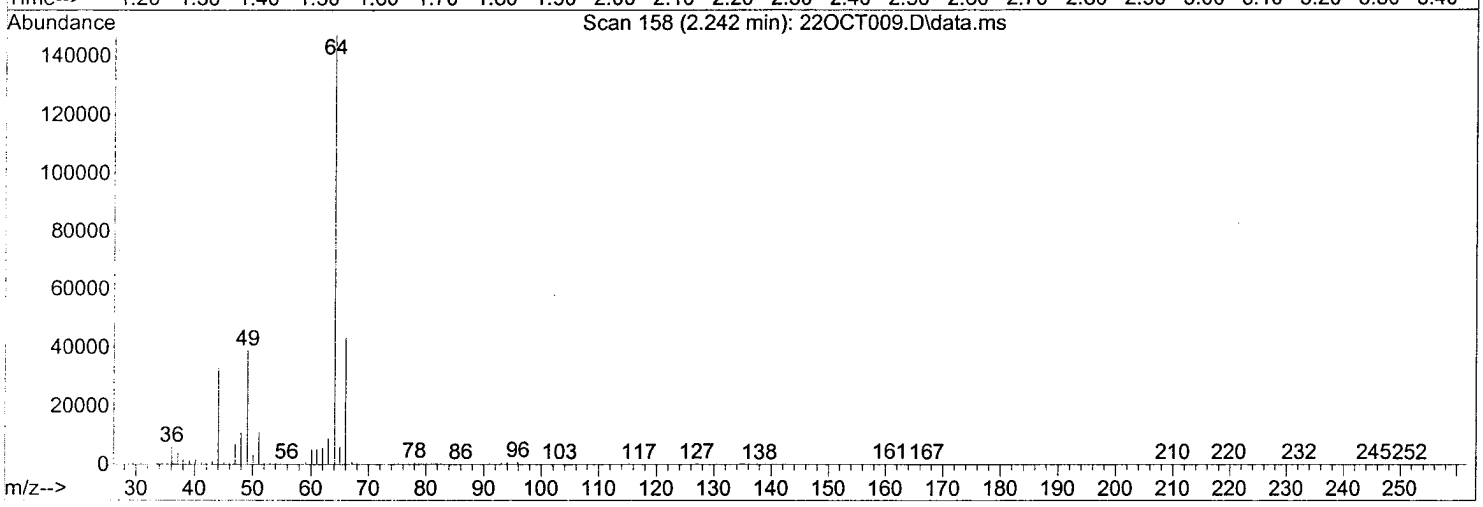
Quantitation Report (Qedit)

Data File : W:\GCMS_W_DATA\2013\131022\22OCT009.D
Acq On : 22 Oct 2013 2:35 pm
Sample : 50PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 15:01:23 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 9
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 14:50:49 2013
Response via : Initial Calibration





TIC: 22OCT009.D\data.ms

(9) Chloroethane (T)

2.242min (-0.005) 70.79ug/l

response 298727

Ion	Exp%	Act%
64.00	100	100
66.00	32.10	30.07
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION
BEFORE / AFTER
Date: 10/22/13
Chemist: SJ GL: 626
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT010.D Vial: 10
Acq On : 22 Oct 2013 3:05 pm Operator: 486
Sample : 100/60PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:32:15 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:04:18 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.771	65	152741	250.00	ug/l	0.00
4) Pentafluorobenzene	6.205	168	559360	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	814038	50.00	ug/l	0.00
64) Chlorobenzene-d5	10.712	117	752089	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	469877	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.090	113	243828	44.82	ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 89.64%			
46) 1,2-Dichloroethane-d4	6.520	65	316470	45.13	ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 90.26%			
61) Toluene-d8	8.959	98	1025699	51.22	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.44%			
80) 1,4-Bromofluorobenzene	12.160	95	394274	54.05	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.10%			

Target Compounds						Qvalue
2) Ethanol	2.721	45	104411	829.26	ug/l	97
3) Tert-Butyl Alcohol (TBA)	3.891	59	399311	482.78	ug/l	93
5) Dichlorodifluoromethane	1.583	85	586405	53.48	ug/l	97
6) Chloromethane	1.741	50	436433	73.25	ug/l	96
7) Vinyl Chloride	1.839	62	438624	53.02	ug/l	98
8) Bromomethane	2.127	94	250779	75.42	ug/l	97
9) Chloroethane	2.236	64	301861	41.23	ug/l	90
10) 1,3-Butadiene	1.877	54	547536	92.39	ug/l	99
11) Trichlorofluoromethane	2.503	101	660698	51.47	ug/l	97
12) Diethyl Ether	2.830	45	365325	83.84	ug/l	97
13) Acetone	3.129	58	74601	72.86	ug/l	90
14) Iodomethane	3.227	142	1062052	209.62	ug/l	100
15) 1,1-Dichloroethene	3.058	61	998601	86.88	ug/l	98
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	682190	84.72	ug/l	97
17) Isopropanol	2.721	45	104411	437.01	ug/l	99
18) Carbon Disulfide	3.309	76	2091273	77.59	ug/l	100
19) Acetonitrile	3.494	41	844599	183.58	ug/l	98
20) Acrylonitrile	3.984	53	229590	96.26	ug/l	94
21) Allyl Chloride	3.494	76	300811	79.57	ug/l	94
22) Acrolein	2.944	56	184956	186.08	ug/l	96
23) Methylene Chloride	3.646	84	677281	91.82	ug/l	100
24) t-1,2-Dichloroethene	4.049	96	688002	95.62	ug/l	98
25) Isobutyl Alcohol	6.580	43	53468	180.64	ug/l	89
26) Methyl-t-Butyl Ether (...	4.098	73	1820150	107.03	ug/l	99
27) Hexane	4.485	57	1135330	105.52	ug/l	96
28) 1,1-Dichloroethane	4.642	63	1214597	85.72	ug/l	99
29) Vinyl Acetate	4.762	86	92038	121.26	ug/l #	68
30) Diisopropyl Ether (DIPE)	4.822	45	2278035	102.69	ug/l	98
31) Chloroprene	4.784	53	1208240	106.63	ug/l	99
32) Ethyl-t-Butyl Ether (E...	5.328	59	1921485	112.78	ug/l	99
33) c-1,2-Dichloroethene	5.453	96	740987	99.12	ug/l	100
34) 2,2-Dichloropropane	5.453	77	817693	97.84	ug/l	99
35) 2-Butanone	5.497	43	334019	99.05	ug/l	97
36) Propionitrile	5.541	54	100635	92.69	ug/l	92
37) Methacrylonitrile	5.753	41	399741	104.31	ug/l	98
38) Bromochloromethane	5.764	130	302327	78.45	ug/l	100
39) Tetrahydrofuran	5.873	42	210095	101.25	ug/l	97
40) Chloroform	5.889	83	1237270	91.25	ug/l	98
42) 1,1,1-Trichloroethane	6.134	97	1077913	97.53	ug/l	98
43) Cyclohexane	6.221	84	1076197	93.30	ug/l	99
44) 1,1-Dichloropropene	6.357	75	957816	94.39	ug/l	98

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT010.D Vial: 10
Acq On : 22 Oct 2013 3:05 pm Operator: 486
Sample : 100/60PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:32:15 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:04:18 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.363	117	828243	101.07 ug/l	96
48) Benzene	6.613	78	2859090	98.32 ug/l	99
49) 1,2-Dichloroethane	6.624	62	970708	95.40 ug/l	100
50) Tert-Amyl-Methyl Ether...	6.814	73	1745201	121.22 ug/l	96
51) Thiophene	6.874	84	1421892	108.01 ug/l	99
52) 2,2,4-Trimethyl Pentane	6.771	57	3167372	110.76 ug/l	99
53) Trichloroethene	7.451	95	725443	98.29 ug/l	98
54) 1,2-Dichloropropane	7.707	63	654706	99.21 ug/l	100
55) Dibromomethane	7.849	93	359030	95.49 ug/l	95
56) Methyl Methacrylate	7.914	69	434502	125.29 ug/l	96
57) 1,4-Dioxane	7.914	88	97573	1065.83 ug/l	76
58) Bromodichloromethane	8.056	83	892199	109.19 ug/l	100
59) 2-Chloroethyl Vinyl Ether	7.707	63	653545	101.65 ug/l	99
60) c-1,3-Dichloropropene	8.622	75	977742	123.67 ug/l	99
62) Toluene	9.041	91	3088669	101.60 ug/l	98
63) 4-Methyl-2-Pentanone	8.823	58	243902	121.25 ug/l	97
65) t-1,3-Dichloropropene	9.302	75	895559	123.89 ug/l	99
66) Ethyl Methacrylate	9.460	69	783308	139.04 ug/l	100
67) 1,1,2-Trichloroethane	9.514	83	475594	96.38 ug/l	97
68) Tetrachloroethene	9.721	166	928257	93.06 ug/l	98
69) 1,3-Dichloropropane	9.716	76	1019362	101.48 ug/l	98
70) 2-Hexanone	9.852	58	242863	124.37 ug/l	95
71) Dibromochloromethane	9.988	129	555971	120.31 ug/l	99
72) 1,2-Dibromoethane	10.119	107	536295	108.83 ug/l	97
73) Chlorobenzene	10.750	112	1884399	98.53 ug/l	98
74) 1,1,1,2-Tetrachloroethane	10.848	131	600806	115.03 ug/l	96
75) Ethylbenzene	10.897	91	3595942	110.72 ug/l	97
76) p/m-Xylene	11.049	91	5754591	203.91 ug/l	100
77) o-Xylene	11.528	91	2824404	111.05 ug/l	100
78) Styrene	11.539	104	2221028	121.57 ug/l	99
79) Isopropylbenzene	11.991	105	3628378	119.66 ug/l	98
81) 1,2,3-Trichloropropane	12.372	110	251182	101.62 ug/l	97
82) Bromobenzene	12.334	156	822173	104.15 ug/l	100
83) n-Propylbenzene	12.497	91	4498943	109.59 ug/l	98
84) t-1,4-Dichloro-2-Butene	12.399	53	224297	111.56 ug/l	89
85) 2-Chlorotoluene	12.585	91	2474379	105.84 ug/l	98
86) 1,3,5-Trimethylbenzene	12.721	105	3082945	118.98 ug/l	98
88) Bromoform	11.735	173	321135	124.38 ug/l	96
89) 1,1,2,2-Tetrachloroethane	12.323	83	781333	96.34 ug/l	97
90) 4-Chlorotoluene	12.715	91	2981612	107.68 ug/l	99
91) 1,2,4-Trimethylbenzene	13.178	105	3113593	119.30 ug/l	100
92) tert-Butylbenzene	13.118	134	745928	112.83 ug/l	99
93) p-Isopropyltoluene	13.575	119	3484547	115.86 ug/l	100
94) sec-Butylbenzene	13.390	105	4158068	115.72 ug/l	100
95) 1,3-Dichlorobenzene	13.505	146	1657842	100.53 ug/l	99
96) 1,4-Dichlorobenzene	13.613	146	1684926	95.33 ug/l	100
97) 1,2-Dichlorobenzene	14.071	146	1551143	100.48 ug/l	98
98) n-Butylbenzene	14.082	91	3380814	123.24 ug/l	100
99) 1,2-Dibromo-3-Chloropr...	15.007	75	156181	115.05 ug/l	96
100) 1,2,4-Trichlorobenzene	16.068	180	1131753	124.13 ug/l	98
101) Hexachloro-1,3-Butadiene	16.308	225	733684	93.65 ug/l	99
102) Naphthalene	16.357	128	2722732	146.57 ug/l	100
103) 1,2,3-Trichlorobenzene	16.662	180	1119709	118.57 ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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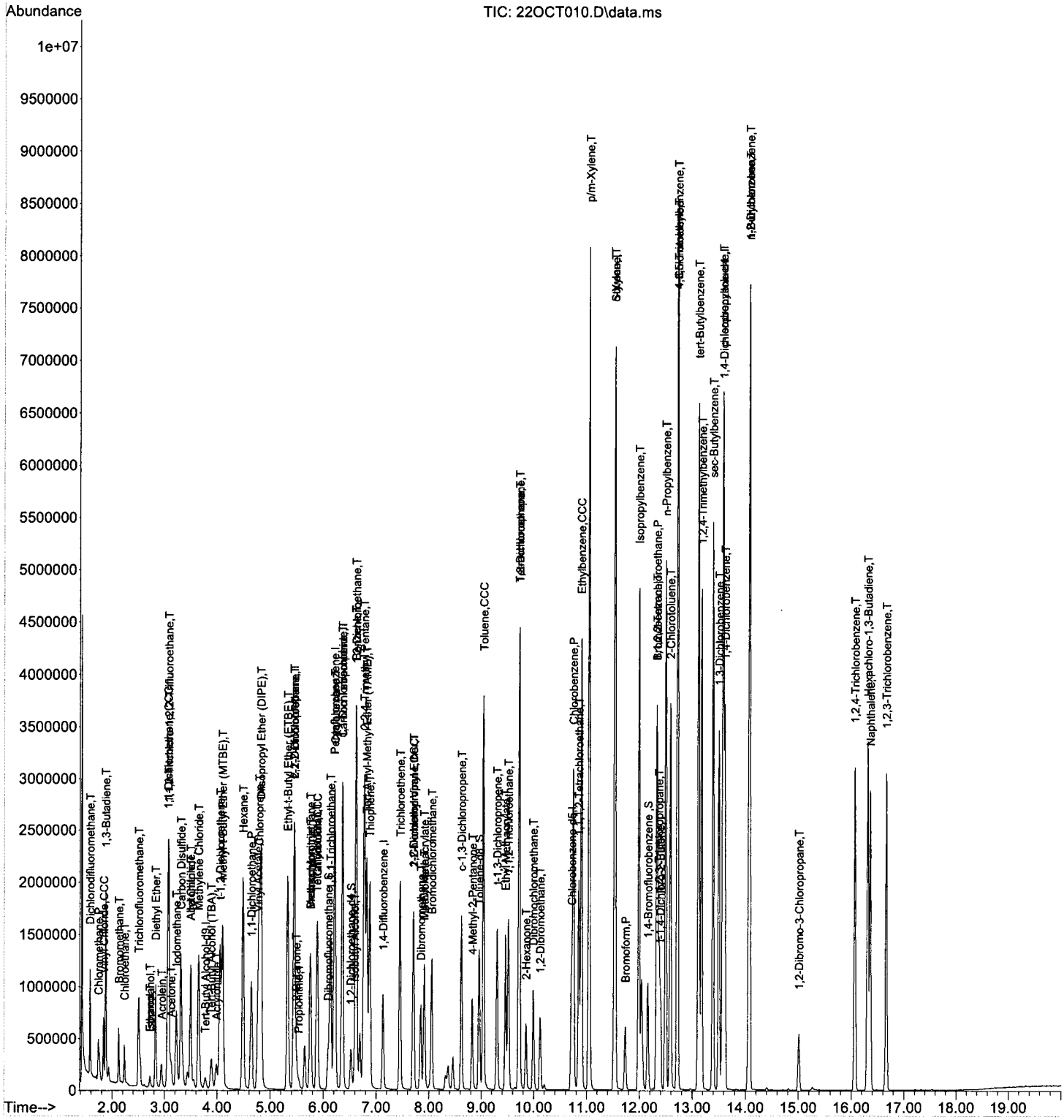
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT010.D
Acq On : 22 Oct 2013 3:05 pm
Sample : 100/60PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 14:32:15 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 10
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:04:18 2013
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT011.D Vial: 11
Acq On : 22 Oct 2013 3:35 pm Operator: 486
Sample : 200/80PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:55:24 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:53:11 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.782	65	162960	250.00	ug/l	0.02
4) Pentafluorobenzene	6.205	168	572575	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	839569	50.00	ug/l	0.00
64) Chlorobenzene-d5	10.712	117	780311	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	485262	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.090	113	246563	45.70	ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 91.40%			
46) 1,2-Dichloroethane-d4	6.526	65	312576	45.00	ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 90.00%			
61) Toluene-d8	8.959	98	1038456	50.06	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			
80) 1,4-Bromofluorobenzene	12.160	95	418979	53.91	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.82%			

Target Compounds						Qvalue
2) Ethanol	2.737	45	217785	1747.07	ug/l	96
3) Tert-Butyl Alcohol (TBA)	3.896	59	908870	1030.71	ug/l	95
5) Dichlorodifluoromethane	1.577	85	810910	74.81	ug/l	98
6) Chloromethane	1.741	50	720387	105.82	ug/l	95
7) Vinyl Chloride	1.844	62	667609	80.34	ug/l	100
8) Bromomethane	2.116	94	279535	77.72	ug/l	100
9) Chloroethane	2.220	64	441369	77.05	ug/l	96
10) 1,3-Butadiene	1.882	54	1004411	172.72	ug/l	96
11) Trichlorofluoromethane	2.492	101	931998	74.08	ug/l	100
12) Diethyl Ether	2.824	45	700448	167.55	ug/l	92
13) Acetone	3.129	58	147180	158.46	ug/l	99
14) Iodomethane	3.216	142	2143250	406.64	ug/l	98
15) 1,1-Dichloroethene	3.053	61	1902718	170.91	ug/l	99
16) 1,1,2-Trichloro-1,2,2-...	3.069	101	1266510	164.18	ug/l	97
17) Isopropanol	2.737	45	218478	936.93	ug/l	99
18) Carbon Disulfide	3.303	76	4324996	169.17	ug/l	100
19) Acetonitrile	3.494	41	1622041	360.35	ug/l	100
20) Acrylonitrile	3.984	53	472506	196.27	ug/l	97
21) Allyl Chloride	3.494	76	569774	159.69	ug/l	96
22) Acrolein	2.938	56	370946	376.50	ug/l	97
23) Methylene Chloride	3.646	84	1283012	178.20	ug/l	98
24) t-1,2-Dichloroethene	4.049	96	1323665	184.18	ug/l	98
25) Isobutyl Alcohol	6.580	43	128729	427.83	ug/l	89
26) Methyl-t-Butyl Ether (...	4.098	73	3674726	206.76	ug/l	98
27) Hexane	4.479	57	2182639	196.67	ug/l	96
28) 1,1-Dichloroethane	4.642	63	2283903	167.38	ug/l	99
29) Vinyl Acetate	4.762	86	192184	226.96	ug/l #	77
30) Diisopropyl Ether (DIPE)	4.822	45	4383135	193.28	ug/l	99
31) Chloroprene	4.784	53	2328313	197.96	ug/l	99
32) Ethyl-t-Butyl Ether (E...	5.328	59	3932723	216.29	ug/l	99
33) c-1,2-Dichloroethene	5.453	96	1460855	192.64	ug/l	98
34) 2,2-Dichloropropane	5.453	77	1819032	211.16	ug/l	98
35) 2-Butanone	5.497	43	701706	203.00	ug/l	98
36) Propionitrile	5.540	54	208762	193.01	ug/l	94
37) Methacrylonitrile	5.753	41	830502	207.49	ug/l	95
38) Bromochloromethane	5.764	130	582200	160.34	ug/l	97
39) Tetrahydrofuran	5.872	42	433424	202.73	ug/l	99
40) Chloroform	5.889	83	2343978	176.01	ug/l	98
42) 1,1,1-Trichloroethane	6.134	97	2123107	190.41	ug/l	97
43) Cyclohexane	6.215	84	2067838	182.10	ug/l	99
44) 1,1-Dichloropropene	6.357	75	1870138	184.84	ug/l	98

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT011.D Vial: 11
Acq On : 22 Oct 2013 3:35 pm Operator: 486
Sample : 200/80PPB IC V101713A/V101813A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 14:55:24 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:53:11 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	1698828	201.84 ug/l	95
48) Benzene	6.613	78	5519397	186.61 ug/l	98
49) 1,2-Dichloroethane	6.624	62	1914533	186.00 ug/l	99
50) Tert-Amyl-Methyl Ether...	6.814	73	3561123	224.44 ug/l	95
51) Thiophene	6.874	84	2776831	201.08 ug/l	99
52) 2,2,4-Trimethyl Pentane	6.771	57	6159335	203.68 ug/l	98
53) Trichloroethene	7.451	95	1405339	187.56 ug/l	96
54) 1,2-Dichloropropane	7.707	63	1267579	188.65 ug/l	99
55) Dibromomethane	7.843	93	620232	166.76 ug/l	98
56) Methyl Methacrylate	7.914	69	944040	236.82 ug/l	95
57) 1,4-Dioxane	7.914	88	213060	2172.24 ug/l	92
58) Bromodichloromethane	8.055	83	1812454	209.23 ug/l	98
59) 2-Chloroethyl Vinyl Ether	7.707	63	1266201	192.06 ug/l	98
60) c-1,3-Dichloropropene	8.621	75	2002136	230.26 ug/l	99
62) Toluene	9.041	91	6076732	194.30 ug/l	97
63) 4-Methyl-2-Pentanone	8.828	58	532597	233.54 ug/l	92
65) t-1,3-Dichloropropene	9.302	75	1887476	234.97 ug/l	99
66) Ethyl Methacrylate	9.460	69	1753045	254.60 ug/l	99
67) 1,1,2-Trichloroethane	9.514	83	942387	187.70 ug/l	98
68) Tetrachloroethene	9.721	166	1911905	189.34 ug/l	98
69) 1,3-Dichloropropane	9.716	76	2028712	195.05 ug/l	99
70) 2-Hexanone	9.852	58	555830	244.28 ug/l	92
71) Dibromochloromethane	9.993	129	1210824	234.35 ug/l	99
72) 1,2-Dibromoethane	10.118	107	1102609	209.84 ug/l	93
73) Chlorobenzene	10.750	112	3753222	191.35 ug/l	99
74) 1,1,1,2-Tetrachloroethane	10.848	131	1257085	220.57 ug/l	98
75) Ethylbenzene	10.902	91	7225097	208.20 ug/l	97
76) p/m-Xylene	11.049	91	11667065	397.58 ug/l	98
77) o-Xylene	11.528	91	5737939	211.48 ug/l	98
78) Styrene	11.539	104	4512476	222.97 ug/l	100
79) Isopropylbenzene	11.991	105	7379955	220.97 ug/l	98
81) 1,2,3-Trichloropropane	12.372	110	523569	202.90 ug/l	97
82) Bromobenzene	12.334	156	1682300	203.09 ug/l	98
83) n-Propylbenzene	12.497	91	9215417	210.14 ug/l	100
84) t-1,4-Dichloro-2-Butene	12.399	53	491299	224.55 ug/l	84
85) 2-Chlorotoluene	12.590	91	5016397	203.67 ug/l	98
86) 1,3,5-Trimethylbenzene	12.720	105	6217479	218.65 ug/l	98
88) Bromoform	11.735	173	753397	254.68 ug/l	100
89) 1,1,2,2-Tetrachloroethane	12.323	83	1653967	199.11 ug/l	99
90) 4-Chlorotoluene	12.720	91	6021018	206.11 ug/l	100
91) 1,2,4-Trimethylbenzene	13.178	105	6338124	221.54 ug/l	100
92) tert-Butylbenzene	13.118	134	1490676	210.61 ug/l	97
93) p-Isopropyltoluene	13.575	119	7108056	217.85 ug/l	100
94) sec-Butylbenzene	13.390	105	8533667	218.77 ug/l	99
95) 1,3-Dichlorobenzene	13.504	146	3382723	198.68 ug/l	99
96) 1,4-Dichlorobenzene	13.613	146	3413544	190.56 ug/l	100
97) 1,2-Dichlorobenzene	14.070	146	3214846	201.22 ug/l	97
98) n-Butylbenzene	14.081	91	6914074	226.93 ug/l	98
99) 1,2-Dibromo-3-Chloropr...	15.007	75	370129	241.30 ug/l	97
100) 1,2,4-Trichlorobenzene	16.068	180	2455334	239.04 ug/l	97
101) Hexachloro-1,3-Butadiene	16.313	225	1529434	192.84 ug/l	98
102) Naphthalene	16.357	128	6114711	263.01 ug/l	100
103) 1,2,3-Trichlorobenzene	16.667	180	2365428	227.44 ug/l	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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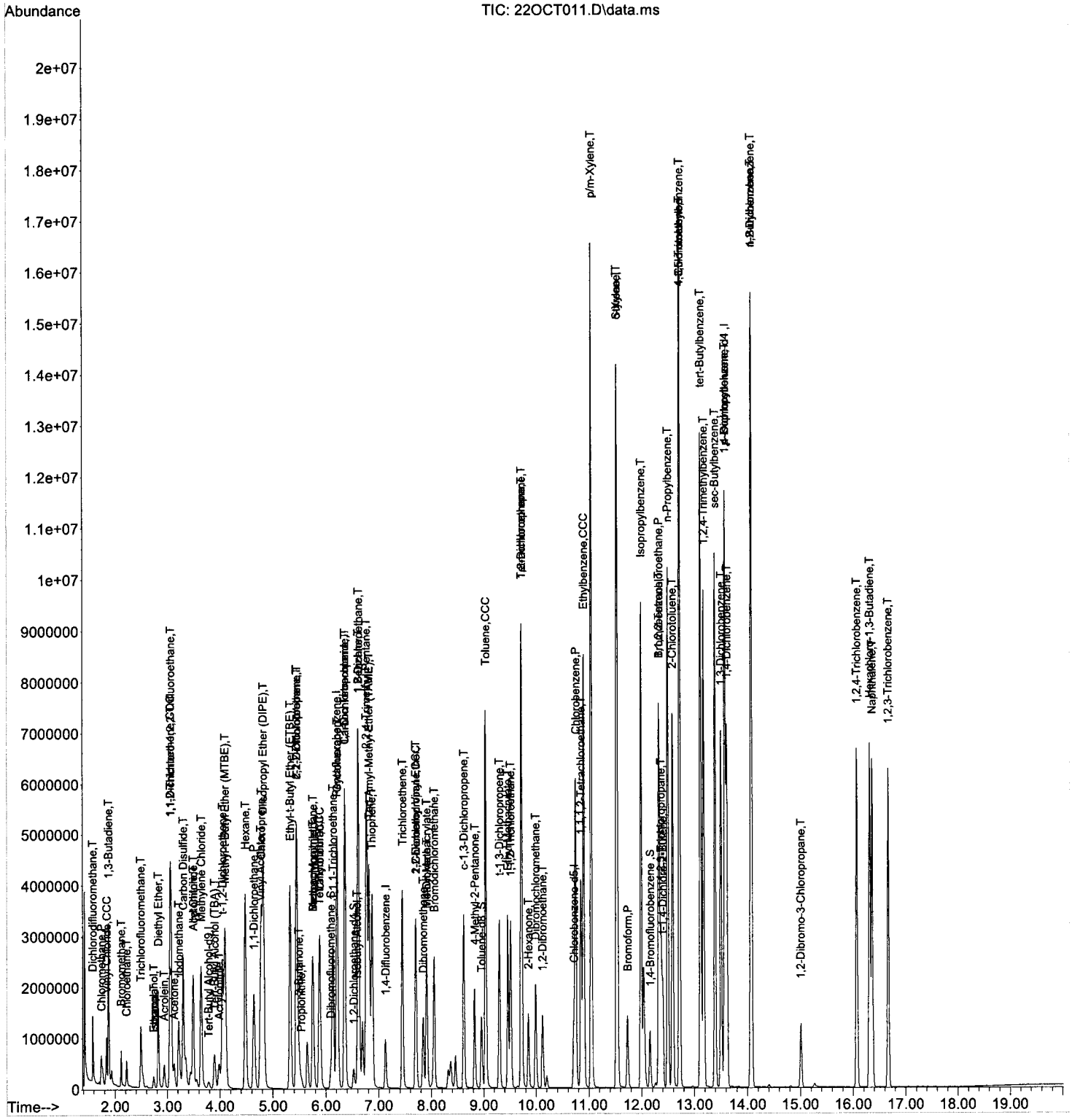
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT011.D
Acq On : 22 Oct 2013 3:35 pm
Sample : 200/80PPB IC V101713A/V101813A
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 14:55:24 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 11
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 15:53:11 2013
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT012.D Vial: 12
Acq On : 22 Oct 2013 4:11 pm Operator: 486
Sample : ICV V101713B/V101813B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 15:47:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 16:19:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.777	65	163457	250.00	ug/l	0.01
4) Pentafluorobenzene	6.205	168	536492	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	796217	50.00	ug/l	0.00
64) Chlorobenzene-d5	10.717	117	719187	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	437267	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.090	113	231856	45.87	ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 91.74%			
46) 1,2-Dichloroethane-d4	6.526	65	294387	45.24	ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 90.48%			
61) Toluene-d8	8.959	98	964187	49.01	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.02%			
80) 1,4-Bromofluorobenzene	12.160	95	371624	51.88	ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.76%			

Target Compounds						Qvalue
2) Ethanol	2.721	45	54441	435.40	ug/l	90
3) Tert-Butyl Alcohol (TBA)	3.886	59	208651	235.90	ug/l	91
5) Dichlorodifluoromethane	1.583	85	562895	55.42	ug/l	96
6) Chloromethane	1.741	50	385170	60.38	ug/l	97
7) Vinyl Chloride	1.839	62	416269	53.46	ug/l	100
8) Bromomethane	2.133	94	232123	68.88	ug/l	96
9) Chloroethane	2.242	64	249475	46.48	ug/l	94
10) 1,3-Butadiene	1.877	54	243948	44.77	ug/l	97
11) Trichlorofluoromethane	2.508	101	587076	49.80	ug/l	99
12) Diethyl Ether	2.824	45	154877	44.85	ug/l	92
13) Acetone	3.124	58	37096	46.41	ug/l	93
14) Iodomethane	3.227	142	500143	101.28	ug/l	95
15) 1,1-Dichloroethene	3.064	61	468424	44.91	ug/l	100
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	322994	44.69	ug/l	95
17) Isopropanol	2.721	45	54441	249.17	ug/l	100
18) Carbon Disulfide	3.309	76	952754	44.47	ug/l	100
19) Acetonitrile	3.494	41	406497	96.38	ug/l	98
20) Acrylonitrile	3.984	53	108765	48.22	ug/l	96
21) Allyl Chloride	3.494	76	145839	51.38	ug/l	99
22) Acrolein	2.944	56	130546	141.41	ug/l	97
23) Methylene Chloride	3.646	84	320772	47.55	ug/l	99
24) t-1,2-Dichloroethene	4.049	96	333256	49.49	ug/l	100
25) Isobutyl Alcohol	6.586	43	28096	99.66	ug/l #	83
26) Methyl-t-Butyl Ether (...	4.098	73	841220	50.51	ug/l	97
27) Hexane	4.484	57	541375	52.06	ug/l	96
28) 1,1-Dichloroethane	4.642	63	574292	44.92	ug/l	99
29) Vinyl Acetate	4.768	86	50166	63.23	ug/l	96
30) Diisopropyl Ether (DIPE)	4.822	45	1058228	49.80	ug/l	96
31) Chloroprene	4.784	53	599054	54.36	ug/l	98
32) Ethyl-t-Butyl Ether (E...	5.328	59	897369	52.67	ug/l	100
33) c-1,2-Dichloroethene	5.453	96	352745	49.64	ug/l	98
34) 2,2-Dichloropropane	5.453	77	407869	50.53	ug/l	99
35) 2-Butanone	5.497	43	165846	51.20	ug/l	99
36) Propionitrile	5.540	54	50705	50.03	ug/l	95
37) Methacrylonitrile	5.753	41	179930	47.98	ug/l	100
38) Bromochloromethane	5.764	130	152519	44.83	ug/l	99
39) Tetrahydrofuran	5.873	42	98093	48.97	ug/l	96
40) Chloroform	5.889	83	583577	46.77	ug/l	100
42) 1,1,1-Trichloroethane	6.134	97	538877	51.58	ug/l	99
43) Cyclohexane	6.215	84	541835	50.93	ug/l	97
44) 1,1-Dichloropropene	6.357	75	472841	49.88	ug/l	97

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT012.D Vial: 12
Acq On : 22 Oct 2013 4:11 pm Operator: 486
Sample : ICV V101713B/V101813B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Oct 22 15:47:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 16:19:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	421776	53.48 ug/l	96
48) Benzene	6.613	78	1352049	48.20 ug/l	100
49) 1,2-Dichloroethane	6.624	62	456584	46.77 ug/l	99
50) Tert-Amyl-Methyl Ether...	6.820	73	805313	53.52 ug/l	97
51) Thiophene	6.874	84	662687	50.60 ug/l	99
52) 2,2,4-Trimethyl Pentane	6.765	57	1530468	53.37 ug/l	99
53) Trichloroethene	7.451	95	350709	49.35 ug/l	96
54) 1,2-Dichloropropane	7.707	63	304132	47.73 ug/l	97
55) Dibromomethane	7.843	93	172087	48.79 ug/l	98
56) Methyl Methacrylate	7.914	69	215528	53.38 ug/l	93
57) 1,4-Dioxane	7.925	88	48554	521.98 ug/l	90
58) Bromodichloromethane	8.055	83	408612	49.74 ug/l	99
59) 2-Chloroethyl Vinyl Ether	7.707	63	303469	48.54 ug/l	96
60) c-1,3-Dichloropropene	8.622	75	453711	55.02 ug/l	98
62) Toluene	9.041	91	1465601	49.41 ug/l	98
63) 4-Methyl-2-Pentanone	8.828	58	117968	54.55 ug/l	90
65) t-1,3-Dichloropropene	9.302	75	380258	51.36 ug/l	98
66) Ethyl Methacrylate	9.465	69	303194	44.25 ug/l	94
67) 1,1,2-Trichloroethane	9.514	83	217630	47.03 ug/l	97
68) Tetrachloroethene	9.721	166	430979	46.31 ug/l	100
69) 1,3-Dichloropropane	9.716	76	457428	47.72 ug/l	100
70) 2-Hexanone	9.852	58	113986	54.35 ug/l	96
71) Dibromochloromethane	9.993	129	249169	52.33 ug/l	99
72) 1,2-Dibromoethane	10.124	107	242707	50.12 ug/l	93
73) Chlorobenzene	10.750	112	849218	46.97 ug/l	98
74) 1,1,1,2-Tetrachloroethane	10.848	131	282726	53.82 ug/l	98
75) Ethylbenzene	10.897	91	1672156	52.28 ug/l	97
76) p/m-Xylene	11.044	91	2611484	96.55 ug/l	99
77) o-Xylene	11.528	91	1236880	49.46 ug/l	100
78) Styrene	11.539	104	999454	53.58 ug/l	98
79) Isopropylbenzene	11.991	105	1573213	51.11 ug/l	99
81) 1,2,3-Trichloropropane	12.372	110	114055	47.96 ug/l	97
82) Bromobenzene	12.334	156	382257	50.07 ug/l	98
83) n-Propylbenzene	12.497	91	1950436	48.26 ug/l	97
84) t-1,4-Dichloro-2-Butene	12.399	53	71003	35.21 ug/l	93
85) 2-Chlorotoluene	12.584	91	1096195	48.29 ug/l	97
86) 1,3,5-Trimethylbenzene	12.721	105	1481461	56.53 ug/l	99
88) Bromoform	11.735	173	152241	57.11 ug/l	94
89) 1,1,2,2-Tetrachloroethane	12.323	83	369073	49.31 ug/l	96
90) 4-Chlorotoluene	12.721	91	1309197	49.73 ug/l	99
91) 1,2,4-Trimethylbenzene	13.178	105	1468490	56.96 ug/l	100
92) tert-Butylbenzene	13.118	134	344764	54.06 ug/l	94
93) p-Isopropyltoluene	13.575	119	1542564	52.47 ug/l	99
94) sec-Butylbenzene	13.390	105	1872547	53.27 ug/l	98
95) 1,3-Dichlorobenzene	13.504	146	740785	48.28 ug/l	98
96) 1,4-Dichlorobenzene	13.613	146	800322	49.58 ug/l	98
97) 1,2-Dichlorobenzene	14.071	146	692032	48.07 ug/l	97
98) n-Butylbenzene	14.081	91	1562371	56.91 ug/l	99
99) 1,2-Dibromo-3-Chloropr...	15.012	75	74966	54.24 ug/l	93
100) 1,2,4-Trichlorobenzene	16.068	180	504442	54.50 ug/l	97
101) Hexachloro-1,3-Butadiene	16.308	225	364276	50.97 ug/l	98
102) Naphthalene	16.362	128	1218386	58.16 ug/l	98
103) 1,2,3-Trichlorobenzene	16.667	180	523295	55.84 ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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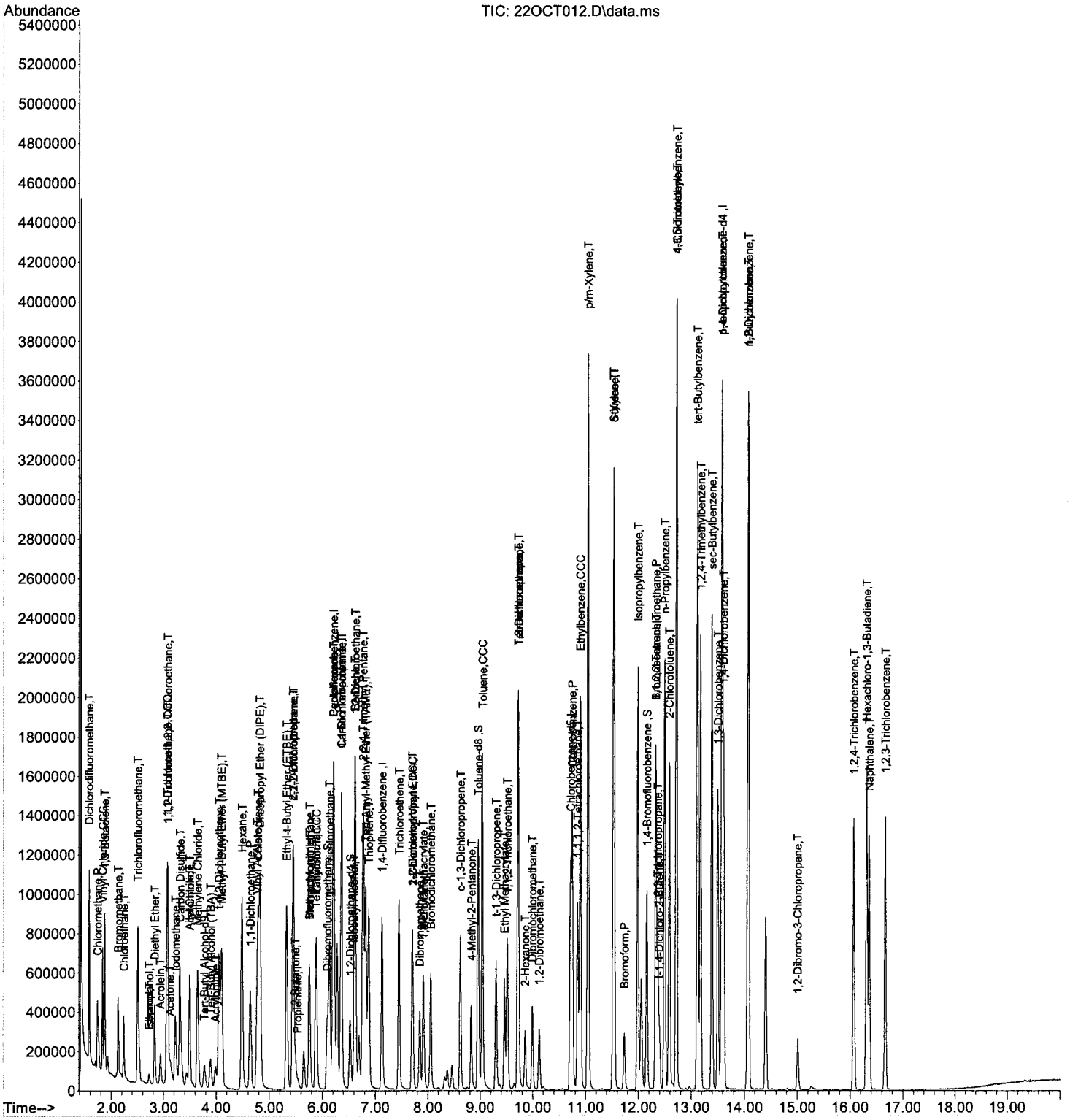
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131022\22OCT012.D
Acq On : 22 Oct 2013 4:11 pm
Sample : ICV V101713B/V101813B
Misc : V100113A
Integrator: RTE
Quant Time: Oct 22 15:47:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 12
Operator: 486
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 486
QLast Update : Tue Oct 22 16:19:42 2013
Response via : Initial Calibration



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EPA METHOD 8260B

Sample Data

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 00:40
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV031.D\08NOV031.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 1 **CLIENT SAMPLE NUMBER: QCTB-11072013**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.00	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	[
Bromomethane	0.26	1	ND	10	1	ug/L	[I
2-Butanone	0.00	1	ND	10	1	ug/L	]
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.00	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.39	1	ND	10	1	ug/L	I
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.11	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.16	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 00:40
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV031.D\08NOV031.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 1 **CLIENT SAMPLE NUMBER: QCTB-11072013**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.19	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.11	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.13	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.16	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.15	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	I
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.11	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV031.D Vial: 31
Acq On : 9 Nov 2013 12:40 am Operator: 510
Sample : 13-11-0600-1A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 16:57:28 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.722	65	78593	250.00 ug/l	-0.04
4) Pentafluorobenzene	6.205	168	415210	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	632132	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	591031	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	293592	50.00 ug/l	0.00

System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	186141	47.58 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 95.16%		
46) 1,2-Dichloroethane-d4	6.520	65	228986	45.46 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 90.92%		
61) Toluene-d8	8.959	98	744907	47.69 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.38%		
80) 1,4-Bromofluorobenzene	12.160	95	251376	42.71 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.42%		

Target Compounds					Qvalue
2) Ethanol	2.693	45	204	3.39 ug/l #	1
3) Tert-Butyl Alcohol (TBA)	3.853	59	1218	2.86 ug/l	84
5) Dichlorodifluoromethane	1.583	85	272	N.D.	
6) Chloromethane	1.741	50	1905	0.39 ug/l	65
7) Vinyl Chloride	1.882	62	120	N.D.	
8) Bromomethane	2.263	94	666	0.26 ug/l	86
9) Chloroethane	0.000	64	0	N.D. d	
10) 1,3-Butadiene	1.882	54	97	N.D.	
11) Trichlorofluoromethane	2.514	101	513	N.D.	
12) Diethyl Ether	2.824	45	348	Below Cal #	29
13) Acetone	3.134	58	1038	Below Cal #	44
14) Iodomethane	3.232	142	1331	0.35 ug/l	78
15) 1,1-Dichloroethene	3.053	61	512	N.D.	
16) 1,1,2-Trichloro-1,2,2-...	3.058	101	52	N.D.	
17) Isopropanol	2.715	45	64	0.38 ug/l	99
18) Carbon Disulfide	3.320	76	2977	Below Cal	75
19) Acetonitrile	3.483	41	261	N.D.	
20) Acrylonitrile	3.973	53	54	N.D.	
21) Allyl Chloride	3.483	76	183	Below Cal #	1
22) Acrolein	2.884	56	51	N.D.	
23) Methylene Chloride	3.652	84	978	0.19 ug/l	88
24) t-1,2-Dichloroethene	4.038	96	53	N.D.	
25) Isobutyl Alcohol	6.564	43	238	1.09 ug/l	90
26) Methyl-t-Butyl Ether (...	4.114	73	171	N.D.	
27) Hexane	4.490	57	180	N.D.	
28) 1,1-Dichloroethane	4.648	63	36	N.D.	
29) Vinyl Acetate	4.811	86	34	N.D.	
30) Diisopropyl Ether (DIPE)	4.822	45	764	N.D.	
31) Chloroprene	4.778	53	39	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.334	59	100	N.D.	
33) c-1,2-Dichloroethene	5.448	96	55	N.D.	
34) 2,2-Dichloropropane	5.437	77	113	N.D.	
35) 2-Butanone	5.486	43	97	N.D.	
36) Propionitrile	5.519	54	35	N.D.	
37) Methacrylonitrile	5.824	41	164	N.D.	
38) Bromochloromethane	5.715	130	34	N.D.	
39) Tetrahydrofuran	5.862	42	92	N.D.	
40) Chloroform	5.943	83	42	N.D.	
42) 1,1,1-Trichloroethane	6.123	97	101	N.D.	
43) Cyclohexane	6.210	84	11295	1.37 ug/l #	53
44) 1,1-Dichloropropene	6.362	75	186	N.D.	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV031.D
Acq On : 9 Nov 2013 12:40 am
Sample : 13-11-0600-1A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 16:57:28 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 31
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.357	117	189	N.D.	
48) Benzene	6.673	78	121	N.D.	
49) 1,2-Dichloroethane	6.618	62	179	N.D.	
50) Tert-Amyl-Methyl Ether...	6.809	73	82	N.D.	
51) Thiophene	6.885	84	74	N.D.	
52) 2,2,4-Trimethyl Pentane	6.776	57	1007	N.D.	
53) Trichloroethene	7.468	95	74	N.D.	
54) 1,2-Dichloropropane	7.707	63	352	N.D.	
55) Dibromomethane	7.843	93	43	N.D.	
56) Methyl Methacrylate	7.914	69	276	3.35 ug/l #	46
57) 1,4-Dioxane	7.952	88	37	0.50 ug/l #	17
58) Bromodichloromethane	8.055	83	117	N.D.	
59) 2-Chloroethyl Vinyl Ether	7.707	63	352	N.D.	
60) c-1,3-Dichloropropene	8.632	75	71	N.D.	
62) Toluene	9.035	91	3159	0.13 ug/l	72
63) 4-Methyl-2-Pentanone	8.834	58	90	N.D.	
65) t-1,3-Dichloropropene	9.291	75	169	N.D.	
66) Ethyl Methacrylate	9.454	69	76	4.61 ug/l	60
67) 1,1,2-Trichloroethane	9.493	83	46	N.D.	
68) Tetrachloroethene	9.721	166	147	N.D.	
69) 1,3-Dichloropropane	9.721	76	96	N.D.	
70) 2-Hexanone	9.857	58	35	N.D.	
71) Dibromochloromethane	9.966	129	56	N.D.	
72) 1,2-Dibromoethane	10.113	107	37	N.D.	
73) Chlorobenzene	10.750	112	1036	N.D.	
74) 1,1,1,2-Tetrachloroethane	10.853	131	67	N.D.	
75) Ethylbenzene	10.902	91	2070	N.D.	
76) p/m-Xylene	11.049	91	2500	0.11 ug/l	95
77) o-Xylene	11.534	91	908	N.D.	
78) Styrene	11.561	104	1027	N.D.	
79) Isopropylbenzene	11.997	105	1087	N.D.	
81) 1,2,3-Trichloropropane	12.372	110	83	N.D.	
82) Bromobenzene	12.334	156	541	N.D.	
83) n-Propylbenzene	12.492	91	1673	N.D.	
84) t-1,4-Dichloro-2-Butene	12.416	53	75	N.D.	
85) 2-Chlorotoluene	12.606	91	1389	N.D.	
86) 1,3,5-Trimethylbenzene	12.726	105	1203	N.D.	
88) Bromoform	11.757	173	55	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.427	83	152	N.D.	
90) 4-Chlorotoluene	12.715	91	1366	N.D.	
91) 1,2,4-Trimethylbenzene	13.172	105	1174	N.D.	
92) tert-Butylbenzene	13.112	134	79	N.D.	
93) p-Isopropyltoluene	13.515	119	112	N.D.	
94) sec-Butylbenzene	13.406	105	1567	N.D.	
95) 1,3-Dichlorobenzene	13.510	146	960	N.D.	
96) 1,4-Dichlorobenzene	13.608	146	1746	0.16 ug/l #	68
97) 1,2-Dichlorobenzene	14.065	146	1094	0.11 ug/l	96
98) n-Butylbenzene	14.071	91	1202	N.D.	
99) 1,2-Dibromo-3-Chloropr...	15.012	75	35	N.D.	
100) 1,2,4-Trichlorobenzene	16.063	180	941	0.15 ug/l #	73
101) Hexachloro-1,3-Butadiene	16.313	225	894	0.19 ug/l	69
102) Naphthalene	16.357	128	1519	0.11 ug/l	69
103) 1,2,3-Trichlorobenzene	16.673	180	985	0.16 ug/l #	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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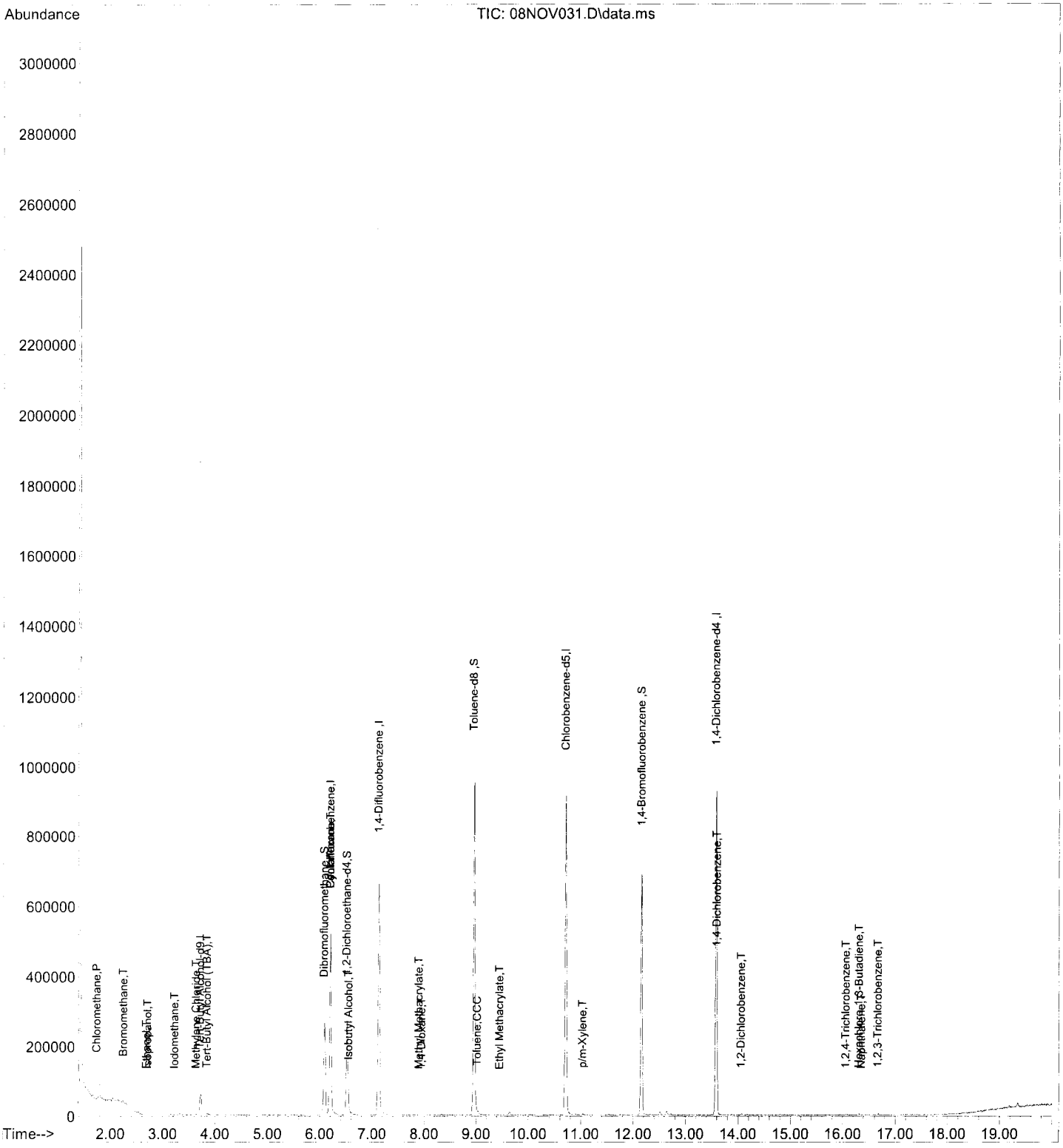
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV031.D
Acq On : 9 Nov 2013 12:40 am
Sample : 13-11-0600-1A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 16:57:28 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 31
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 06:38
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV043.D\08NOV043.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 2 **CLIENT SAMPLE NUMBER: 13-GW-27-32**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.10	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.22	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	0.91	1	ND	10	1	ug/L	I
2-Butanone	1.1	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.61	1	ND	5.0	1	ug/L	
Chloroform	0.83	1	ND	1.0	1	ug/L	
Chloromethane	0.35	1	ND	10	1	ug/L	I
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 06:38
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV043.D\08NOV043.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 2 **CLIENT SAMPLE NUMBER: 13-GW-27-32**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.00	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.13	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	I
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.00	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV043.D
Acq On : 9 Nov 2013 6:38 am
Sample : 13-11-0600-2A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:58:53 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 43
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	114414	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	428163	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	660049	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	628175	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	327024	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	213689	52.97 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 105.94%		
46) 1,2-Dichloroethane-d4	6.526	65	258942	49.86 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 99.72%		
61) Toluene-d8	8.959	98	781024	47.89 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.78%		
80) 1,4-Bromofluorobenzene	12.160	95	259436	41.47 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 82.94%		

Target Compounds					Qvalue
2) Ethanol	2.715	45	321	3.67 ug/l #	1
3) Tert-Butyl Alcohol (TBA)	3.858	59	11177	18.05 ug/l #	51
5) Dichlorodifluoromethane	1.578	85	439	N.D.	
6) Chloromethane	1.741	50	1788	0.35 ug/l	51
7) Vinyl Chloride	1.833	62	249	N.D.	
8) Bromomethane	2.149	94	2450	0.91 ug/l	85
9) Chloroethane	2.253	64	2596	0.61 ug/l	67
10) 1,3-Butadiene	1.866	54	1918	0.44 ug/l #	67
11) Trichlorofluoromethane	2.514	101	839	N.D.	
12) Diethyl Ether	2.830	45	459	Below Cal #	31
13) Acetone	3.129	58	3859	Below Cal #	59
14) Iodomethane	3.232	142	364	N.D.	
15) 1,1-Dichloroethene	3.053	61	818	N.D.	
16) 1,1,2-Trichloro-1,2,2-...	3.069	101	64	N.D.	
17) Isopropanol	2.688	45	1593	9.14 ug/l	99
18) Carbon Disulfide	3.314	76	4070	Below Cal	32
19) Acetonitrile	3.466	41	233	N.D.	
20) Acrylonitrile	3.973	53	105	N.D.	
21) Allyl Chloride	3.510	76	340	Below Cal #	1
22) Acrolein	2.889	56	516	0.70 ug/l	76
23) Methylene Chloride	3.657	84	155	N.D.	
24) t-1,2-Dichloroethene	4.049	96	174	N.D.	
25) Isobutyl Alcohol	6.558	43	306	1.36 ug/l #	19
26) Methyl-t-Butyl Ether (...	4.092	73	250	N.D.	
27) Hexane	4.479	57	2617	0.32 ug/l	83
28) 1,1-Dichloroethane	4.637	63	551	N.D.	
29) Vinyl Acetate	4.800	86	35	N.D.	
30) Diisopropyl Ether (DIPE)	4.822	45	442	N.D.	
31) Chloroprene	4.784	53	83	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.323	59	86	N.D.	
33) c-1,2-Dichloroethene	5.448	96	256	N.D.	
34) 2,2-Dichloropropane	5.442	77	549	N.D.	
35) 2-Butanone	5.486	43	2846	1.10 ug/l	59
36) Propionitrile	5.546	54	96	0.12 ug/l	64
37) Methacrylonitrile	5.677	41	187	N.D.	
38) Bromochloromethane	5.791	130	52	N.D.	
39) Tetrahydrofuran	5.867	42	211	0.13 ug/l #	61
40) Chloroform	5.883	83	8286	0.83 ug/l	85
42) 1,1,1-Trichloroethane	6.134	97	41	N.D.	
43) Cyclohexane	6.205	84	11180	1.32 ug/l #	40
44) 1,1-Dichloropropene	6.292	75	319	N.D.	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV043.D
Acq On : 9 Nov 2013 6:38 am
Sample : 13-11-0600-2A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:58:53 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 43
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.352	117	182	N.D.	
48) Benzene	6.607	78	2432	0.10 ug/l	98
49) 1,2-Dichloroethane	6.629	62	36	N.D.	
50) Tert-Amyl-Methyl Ether...	6.863	73	83	N.D.	
51) Thiophene	6.874	84	61	N.D.	
52) 2,2,4-Trimethyl Pentane	6.765	57	473	N.D.	
53) Trichloroethene	7.457	95	307	N.D.	
54) 1,2-Dichloropropane	7.620	63	33	N.D.	
55) Dibromomethane	7.843	93	50	N.D.	
56) Methyl Methacrylate	7.908	69	331	3.36 ug/l #	56
57) 1,4-Dioxane	7.914	88	36	0.47 ug/l #	17
58) Bromodichloromethane	8.044	83	1526	0.22 ug/l	93
59) 2-Chloroethyl Vinyl Ether	7.685	63	56	N.D.	
60) c-1,3-Dichloropropene	8.649	75	109	N.D.	
62) Toluene	9.035	91	3257	0.13 ug/l	96
63) 4-Methyl-2-Pentanone	8.828	58	47	N.D.	
65) t-1,3-Dichloropropene	9.237	75	417	N.D.	
66) Ethyl Methacrylate	9.454	69	121	4.61 ug/l	60
67) 1,1,2-Trichloroethane	9.520	83	107	N.D.	
68) Tetrachloroethene	9.727	166	492	N.D.	
69) 1,3-Dichloropropane	9.716	76	79	N.D.	
70) 2-Hexanone	9.857	58	56	N.D.	
71) Dibromochloromethane	9.993	129	66	N.D.	
72) 1,2-Dibromoethane	10.118	107	81	N.D.	
73) Chlorobenzene	10.739	112	314	N.D.	
74) 1,1,1,2-Tetrachloroethane	10.940	131	77	N.D.	
75) Ethylbenzene	10.902	91	1321	N.D.	
76) p/m-Xylene	11.044	91	1970	N.D.	
77) o-Xylene	11.523	91	673	N.D.	
78) Styrene	11.561	104	145	N.D.	
79) Isopropylbenzene	11.986	105	548	N.D.	
81) 1,2,3-Trichloropropane	12.394	110	47	N.D.	
82) Bromobenzene	12.318	156	47	N.D.	
83) n-Propylbenzene	12.503	91	1076	N.D.	
84) t-1,4-Dichloro-2-Butene	12.405	53	73	N.D.	
85) 2-Chlorotoluene	12.590	91	503	N.D.	
86) 1,3,5-Trimethylbenzene	12.726	105	1260	N.D.	
88) Bromoform	11.681	173	74	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.307	83	132	N.D.	
90) 4-Chlorotoluene	12.715	91	515	N.D.	
91) 1,2,4-Trimethylbenzene	13.178	105	1377	N.D.	
92) tert-Butylbenzene	13.118	134	40	N.D.	
93) p-Isopropyltoluene	13.570	119	1252	N.D.	
94) sec-Butylbenzene	13.390	105	1151	N.D.	
95) 1,3-Dichlorobenzene	13.504	146	579	N.D.	
96) 1,4-Dichlorobenzene	13.608	146	1030	N.D.	
97) 1,2-Dichlorobenzene	14.065	146	663	N.D.	
98) n-Butylbenzene	14.071	91	905	N.D.	
99) 1,2-Dibromo-3-Chloropr...	15.034	75	37	N.D.	
100) 1,2,4-Trichlorobenzene	16.074	180	471	N.D.	
101) Hexachloro-1,3-Butadiene	16.308	225	649	0.12 ug/l #	43
102) Naphthalene	16.357	128	1089	N.D.	
103) 1,2,3-Trichlorobenzene	16.651	180	531	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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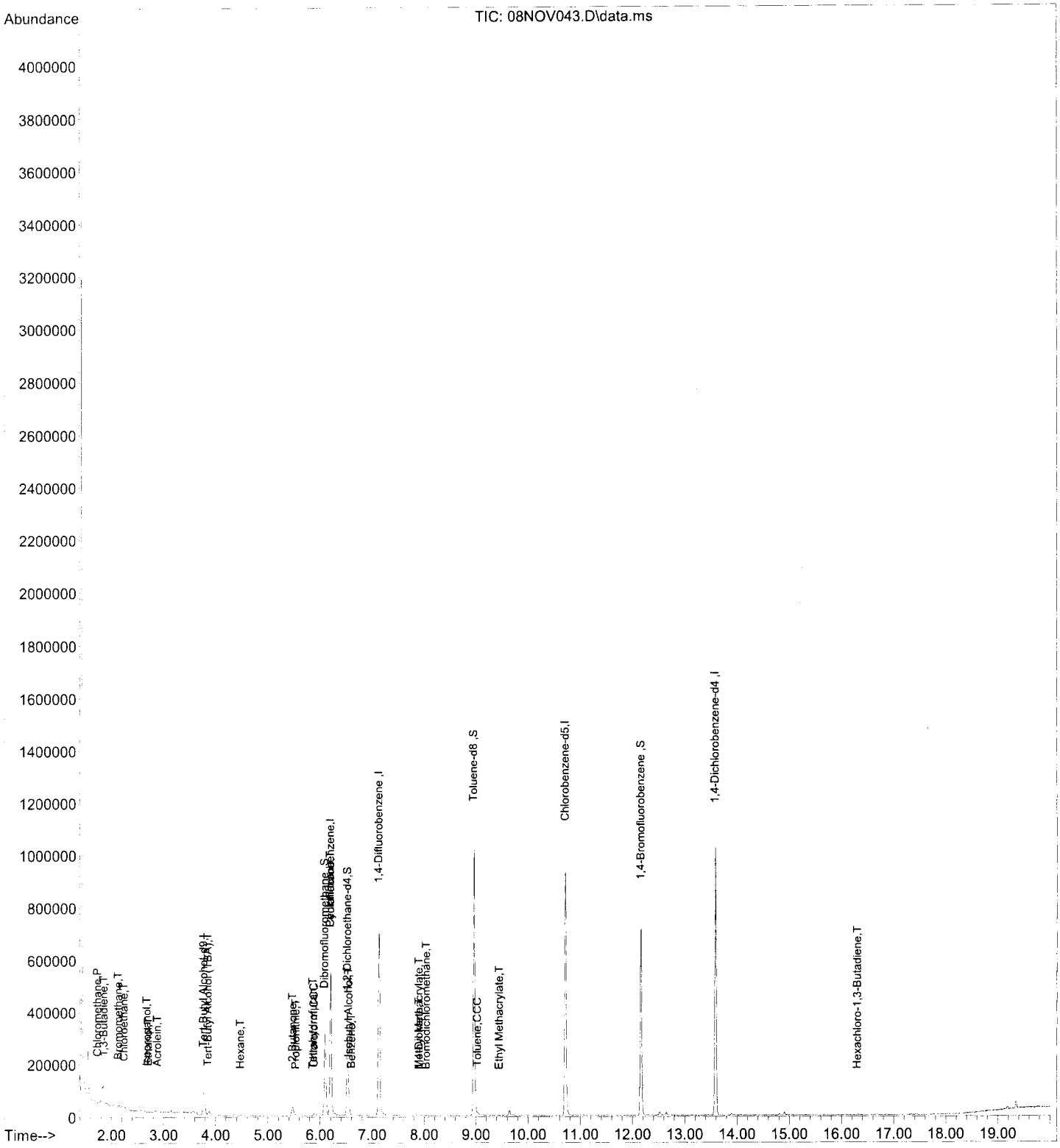
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV043.D
Acq On : 9 Nov 2013 6:38 am
Sample : 13-11-0600-2A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:58:53 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 43
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 07:08
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV044.D\08NOV044.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 11-GW-31-36**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.11	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	1.2	1	ND	10	1	ug/L	I
2-Butanone	0.75	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.60	1	ND	5.0	1	ug/L	
Chloroform	0.18	1	ND	1.0	1	ug/L	
Chloromethane	0.49	1	ND	10	1	ug/L	I
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.11	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 07:08
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV044.D\08NOV044.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

4 **CLIENT SAMPLE NUMBER: 11-GW-31-36**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.10	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.00	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.11	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	I
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.00	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV044.D
Acq On : 9 Nov 2013 7:08 am
Sample : 13-11-0600-4A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:59:02 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 44
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	109708	250.00 ug/l	0.00
4) Pentafluorobenzene	6.205	168	423849	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	647569	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	629417	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	320267	50.00 ug/l	0.00

System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	211037	52.84 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 105.68%		
46) 1,2-Dichloroethane-d4	6.520	65	256518	49.89 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 99.78%		
61) Toluene-d8	8.959	98	764977	47.81 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.62%		
80) 1,4-Bromofluorobenzene	12.160	95	253666	40.47 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 80.94%		

Target Compounds					Qvalue
2) Ethanol	2.693	45	1420	16.92 ug/l	71
3) Tert-Butyl Alcohol (TBA)	3.875	59	2719	4.58 ug/l	74
5) Dichlorodifluoromethane	1.588	85	297	N.D.	
6) Chloromethane	1.741	50	2471	0.49 ug/l	64
7) Vinyl Chloride	1.833	62	158	N.D.	
8) Bromomethane	2.149	94	3219	1.21 ug/l	85
9) Chloroethane	2.247	64	2563	0.60 ug/l	73
10) 1,3-Butadiene	1.964	54	158	N.D.	
11) Trichlorofluoromethane	2.519	101	720	N.D.	
12) Diethyl Ether	2.802	45	854	Below Cal #	1
13) Acetone	3.123	58	2164	Below Cal #	59
14) Iodomethane	3.227	142	601	0.15 ug/l #	32
15) 1,1-Dichloroethene	3.031	61	83	N.D.	
16) 1,1,2-Trichloro-1,2,2-...	3.069	101	100	N.D.	
17) Isopropanol	2.693	45	1420	8.23 ug/l	99
18) Carbon Disulfide	3.319	76	3566	Below Cal	85
19) Acetonitrile	3.505	41	431	0.13 ug/l	70
20) Acrylonitrile	3.994	53	272	0.15 ug/l #	18
21) Allyl Chloride	3.505	76	129	Below Cal #	46
22) Acrolein	2.971	56	348	0.48 ug/l	85
23) Methylene Chloride	3.635	84	551	0.10 ug/l #	19
24) t-1,2-Dichloroethene	4.043	96	136	N.D.	
25) Isobutyl Alcohol	6.586	43	809	3.63 ug/l #	69
26) Methyl-t-Butyl Ether (...	4.103	73	548	N.D.	
27) Hexane	4.490	57	1057	0.13 ug/l #	62
28) 1,1-Dichloroethane	4.642	63	452	N.D.	
29) Vinyl Acetate	4.800	86	34	N.D.	
30) Diisopropyl Ether (DIPE)	4.822	45	210	N.D.	
31) Chloroprene	4.773	53	34	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.328	59	87	N.D.	
33) c-1,2-Dichloroethene	5.453	96	89	N.D.	
34) 2,2-Dichloropropane	5.453	77	691	0.11 ug/l	53
35) 2-Butanone	5.497	43	1929	0.75 ug/l	58
36) Propionitrile	5.540	54	107	0.13 ug/l	64
37) Methacrylonitrile	5.753	41	44	N.D.	
38) Bromochloromethane	5.764	130	43	N.D.	
39) Tetrahydrofuran	5.878	42	156	N.D.	
40) Chloroform	5.889	83	1799	0.18 ug/l	72
42) 1,1,1-Trichloroethane	6.134	97	127	N.D.	
43) Cyclohexane	6.205	84	10921	1.30 ug/l #	47
44) 1,1-Dichloropropene	6.357	75	118	N.D.	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV044.D Vial: 44
Acq On : 9 Nov 2013 7:08 am Operator: 510
Sample : 13-11-0600-4A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:59:02 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.422	117	137	N.D.	
48) Benzene	6.613	78	2526	0.11 ug/l	87
49) 1,2-Dichloroethane	6.629	62	127	N.D.	
50) Tert-Amyl-Methyl Ether...	6.809	73	98	N.D.	
51) Thiophene	6.890	84	125	N.D.	
52) 2,2,4-Trimethyl Pentane	6.776	57	492	N.D.	
53) Trichloroethene	7.440	95	234	N.D.	
54) 1,2-Dichloropropane	7.810	63	45	N.D.	
55) Dibromomethane	7.865	93	81	N.D.	
56) Methyl Methacrylate	7.908	69	853	3.51 ug/l #	19
57) 1,4-Dioxane	8.044	88	44	0.58 ug/l	90
58) Bromodichloromethane	8.050	83	89	N.D.	
59) 2-Chloroethyl Vinyl Ether	7.696	63	100	N.D.	
60) c-1,3-Dichloropropene	8.616	75	149	N.D.	
62) Toluene	9.030	91	2611	0.11 ug/l	88
63) 4-Methyl-2-Pentanone	8.823	58	47	N.D.	
65) t-1,3-Dichloropropene	9.313	75	66	N.D.	
66) Ethyl Methacrylate	9.498	69	60	4.61 ug/l	60
67) 1,1,2-Trichloroethane	9.509	83	51	N.D.	
68) Tetrachloroethene	9.716	166	494	N.D.	
69) 1,3-Dichloropropane	9.727	76	108	N.D.	
70) 2-Hexanone	9.835	58	35	N.D.	
71) Dibromochloromethane	9.988	129	86	N.D.	
72) 1,2-Dibromoethane	10.091	107	40	N.D.	
73) Chlorobenzene	10.717	112	111	N.D.	
74) 1,1,1,2-Tetrachloroethane	10.832	131	36	N.D.	
75) Ethylbenzene	10.891	91	1546	N.D.	
76) p/m-Xylene	11.038	91	1609	N.D.	
77) o-Xylene	11.539	91	669	N.D.	
78) Styrene	11.539	104	136	N.D.	
79) Isopropylbenzene	11.980	105	657	N.D.	
81) 1,2,3-Trichloropropane	12.388	110	52	N.D.	
82) Bromobenzene	12.339	156	317	N.D.	
83) n-Propylbenzene	12.486	91	369	N.D.	
84) t-1,4-Dichloro-2-Butene	12.394	53	127	N.D.	
85) 2-Chlorotoluene	12.595	91	644	N.D.	
86) 1,3,5-Trimethylbenzene	12.720	105	1159	N.D.	
88) Bromoform	11.730	173	122	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.318	83	127	N.D.	
90) 4-Chlorotoluene	12.710	91	173	N.D.	
91) 1,2,4-Trimethylbenzene	13.183	105	1299	N.D.	
92) tert-Butylbenzene	13.118	134	176	N.D.	
93) p-Isopropyltoluene	13.619	119	78	N.D.	
94) sec-Butylbenzene	13.385	105	822	N.D.	
95) 1,3-Dichlorobenzene	13.521	146	497	N.D.	
96) 1,4-Dichlorobenzene	13.613	146	760	N.D.	
97) 1,2-Dichlorobenzene	14.065	146	549	N.D.	
98) n-Butylbenzene	14.087	91	972	N.D.	
99) 1,2-Dibromo-3-Chloropr...	15.018	75	38	N.D.	
100) 1,2,4-Trichlorobenzene	16.079	180	278	N.D.	
101) Hexachloro-1,3-Butadiene	16.319	225	325	N.D.	
102) Naphthalene	16.357	128	1153	N.D.	
103) 1,2,3-Trichlorobenzene	16.683	180	576	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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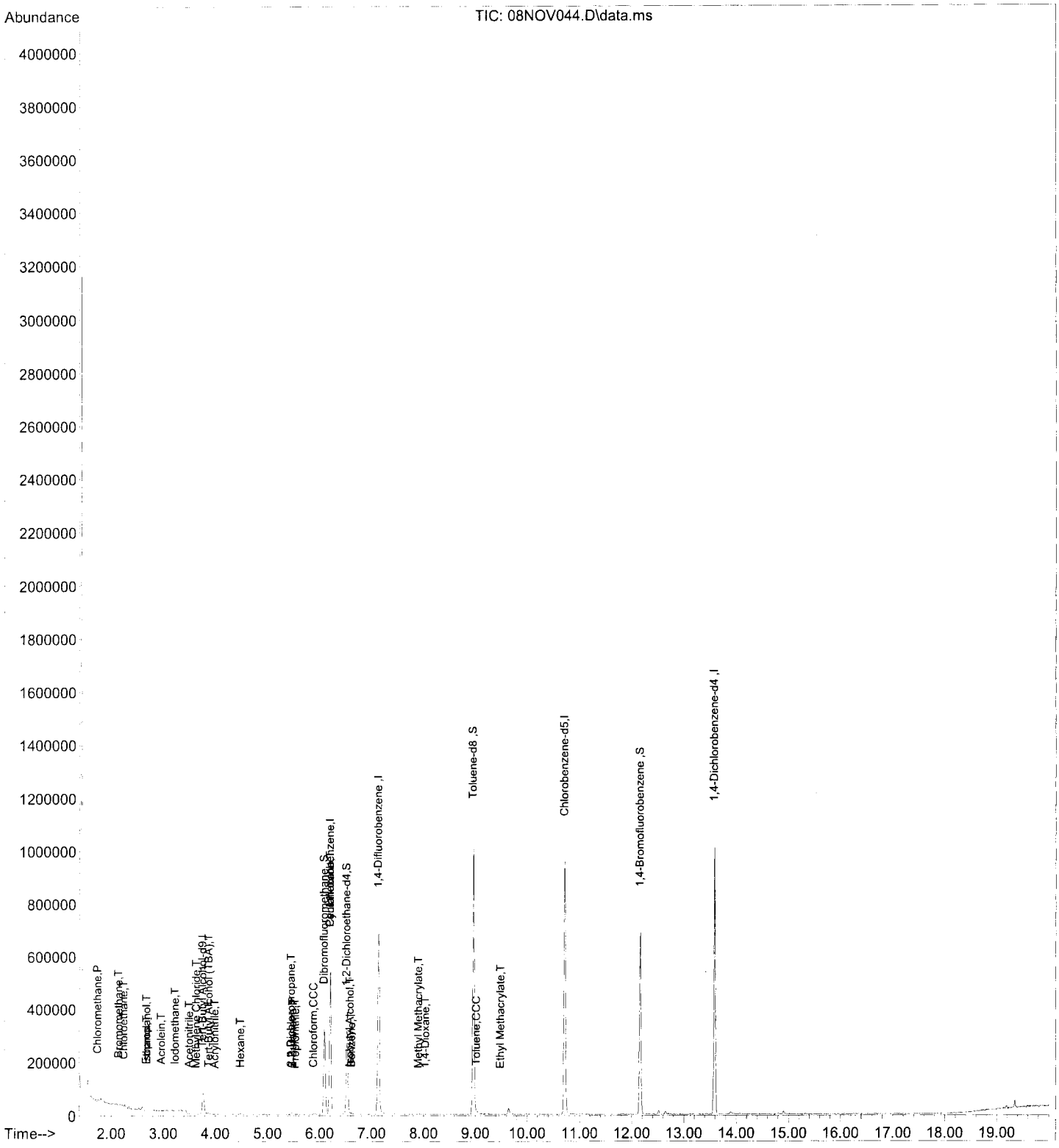
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV044.D
Acq On : 9 Nov 2013 7:08 am
Sample : 13-11-0600-4A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:59:02 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 44
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 07:38
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV045.D\08NOV045.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 5 **CLIENT SAMPLE NUMBER: 110-GW-31-36**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.10	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	1.1	1	ND	10	1	ug/L	I
2-Butanone	0.61	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	2.1	1	ND	5.0	1	ug/L	
Chloroform	0.18	1	ND	1.0	1	ug/L	
Chloromethane	0.45	1	ND	10	1	ug/L	I
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.12	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.13	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 07:38
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV045.D\08NOV045.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 5 **CLIENT SAMPLE NUMBER: 110-GW-31-36**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.13	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.00	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.12	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	I
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.00	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV045.D
Acq On : 9 Nov 2013 7:38 am
Sample : 13-11-0600-5A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:59:15 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 45
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.760	65	104339	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	409214	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	631260	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	600049	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	312073	50.00 ug/l	0.00

System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	207725	53.87 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 107.74%		
46) 1,2-Dichloroethane-d4	6.520	65	247669	49.89 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 99.78%		
61) Toluene-d8	8.959	98	744126	47.71 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.42%		
80) 1,4-Bromofluorobenzene	12.160	95	245858	41.14 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 82.28%		

Target Compounds					Qvalue
2) Ethanol	2.715	45	410	5.14 ug/l #	48
3) Tert-Butyl Alcohol (TBA)	3.864	59	1806	3.20 ug/l	80
5) Dichlorodifluoromethane	1.583	85	378	N.D.	
6) Chloromethane	1.741	50	2172	0.45 ug/l	65
7) Vinyl Chloride	1.904	62	47	N.D.	
8) Bromomethane	2.154	94	2850	1.11 ug/l	94
9) Chloroethane	2.291	64	8516	2.08 ug/l	45
10) 1,3-Butadiene	1.882	54	468	0.11 ug/l #	10
11) Trichlorofluoromethane	2.688	101	129	N.D.	
12) Diethyl Ether	2.835	45	1087	Below Cal #	28
13) Acetone	3.129	58	2004	Below Cal #	40
14) Iodomethane	3.232	142	609	0.16 ug/l	89
15) 1,1-Dichloroethene	3.053	61	964	0.12 ug/l #	46
16) 1,1,2-Trichloro-1,2,2-...	3.074	101	147	N.D.	
17) Isopropanol	2.715	45	362	2.17 ug/l	99
18) Carbon Disulfide	3.314	76	3597	Below Cal	100
19) Acetonitrile	3.494	41	461	0.14 ug/l	69
20) Acrylonitrile	3.983	53	56	N.D.	
21) Allyl Chloride	3.526	76	33	Below Cal #	1
22) Acrolein	3.036	56	391	0.56 ug/l	86
23) Methylene Chloride	3.646	84	693	0.13 ug/l	76
24) t-1,2-Dichloroethene	4.054	96	98	N.D.	
25) Isobutyl Alcohol	6.580	43	881	4.10 ug/l #	78
26) Methyl-t-Butyl Ether (...	4.071	73	74	N.D.	
27) Hexane	4.490	57	645	N.D.	
28) 1,1-Dichloroethane	4.544	63	47	N.D.	
29) Vinyl Acetate	4.784	86	48	N.D.	
30) Diisopropyl Ether (DIPE)	4.822	45	339	N.D.	
31) Chloroprene	4.800	53	41	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.339	59	34	N.D.	
33) c-1,2-Dichloroethene	5.470	96	94	N.D.	
34) 2,2-Dichloropropane	5.464	77	822	0.13 ug/l	53
35) 2-Butanone	5.491	43	1517	0.61 ug/l	51
36) Propionitrile	5.540	54	83	0.11 ug/l #	19
37) Methacrylonitrile	5.764	41	42	N.D.	
38) Bromochloromethane	5.823	130	52	N.D.	
39) Tetrahydrofuran	5.862	42	78	N.D.	
40) Chloroform	5.894	83	1699	0.18 ug/l #	51
42) 1,1,1-Trichloroethane	6.101	97	46	N.D.	
43) Cyclohexane	6.204	84	9691	1.19 ug/l #	36
44) 1,1-Dichloropropene	6.346	75	289	N.D.	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV045.D Vial: 45
Acq On : 9 Nov 2013 7:38 am Operator: 510
Sample : 13-11-0600-5A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:59:15 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.341	117	47	N.D.	
48) Benzene	6.607	78	2233	0.10 ug/l	82
49) 1,2-Dichloroethane	6.629	62	249	N.D.	
50) Tert-Amyl-Methyl Ether...	6.814	73	67	N.D.	
51) Thiophene	6.879	84	34	N.D.	
52) 2,2,4-Trimethyl Pentane	6.760	57	253	N.D.	
53) Trichloroethene	7.451	95	86	N.D.	
54) 1,2-Dichloropropane	7.669	63	221	N.D.	
55) Dibromomethane	7.919	93	73	N.D.	
56) Methyl Methacrylate	7.914	69	720	3.48 ug/l #	33
57) 1,4-Dioxane	7.908	88	110	1.49 ug/l #	17
58) Bromodichloromethane	8.044	83	187	N.D.	
59) 2-Chloroethyl Vinyl Ether	7.691	63	241	N.D.	
60) c-1,3-Dichloropropene	8.643	75	44	N.D.	
62) Toluene	9.030	91	2724	0.12 ug/l #	48
63) 4-Methyl-2-Pentanone	8.823	58	45	N.D.	
65) t-1,3-Dichloropropene	9.275	75	126	N.D.	
66) Ethyl Methacrylate	9.465	69	40	4.60 ug/l	60
67) 1,1,2-Trichloroethane	9.509	83	98	N.D.	
68) Tetrachloroethene	9.721	166	407	N.D.	
69) 1,3-Dichloropropane	9.710	76	67	N.D.	
70) 2-Hexanone	9.846	58	96	N.D.	
71) Dibromochloromethane	10.031	129	39	N.D.	
72) 1,2-Dibromoethane	10.124	107	40	N.D.	
73) Chlorobenzene	10.739	112	599	N.D.	
74) 1,1,1,2-Tetrachloroethane	10.837	131	81	N.D.	
75) Ethylbenzene	10.908	91	1139	N.D.	
76) p/m-Xylene	11.049	91	1339	N.D.	
77) o-Xylene	11.534	91	472	N.D.	
78) Styrene	11.539	104	233	N.D.	
79) Isopropylbenzene	11.991	105	387	N.D.	
81) 1,2,3-Trichloropropane	12.372	110	45	N.D.	
82) Bromobenzene	12.307	156	42	N.D.	
83) n-Propylbenzene	12.492	91	1085	N.D.	
84) t-1,4-Dichloro-2-Butene	12.399	53	89	N.D.	
85) 2-Chlorotoluene	12.579	91	456	N.D.	
86) 1,3,5-Trimethylbenzene	12.710	105	1501	N.D.	
88) Bromoform	11.784	173	36	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.334	83	68	N.D.	
90) 4-Chlorotoluene	12.715	91	683	N.D.	
91) 1,2,4-Trimethylbenzene	13.161	105	1131	N.D.	
92) tert-Butylbenzene	13.112	134	111	N.D.	
93) p-Isopropyltoluene	13.613	119	39	N.D.	
94) sec-Butylbenzene	13.401	105	699	N.D.	
95) 1,3-Dichlorobenzene	13.499	146	517	N.D.	
96) 1,4-Dichlorobenzene	13.613	146	692	N.D.	
97) 1,2-Dichlorobenzene	14.065	146	413	N.D.	
98) n-Butylbenzene	14.076	91	776	N.D.	
99) 1,2-Dibromo-3-Chloropr...	15.023	75	41	N.D.	
100) 1,2,4-Trichlorobenzene	16.079	180	241	N.D.	
101) Hexachloro-1,3-Butadiene	16.308	225	539	0.11 ug/l	66
102) Naphthalene	16.368	128	1180	N.D.	
103) 1,2,3-Trichlorobenzene	16.672	180	182	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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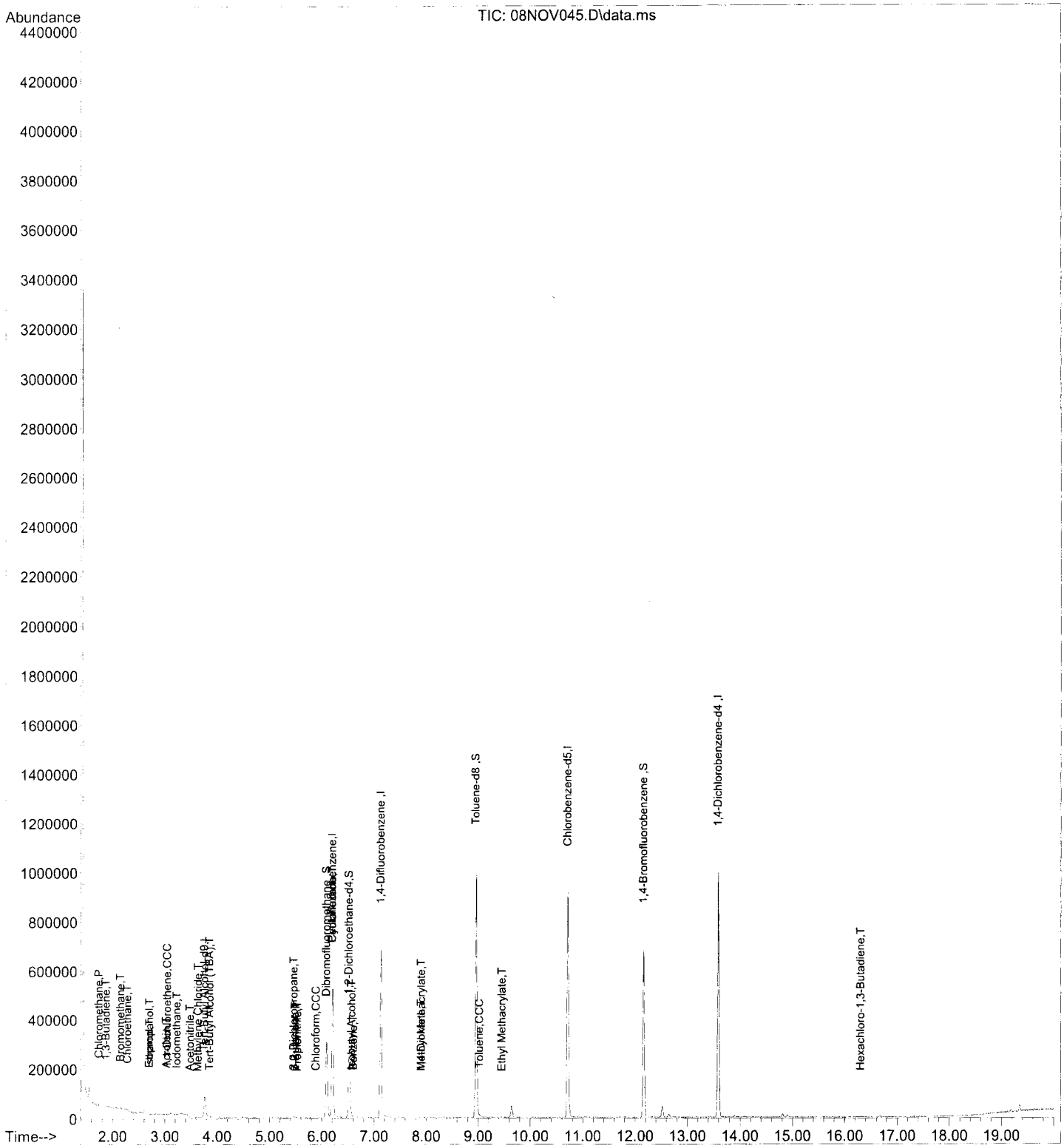
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV045.D
Acq On : 9 Nov 2013 7:38 am
Sample : 13-11-0600-5A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:59:15 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 45
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 08:08
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV046.D\08NOV046.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

 # 6 **CLIENT SAMPLE NUMBER: 1-GW-19-24**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.21	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	1.2	1	ND	10	1	ug/L	I
2-Butanone	0.49	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.47	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.29	1	ND	10	1	ug/L	I
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.27	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0600
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 08:08
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV046.D\08NOV046.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

6 **CLIENT SAMPLE NUMBER: 1-GW-19-24**

LCS/MB BATCH: 131108L03
MS/MSD BATCH: 131108S03
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.00	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.13	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.14	1	ND	10	1	ug/L	I
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.00	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV046.D Vial: 46
Acq On : 9 Nov 2013 8:08 am Operator: 510
Sample : 13-11-0600-6A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:59:23 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.771	65	106849	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	413946	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	634398	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	610661	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	312732	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	207666	53.24 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 106.48%		
46) 1,2-Dichloroethane-d4	6.520	65	251031	49.99 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 99.98%		
61) Toluene-d8	8.959	98	754490	48.14 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.28%		
80) 1,4-Bromofluorobenzene	12.160	95	251251	41.31 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 82.62%		

Target Compounds					Qvalue
2) Ethanol	2.699	45	1326	16.22 ug/l #	50
3) Tert-Butyl Alcohol (TBA)	3.869	59	5346	9.25 ug/l #	56
5) Dichlorodifluoromethane	1.583	85	343	N.D.	
6) Chloromethane	1.741	50	1415	0.29 ug/l	55
7) Vinyl Chloride	1.839	62	333	N.D.	
8) Bromomethane	2.155	94	3043	1.17 ug/l	81
9) Chloroethane	2.247	64	1929	0.47 ug/l	76
10) 1,3-Butadiene	1.877	54	151	N.D.	
11) Trichlorofluoromethane	2.508	101	706	N.D.	
12) Diethyl Ether	2.835	45	521	Below Cal #	38
13) Acetone	3.118	58	2884	Below Cal #	22
14) Iodomethane	3.472	142	105	N.D.	
15) 1,1-Dichloroethene	3.064	61	734	N.D.	
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	34	N.D.	
17) Isopropanol	2.699	45	2612	15.49 ug/l	99
18) Carbon Disulfide	3.319	76	3137	Below Cal	29
19) Acetonitrile	3.488	41	331	0.10 ug/l	26
20) Acrylonitrile	3.967	53	106	N.D.	
21) Allyl Chloride	3.510	76	146	Below Cal #	1
22) Acrolein	3.075	56	229	0.32 ug/l	92
23) Methylene Chloride	3.657	84	297	N.D.	
24) t-1,2-Dichloroethene	4.038	96	147	N.D.	
25) Isobutyl Alcohol	6.575	43	522	2.40 ug/l #	52
26) Methyl-t-Butyl Ether (...	4.043	73	40	N.D.	
27) Hexane	4.484	57	560	N.D.	
28) 1,1-Dichloroethane	4.653	63	113	N.D.	
29) Vinyl Acetate	4.904	86	87	0.14 ug/l #	1
30) Diisopropyl Ether (DIPE)	4.816	45	90	N.D.	
31) Chloroprene	4.778	53	76	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.317	59	111	N.D.	
33) c-1,2-Dichloroethene	5.453	96	186	N.D.	
34) 2,2-Dichloropropane	5.464	77	1658	0.27 ug/l	53
35) 2-Butanone	5.502	43	1215	0.49 ug/l	90
36) Propionitrile	5.524	54	98	0.13 ug/l #	7
37) Methacrylonitrile	5.747	41	167	N.D.	
38) Bromochloromethane	0.000	130	0	N.D.	
39) Tetrahydrofuran	5.862	42	126	N.D.	
40) Chloroform	5.883	83	407	N.D.	
42) 1,1,1-Trichloroethane	6.117	97	47	N.D.	
43) Cyclohexane	6.205	84	10990	1.34 ug/l #	55
44) 1,1-Dichloropropene	6.368	75	306	N.D.	

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Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV046.D Vial: 46
Acq On : 9 Nov 2013 8:08 am Operator: 510
Sample : 13-11-0600-6A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:59:23 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.368	117	123	N.D.	
48) Benzene	6.618	78	4679	0.21 ug/l	95
49) 1,2-Dichloroethane	6.629	62	342	N.D.	
50) Tert-Amyl-Methyl Ether...	6.825	73	133	N.D.	
51) Thiophene	6.885	84	46	N.D.	
52) 2,2,4-Trimethyl Pentane	6.765	57	375	N.D.	
53) Trichloroethene	7.451	95	50	N.D.	
54) 1,2-Dichloropropane	7.707	63	81	N.D.	
55) Dibromomethane	7.849	93	155	N.D.	
56) Methyl Methacrylate	7.925	69	711	3.48 ug/l #	55
57) 1,4-Dioxane	7.930	88	43	0.58 ug/l #	17
58) Bromodichloromethane	8.055	83	43	N.D.	
59) 2-Chloroethyl Vinyl Ether	7.707	63	81	N.D.	
60) c-1,3-Dichloropropene	8.627	75	35	N.D.	
62) Toluene	9.041	91	3076	0.13 ug/l	88
63) 4-Methyl-2-Pentanone	8.817	58	33	N.D.	
65) t-1,3-Dichloropropene	9.204	75	82	N.D.	
66) Ethyl Methacrylate	9.454	69	54	4.60 ug/l	60
67) 1,1,2-Trichloroethane	9.498	83	43	N.D.	
68) Tetrachloroethene	9.710	166	142	N.D.	
69) 1,3-Dichloropropane	9.607	76	86	N.D.	
70) 2-Hexanone	9.841	58	33	N.D.	
71) Dibromochloromethane	9.999	129	35	N.D.	
72) 1,2-Dibromoethane	10.135	107	107	N.D.	
73) Chlorobenzene	10.815	112	69	N.D.	
74) 1,1,1,2-Tetrachloroethane	10.848	131	60	N.D.	
75) Ethylbenzene	10.897	91	1119	N.D.	
76) p/m-Xylene	11.044	91	1850	N.D.	
77) o-Xylene	11.528	91	400	N.D.	
78) Styrene	11.550	104	233	N.D.	
79) Isopropylbenzene	11.997	105	420	N.D.	
81) 1,2,3-Trichloropropane	12.367	110	39	N.D.	
82) Bromobenzene	12.350	156	148	N.D.	
83) n-Propylbenzene	12.503	91	881	N.D.	
84) t-1,4-Dichloro-2-Butene	12.405	53	79	N.D.	
85) 2-Chlorotoluene	12.601	91	424	N.D.	
86) 1,3,5-Trimethylbenzene	12.710	105	1338	N.D.	
88) Bromoform	11.806	173	34	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.334	83	97	N.D.	
90) 4-Chlorotoluene	12.721	91	448	N.D.	
91) 1,2,4-Trimethylbenzene	13.178	105	962	N.D.	
92) tert-Butylbenzene	13.118	134	53	N.D.	
93) p-Isopropyltoluene	13.689	119	41	N.D.	
94) sec-Butylbenzene	13.379	105	854	N.D.	
95) 1,3-Dichlorobenzene	13.494	146	229	N.D.	
96) 1,4-Dichlorobenzene	13.613	146	950	N.D.	
97) 1,2-Dichlorobenzene	14.065	146	224	N.D.	
98) n-Butylbenzene	14.081	91	865	N.D.	
99) 1,2-Dibromo-3-Chloropr...	15.012	75	52	N.D.	
100) 1,2,4-Trichlorobenzene	16.068	180	343	N.D.	
101) Hexachloro-1,3-Butadiene	16.319	225	226	N.D.	
102) Naphthalene	16.362	128	787	N.D.	
103) 1,2,3-Trichlorobenzene	16.662	180	339	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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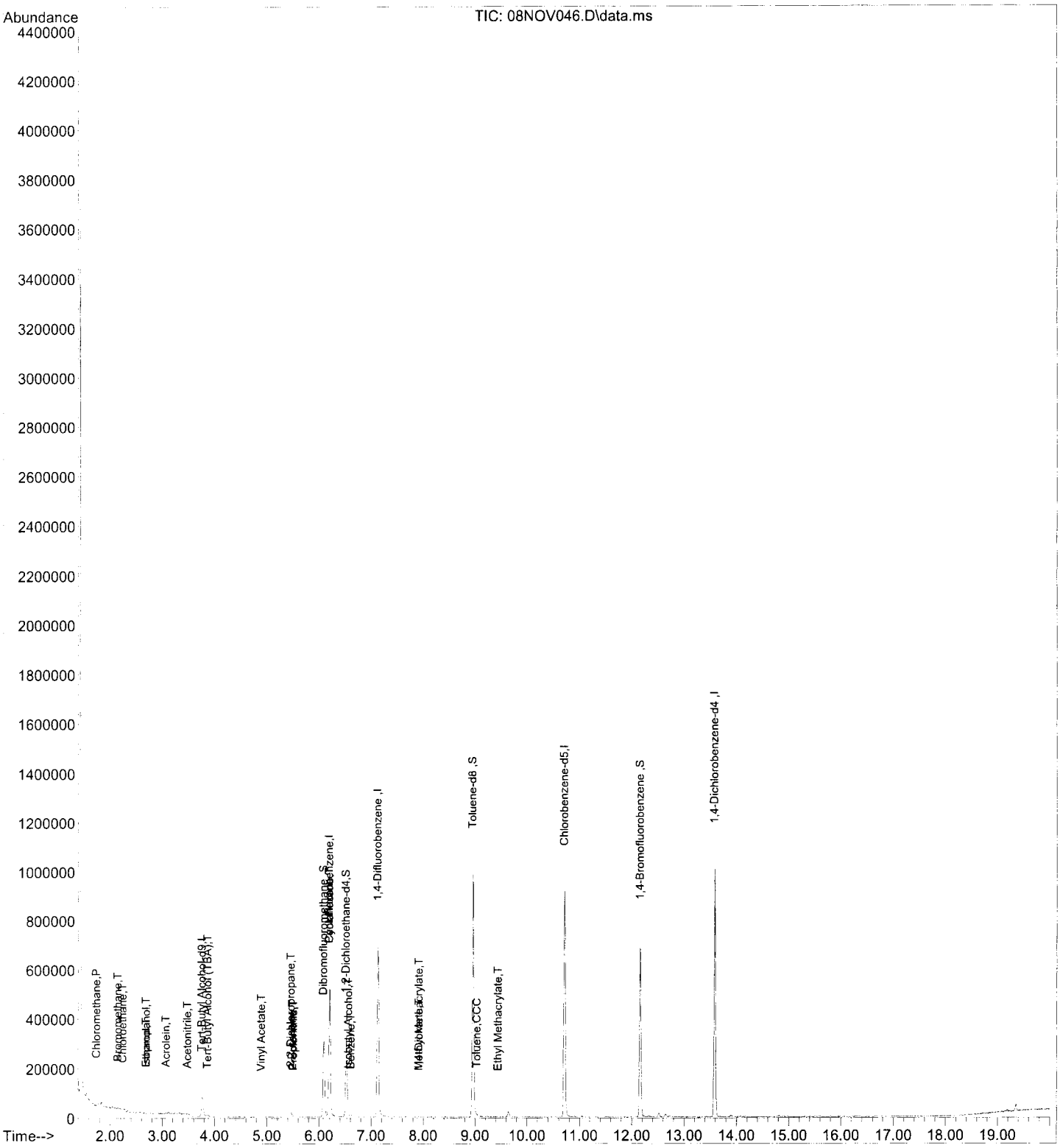
Quantitation Report (QT Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV046.D
Acq On : 9 Nov 2013 8:08 am
Sample : 13-11-0600-6A 5ML pH<2.
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:59:23 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 46
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



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EPA METHOD 8260B

Quality Control

Method Blank
LCS/LCSD
MS/MSD

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METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8260B

MB Sample ID: 099-14-001-12388
MB Batch ID: 131108L03
Instrument: GC/MS W
Matrix: Water
Analyst: 510
D/T Analyzed: 11/09/2013 00:10
Data File: W:\GCMS_W_DATA\2013\131108\08NOV030.D\08NOV030.rr

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 5030C
D/T Extracted: 11/08/2013 00:00

Work Order #: 13-11-0600

Sample#	Client Sample ID	D/T Analyzed	Data File
1	QCTB-11072013	11/09/2013 00:40	W:\GCMS_W_DATA\2013\131108\08NOV031.D\08NOV031.rr
2	13-GW-27-32	11/09/2013 06:38	W:\GCMS_W_DATA\2013\131108\08NOV043.D\08NOV043.rr
4	11-GW-31-36	11/09/2013 07:08	W:\GCMS_W_DATA\2013\131108\08NOV044.D\08NOV044.rr
5	110-GW-31-36	11/09/2013 07:38	W:\GCMS_W_DATA\2013\131108\08NOV045.D\08NOV045.rr
6	1-GW-19-24	11/09/2013 08:08	W:\GCMS_W_DATA\2013\131108\08NOV046.D\08NOV046.rr

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-001
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 00:10
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV030.D\08NOV030.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131108L03
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.00	1	ND	0.50	1	ug/L	
Bromobenzene	0.11	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	0.13	1	ND	10	1	ug/L	
2-Butanone	0.00	1	ND	10	1	ug/L	
n-Butylbenzene	0.10	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.11	1	ND	1.0	1	ug/L	
Chloroethane	0.83	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.62	1	ND	10	1	ug/L	
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.12	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.14	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.16	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.22	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.11	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	

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RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-001
INSTRUMENT NAME: GC/MS W
D/T ANALYZED: 11/09/2013 00:10
ANALYST: 510
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV030.D\08NOV030.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/08/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131108L03
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	
p-Isopropyltoluene	0.11	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.16	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.13	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.26	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.25	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.11	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.16	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

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LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

Work Order #: 13-11-0600
LCS/MB Batch ID: 131108L03
Instrument: GC/MS W
Analyst: 510
D/T Analyzed: 11/08/2013 22:41
Data File: W:\GCMS_W_DATA\2013\131108\08NOV027.D\08NOV027.rr

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 5030C
D/T Extracted: 11/08/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
Benzene	50.00	48.09	96	80-120	73-127	PASS	
Carbon Tetrachloride	50.00	52.44	105	66-138	54-150	PASS	
Chlorobenzene	50.00	49.17	98	80-120	73-127	PASS	
1,2-Dibromoethane	50.00	51.57	103	80-120	73-127	PASS	
1,2-Dichlorobenzene	50.00	51.60	103	80-120	73-127	PASS	
1,2-Dichloroethane	50.00	43.78	88	80-129	72-137	PASS	
1,1-Dichloroethene	50.00	43.13	86	71-131	61-141	PASS	
Ethylbenzene	50.00	48.81	98	80-123	73-130	PASS	
Toluene	50.00	46.67	93	79-121	72-128	PASS	
Trichloroethene	50.00	47.13	94	80-120	73-127	PASS	
Vinyl Chloride	50.00	46.60	93	70-136	59-147	PASS	
p/m-Xylene	100.0	93.52	94	75-125	67-133	PASS	
o-Xylene	50.00	49.53	99	75-125	67-133	PASS	
Methyl-t-Butyl Ether (MTBE)	50.00	42.53	85	72-126	63-135	PASS	
Tert-Butyl Alcohol (TBA)	250.0	249.6	100	71-125	62-134	PASS	
Diisopropyl Ether (DIPE)	50.00	40.72	81	69-129	59-139	PASS	
Ethyl-t-Butyl Ether (ETBE)	50.00	39.64	79	69-129	59-139	PASS	
Tert-Amyl-Methyl Ether (TAME)	50.00	41.95	84	67-133	56-144	PASS	
Ethanol	500.0	578.8	116	47-155	29-173	PASS	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

WORK ORDER:	**13-11-0600**	SAMPLE D/T EXTRACTED:	11/08/2013	EXTRACTION:	EPA 5030C
MS/MSD BATCH:	131108S03	MS D/T EXTRACTED:	11/08/2013	ANALYST:	510
SPIKED SAMPLE ID:	**13-11-0459-4**	MSD D/T EXTRACTED:	11/08/2013	SAMPLE INSTRUMENT NAME:	GC/MS W
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/09/2013 1:10	MS INSTRUMENT NAME:	GC/MS W
DATE REVIEWED:		MS D/T ANALYZED:	11/09/2013 1:40	MSD INSTRUMENT NAME:	GC/MS W
		MSD D/T ANALYZED:	11/09/2013 2:09		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Benzene	ND	50.00	50.00	46.58	93	46.42	93	78-120	0	0-20	PASS	
Carbon Tetrachloride	ND	50.00	50.00	50.51	101	50.42	101	67-139	0	0-20	PASS	
Chlorobenzene	ND	50.00	50.00	46.15	92	47.03	94	80-120	2	0-20	PASS	
1,2-Dibromoethane	ND	50.00	50.00	50.74	101	49.74	99	80-123	2	0-20	PASS	
1,2-Dichlorobenzene	ND	50.00	50.00	47.47	95	47.91	96	76-120	1	0-20	PASS	
1,2-Dichloroethane	ND	50.00	50.00	43.12	86	43.25	86	76-130	0	0-20	PASS	
1,1-Dichloroethene	**29.04**	**50.00**	**50.00**	**62.76**	**67**	**63.68**	**69**	**70-130**	**1**	**0-27**	**FAIL**	**3G**
Ethylbenzene	ND	50.00	50.00	48.04	96	49.36	99	73-127	3	0-20	PASS	
Toluene	ND	50.00	50.00	47.98	96	47.83	96	72-126	0	0-20	PASS	
Trichloroethene	19.06	50.00	50.00	62.74	87	62.52	87	74-122	0	0-20	PASS	
Vinyl Chloride	ND	50.00	50.00	46.89	94	49.34	99	65-131	5	0-24	PASS	
p/m-Xylene	ND	100.0	100.0	85.47	85	88.98	89	70-130	4	0-30	PASS	
o-Xylene	ND	50.00	50.00	44.02	88	46.04	92	70-130	4	0-30	PASS	
Methyl-t-Butyl Ether (MTBE)	1.078	50.00	50.00	42.61	83	44.52	87	69-123	4	0-20	PASS	
Tert-Butyl Alcohol (TBA)	ND	250.0	250.0	221.1	88	263.3	105	65-131	17	0-22	PASS	
Diisopropyl Ether (DIPE)	ND	50.00	50.00	41.37	83	43.21	86	68-128	4	0-22	PASS	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	50.00	40.00	80	40.06	80	69-123	0	0-21	PASS	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	50.00	43.00	86	42.12	84	70-124	2	0-20	PASS	
Ethanol	ND	500.0	500.0	519.1	104	608.4	122	41-155	16	0-35	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	08NOV033.rr	W:\GCMS_W_DATA\2013\131108\08NOV033.D\
MSD	08NOV034.rr	W:\GCMS_W_DATA\2013\131108\08NOV034.D\

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SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0600
BATCH ID:
LCS/MB: 131108L03
MS: 131108S03
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/13/2013 12:57

1 CLIENT SAMPLE NUMBER : QCTB-11072013

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV031.D\08NOV031.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 00:40

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	95	80-126	PASS	
1,2-Dichloroethane-d4	91	80-134	PASS	
Toluene-d8	95	80-120	PASS	
1,4-Bromofluorobenzene	85	80-120	PASS	

2 CLIENT SAMPLE NUMBER : 13-GW-27-32

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV043.D\08NOV043.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 06:38

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	106	80-126	PASS	
1,2-Dichloroethane-d4	100	80-134	PASS	
Toluene-d8	96	80-120	PASS	
1,4-Bromofluorobenzene	83	80-120	PASS	

4 CLIENT SAMPLE NUMBER : 11-GW-31-36

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV044.D\08NOV044.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 07:08

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	106	80-126	PASS	
1,2-Dichloroethane-d4	100	80-134	PASS	
Toluene-d8	96	80-120	PASS	
1,4-Bromofluorobenzene	81	80-120	PASS	

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SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0600
BATCH ID:
LCS/MB: 131108L03
MS: 131108S03
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/13/2013 12:57

5 CLIENT SAMPLE NUMBER : 110-GW-31-36

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV045.D\08NOV045.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 07:38

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	108	80-126	PASS	
1,2-Dichloroethane-d4	100	80-134	PASS	
Toluene-d8	95	80-120	PASS	
1,4-Bromofluorobenzene	82	80-120	PASS	

6 CLIENT SAMPLE NUMBER : 1-GW-19-24

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV046.D\08NOV046.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 08:08

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	106	80-126	PASS	
1,2-Dichloroethane-d4	100	80-134	PASS	
Toluene-d8	96	80-120	PASS	
1,4-Bromofluorobenzene	83	80-120	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV033.D\08NOV033.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 01:40

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	90	80-126	PASS	
1,2-Dichloroethane-d4	83	80-134	PASS	
Toluene-d8	98	80-120	PASS	
1,4-Bromofluorobenzene	93	80-120	PASS	

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SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0600
BATCH ID:
LCS/MB:
MS: 131108S03
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/12/2013 10:41

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV034.D\08NOV034.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 02:09

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	89	80-126	PASS	
1,2-Dichloroethane-d4	80	80-134	PASS	
Toluene-d8	97	80-120	PASS	
1,4-Bromofluorobenzene	94	80-120	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV030.D\08NOV030.rr

ANALYZED BY: 510
D/T ANALYZED 11/09/2013 00:10

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	100	80-126	PASS	
1,2-Dichloroethane-d4	94	80-134	PASS	
Toluene-d8	94	80-120	PASS	
1,4-Bromofluorobenzene	84	80-120	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC/MS W
D/T EXTRACTED: 11/08/2013 00:00
DATA FILE: W:\GCMS_W_DATA\2013\131108\08NOV027.D\08NOV027.rr

ANALYZED BY: 510
D/T ANALYZED 11/08/2013 22:41

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	89	80-126	PASS	
1,2-Dichloroethane-d4	81	80-134	PASS	
Toluene-d8	94	80-120	PASS	
1,4-Bromofluorobenzene	98	80-120	PASS	

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ICAL Midpoint Internal Standard Compounds Area Report
EPA 8260B

ICAL
Sample ID: 099-15-001-11061 **D/T Analyzed:** 10/22/2013 14:35
ICAL Batch ID: 131022IC
Data File: W:\GCMS_W_DATA\2013\131022\22OCT009.D\22OCT009.rr

IS Compound	Area	Retention Time
1,4-Dichlorobenzene-d4	439420	13.59
1,4-Difluorobenzene	773704	7.13
Pentafluorobenzene	517513	6.20
Chlorobenzene-d5	699167	10.71
Tert-Butyl Alcohol-d9	129166	3.77

Daily CCV And Samples Internal Standard Compounds Area Report
EPA 8260B

ICV
Sample ID: 099-15-001-11061 **Run #:** 10
CCV Batch ID: 131108B **D/T Analyzed:** 10/22/2013 16:11
Data File: W:\GCMS_W_DATA\2013\131022\22OCT012.D\22OCT012.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	437267	219710	878840	13.59	PASS	
1,4-Difluorobenzene	796217	386852	1547408	7.13	PASS	
Pentafluorobenzene	536492	258756	1035026	6.20	PASS	
Chlorobenzene-d5	719187	349584	1398334	10.72	PASS	
Tert-Butyl Alcohol-d9	163457	64583	258332	3.78	PASS	

CCV
Sample ID: 099-15-001-11401 **Run #:** 0
CCV Batch ID: 131108B **D/T Analyzed:** 11/08/2013 22:11
Data File: W:\GCMS_W_DATA\2013\131108\08NOV026.D\08NOV026.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	412940	219710	878840	13.59	PASS	
1,4-Difluorobenzene	721764	386852	1547408	7.13	PASS	
Pentafluorobenzene	525642	258756	1035026	6.20	PASS	
Chlorobenzene-d5	660036	349584	1398334	10.71	PASS	
Tert-Butyl Alcohol-d9	125319	64583	258332	3.77	PASS	

LCS
Sample ID: 099-14-001-12388 **Run #:** 1
CCV Batch ID: 131108B **D/T Analyzed:** 11/08/2013 22:41
Data File: W:\GCMS_W_DATA\2013\131108\08NOV027.D\08NOV027.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	420131	206470	825880	13.59	PASS	
1,4-Difluorobenzene	774680	360882	1443528	7.12	PASS	
Pentafluorobenzene	548509	262821	1051284	6.20	PASS	
Chlorobenzene-d5	688688	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	141619	62660	250638	3.77	PASS	

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MB

Sample ID: 099-14-001-12388 **Run #:** 0

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 00:10

Data File: W:\GCMS_W_DATA\2013\131108\08NOV030.D\08NOV030.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	303585	206470	825880	13.59	PASS	
1,4-Difluorobenzene	639361	360882	1443528	7.13	PASS	
Pentafluorobenzene	430122	262821	1051284	6.20	PASS	
Chlorobenzene-d5	594476	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	117409	62660	250638	3.77	PASS	

CS

Sample ID: 13-11-0600-1 **Run #:** 0

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 00:40

Data File: W:\GCMS_W_DATA\2013\131108\08NOV031.D\08NOV031.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	293592	206470	825880	13.59	PASS	
1,4-Difluorobenzene	632132	360882	1443528	7.13	PASS	
Pentafluorobenzene	415210	262821	1051284	6.20	PASS	
Chlorobenzene-d5	591031	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	78593	62660	250638	3.72	PASS	

MS

Sample ID: 13-11-0459-4 **Run #:** 4

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 01:40

Data File: W:\GCMS_W_DATA\2013\131108\08NOV033.D\08NOV033.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	419225	206470	825880	13.58	PASS	
1,4-Difluorobenzene	749858	360882	1443528	7.13	PASS	
Pentafluorobenzene	528397	262821	1051284	6.20	PASS	
Chlorobenzene-d5	692789	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	152231	62660	250638	3.77	PASS	

MSD

Sample ID: 13-11-0459-4 **Run #:** 5

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 02:09

Data File: W:\GCMS_W_DATA\2013\131108\08NOV034.D\08NOV034.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	416623	206470	825880	13.59	PASS	
1,4-Difluorobenzene	755300	360882	1443528	7.12	PASS	
Pentafluorobenzene	529657	262821	1051284	6.20	PASS	
Chlorobenzene-d5	688688	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	125313	62660	250638	3.77	PASS	

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CS

Sample ID: 13-11-0600-2 **Run #:** 0

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 06:38

Data File: W:\GCMS_W_DATA\2013\131108\08NOV043.D\08NOV043.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	327024	206470	825880	13.59	PASS	
1,4-Difluorobenzene	660049	360882	1443528	7.13	PASS	
Pentafluorobenzene	428163	262821	1051284	6.20	PASS	
Chlorobenzene-d5	628175	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	114414	62660	250638	3.77	PASS	

CS

Sample ID: 13-11-0600-4 **Run #:** 0

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 07:08

Data File: W:\GCMS_W_DATA\2013\131108\08NOV044.D\08NOV044.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	320267	206470	825880	13.59	PASS	
1,4-Difluorobenzene	647569	360882	1443528	7.13	PASS	
Pentafluorobenzene	423849	262821	1051284	6.20	PASS	
Chlorobenzene-d5	629417	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	109708	62660	250638	3.77	PASS	

CS

Sample ID: 13-11-0600-5 **Run #:** 0

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 07:38

Data File: W:\GCMS_W_DATA\2013\131108\08NOV045.D\08NOV045.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	312073	206470	825880	13.59	PASS	
1,4-Difluorobenzene	631260	360882	1443528	7.13	PASS	
Pentafluorobenzene	409214	262821	1051284	6.20	PASS	
Chlorobenzene-d5	600049	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	104339	62660	250638	3.76	PASS	

CS

Sample ID: 13-11-0600-6 **Run #:** 0

CCV Batch ID: 131108B **D/T Analyzed:** 11/09/2013 08:08

Data File: W:\GCMS_W_DATA\2013\131108\08NOV046.D\08NOV046.rr

IS Compound	Area	Lower Area Limit	Upper Area Limit	Retention Time	Status	Remark
1,4-Dichlorobenzene-d4	312732	206470	825880	13.59	PASS	
1,4-Difluorobenzene	634398	360882	1443528	7.13	PASS	
Pentafluorobenzene	413946	262821	1051284	6.20	PASS	
Chlorobenzene-d5	610661	330018	1320072	10.71	PASS	
Tert-Butyl Alcohol-d9	106849	62660	250638	3.77	PASS	

Notes:

1) For CCV, all IS areas must be within 50% to 200% of the mid-point of the initial calibration IS area to be considered PASS.

2) For all samples including QC, all IS areas must be within 50% to 200% of the CCV IS area to be considered PASS.

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV030.D Vial: 30
Acq On : 9 Nov 2013 12:10 am Operator: 510
Sample : MB Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	117409	250.00 ug/l	0.00
4) Pentafluorobenzene	6.205	168	430122	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	639361	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	594476	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	303585	50.00 ug/l	0.00

System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	203018	50.09 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 100.18%		
46) 1,2-Dichloroethane-d4	6.520	65	245283	47.01 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 94.02%		
61) Toluene-d8	8.959	98	746327	47.25 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.50%		
80) 1,4-Bromofluorobenzene	12.160	95	248841	42.03 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 84.06%		

Target Compounds					Qvalue
2) Ethanol	2.721	45	536	5.97 ug/l #	67
3) Tert-Butyl Alcohol (TBA)	3.886	59	431	0.68 ug/l	85
5) Dichlorodifluoromethane	1.583	85	537	N.D.	
6) Chloromethane	1.741	50	3191	0.62 ug/l	88
7) Vinyl Chloride	1.839	62	351	N.D.	
8) Bromomethane	2.198	94	340	0.13 ug/l	77
9) Chloroethane	2.242	64	3588	0.83 ug/l	52
10) 1,3-Butadiene	1.877	54	437	0.10 ug/l #	25
11) Trichlorofluoromethane	2.514	101	735	N.D.	
12) Diethyl Ether	2.824	45	269	Below Cal #	44
13) Acetone	3.129	58	1972	Below Cal #	2
14) Iodomethane	3.227	142	1510	0.38 ug/l	82
15) 1,1-Dichloroethene	3.058	61	370	N.D.	
16) 1,1,2-Trichloro-1,2,2-...	3.064	101	115	N.D.	
17) Isopropanol	2.661	45	169	0.96 ug/l	99
18) Carbon Disulfide	3.314	76	3365	Below Cal	64
19) Acetonitrile	3.483	41	1215	0.36 ug/l	78
20) Acrylonitrile	3.989	53	154	N.D.	
21) Allyl Chloride	3.494	76	418	Below Cal #	4
22) Acrolein	2.835	56	156	0.21 ug/l	83
23) Methylene Chloride	3.662	84	184	N.D.	
24) t-1,2-Dichloroethene	4.043	96	227	N.D.	
25) Isobutyl Alcohol	6.575	43	380	1.68 ug/l	85
26) Methyl-t-Butyl Ether (...	4.092	73	346	N.D.	
27) Hexane	4.495	57	79	N.D.	
28) 1,1-Dichloroethane	4.642	63	346	N.D.	
29) Vinyl Acetate	4.724	86	33	N.D.	
30) Diisopropyl Ether (DIPE)	4.800	45	184	N.D.	
31) Chloroprene	4.778	53	101	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.328	59	160	N.D.	
33) c-1,2-Dichloroethene	5.442	96	223	N.D.	
34) 2,2-Dichloropropane	5.459	77	219	N.D.	
35) 2-Butanone	5.491	43	163	N.D.	
36) Propionitrile	5.633	54	33	N.D.	
37) Methacrylonitrile	5.731	41	82	N.D.	
38) Bromochloromethane	5.758	130	70	N.D.	
39) Tetrahydrofuran	5.878	42	339	0.21 ug/l #	46
40) Chloroform	5.900	83	196	N.D.	
42) 1,1,1-Trichloroethane	6.139	97	77	N.D.	
43) Cyclohexane	6.199	84	10902	1.28 ug/l #	43
44) 1,1-Dichloropropene	6.346	75	253	N.D.	

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV030.D Vial: 30
Acq On : 9 Nov 2013 12:10 am Operator: 510
Sample : MB Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.352	117	241	N.D.	
48) Benzene	6.607	78	1719	N.D.	
49) 1,2-Dichloroethane	6.618	62	234	N.D.	
50) Tert-Amyl-Methyl Ether...	6.809	73	40	N.D.	
51) Thiophene	6.874	84	163	N.D.	
52) 2,2,4-Trimethyl Pentane	6.771	57	542	N.D.	
53) Trichloroethene	7.413	95	87	N.D.	
54) 1,2-Dichloropropane	7.707	63	153	N.D.	
55) Dibromomethane	7.881	93	110	N.D.	
56) Methyl Methacrylate	7.925	69	691	3.47 ug/l #	78
57) 1,4-Dioxane	7.859	88	37	0.50 ug/l #	17
58) Bromodichloromethane	8.044	83	192	N.D.	
59) 2-Chloroethyl Vinyl Ether	7.707	63	153	N.D.	
60) c-1,3-Dichloropropene	8.643	75	47	N.D.	
62) Toluene	9.046	91	3175	0.13 ug/l	92
63) 4-Methyl-2-Pentanone	8.823	58	72	N.D.	
65) t-1,3-Dichloropropene	9.324	75	97	N.D.	
66) Ethyl Methacrylate	9.444	69	158	4.62 ug/l	60
67) 1,1,2-Trichloroethane	9.509	83	134	N.D.	
68) Tetrachloroethene	9.721	166	276	N.D.	
69) 1,3-Dichloropropane	9.699	76	392	N.D.	
70) 2-Hexanone	9.884	58	53	N.D.	
71) Dibromochloromethane	9.982	129	54	N.D.	
72) 1,2-Dibromoethane	10.102	107	33	N.D.	
73) Chlorobenzene	10.745	112	1629	0.11 ug/l	78
74) 1,1,1,2-Tetrachloroethane	10.859	131	238	N.D.	
75) Ethylbenzene	10.891	91	2863	0.11 ug/l	91
76) p/m-Xylene	11.038	91	3612	0.16 ug/l	85
77) o-Xylene	11.534	91	1472	N.D.	
78) Styrene	11.534	104	1039	N.D.	
79) Isopropylbenzene	11.997	105	1041	N.D.	
81) 1,2,3-Trichloropropane	12.388	110	58	N.D.	
82) Bromobenzene	12.323	156	680	0.11 ug/l #	48
83) n-Propylbenzene	12.497	91	2184	N.D.	
84) t-1,4-Dichloro-2-Butene	12.388	53	40	N.D.	
85) 2-Chlorotoluene	12.595	91	1673	N.D.	
86) 1,3,5-Trimethylbenzene	12.715	105	1955	N.D.	
88) Bromoform	11.730	173	97	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.318	83	252	N.D.	
90) 4-Chlorotoluene	12.715	91	2135	0.12 ug/l	90
91) 1,2,4-Trimethylbenzene	13.172	105	1898	0.11 ug/l	95
92) tert-Butylbenzene	13.123	134	375	N.D.	
93) p-Isopropyltoluene	13.586	119	2243	0.11 ug/l #	61
94) sec-Butylbenzene	13.385	105	2246	N.D.	
95) 1,3-Dichlorobenzene	13.504	146	1758	0.17 ug/l	73
96) 1,4-Dichlorobenzene	13.613	146	2448	0.22 ug/l #	37
97) 1,2-Dichlorobenzene	14.071	146	1444	0.14 ug/l #	66
98) n-Butylbenzene	14.076	91	1983	0.10 ug/l	93
99) 1,2-Dibromo-3-Chloropr...	15.001	75	48	N.D.	
100) 1,2,4-Trichlorobenzene	16.063	180	1635	0.25 ug/l	95
101) Hexachloro-1,3-Butadiene	16.308	225	1357	0.27 ug/l	96
102) Naphthalene	16.357	128	2290	0.16 ug/l	69
103) 1,2,3-Trichlorobenzene	16.656	180	1698	0.26 ug/l	74

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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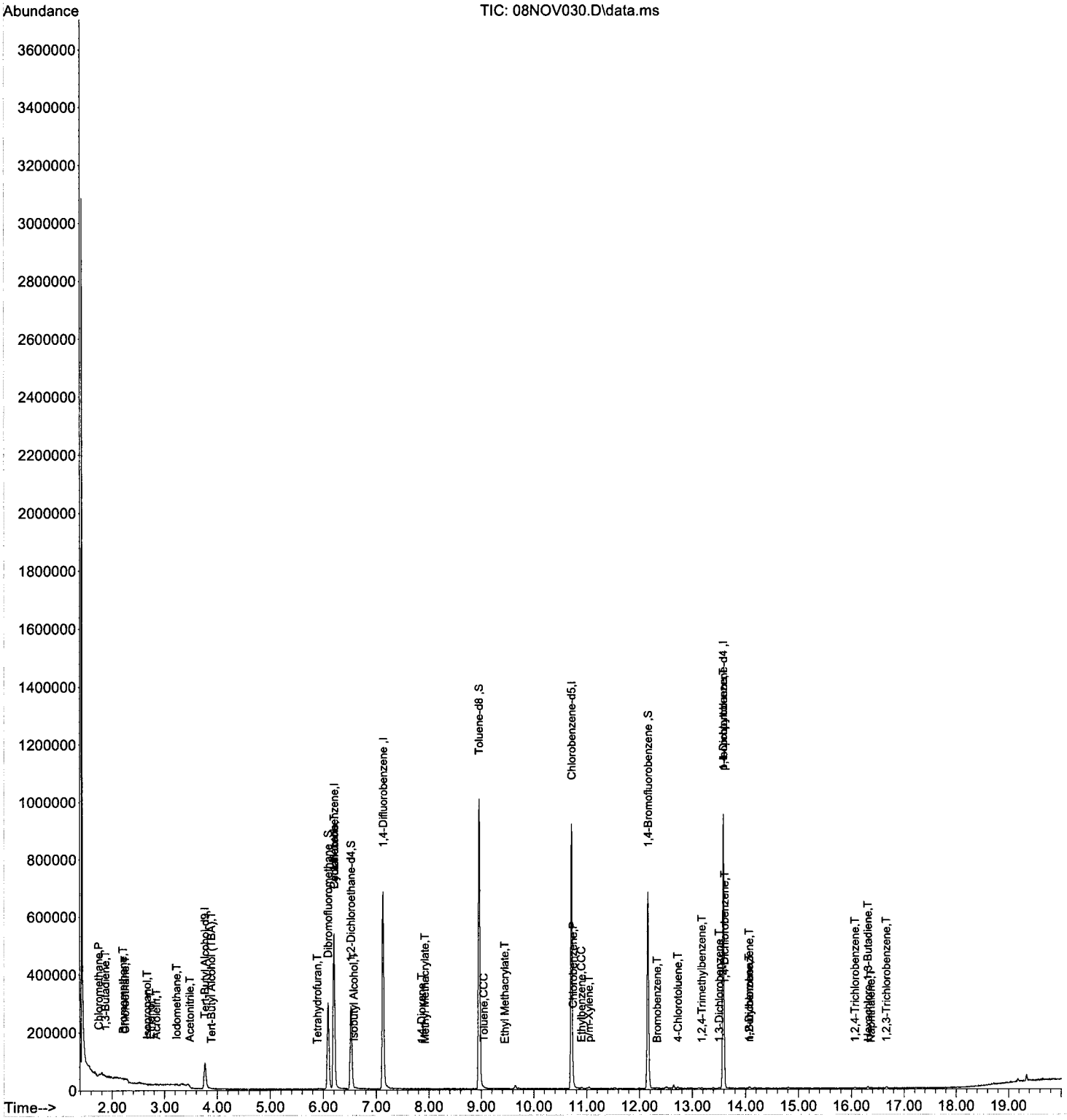
Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV030.D
Acq On : 9 Nov 2013 12:10 am
Sample : MB
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:56:59 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 30
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV027.D Vial: 27
Acq On : 8 Nov 2013 10:41 pm Operator: 510
Sample : LCS V101713B/V110113B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:33 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.771	65	141619	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	548509	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.125	114	774680	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	688688	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	420131	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	230929	44.68 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 89.36%		
46) 1,2-Dichloroethane-d4	6.520	65	270680	40.68 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 81.36%		
61) Toluene-d8	8.959	98	902187	47.14 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.28%		
80) 1,4-Bromofluorobenzene	12.160	95	337673	49.23 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.46%		

Target Compounds					Qvalue
2) Ethanol	2.715	45	62701	578.78 ug/l	95
3) Tert-Butyl Alcohol (TBA)	3.886	59	191276	249.61 ug/l	94
5) Dichlorodifluoromethane	1.583	85	449331	43.27 ug/l	97
6) Chloromethane	1.741	50	291862	44.75 ug/l	95
7) Vinyl Chloride	1.839	62	370937	46.60 ug/l	99
8) Bromomethane	2.133	94	222691	64.63 ug/l	95
9) Chloroethane	2.242	64	246235	44.87 ug/l	96
10) 1,3-Butadiene	1.877	54	251231	45.10 ug/l	90
11) Trichlorofluoromethane	2.508	101	573976	47.62 ug/l	100
12) Diethyl Ether	2.824	45	169472	48.16 ug/l	86
13) Acetone	3.129	58	35898	43.39 ug/l #	78
14) Iodomethane	3.227	142	221947	43.96 ug/l	97
15) 1,1-Dichloroethene	3.064	61	460025	43.13 ug/l	94
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	338186	45.76 ug/l	89
17) Isopropanol	2.715	45	62701	280.69 ug/l	100
18) Carbon Disulfide	3.309	76	1023613	46.90 ug/l	100
19) Acetonitrile	3.494	41	351258	81.46 ug/l	94
20) Acrylonitrile	3.978	53	99115	42.98 ug/l	91
21) Allyl Chloride	3.494	76	136778	46.84 ug/l	88
22) Acrolein	2.938	56	92597	98.11 ug/l #	38
23) Methylene Chloride	3.646	84	314962	45.67 ug/l	99
24) t-1,2-Dichloroethene	4.049	96	304285	44.20 ug/l	97
25) Isobutyl Alcohol	6.580	43	24133	83.73 ug/l #	84
26) Methyl-t-Butyl Ether (...	4.093	73	724079	42.53 ug/l	95
27) Hexane	4.484	57	455049	42.80 ug/l	95
28) 1,1-Dichloroethane	4.637	63	534486	40.89 ug/l	98
29) Vinyl Acetate	4.757	86	41965	51.73 ug/l	94
30) Diisopropyl Ether (DIPE)	4.822	45	884587	40.72 ug/l	91
31) Chloroprene	4.784	53	467396	41.48 ug/l	90
32) Ethyl-t-Butyl Ether (E...	5.328	59	690419	39.64 ug/l	96
33) c-1,2-Dichloroethene	5.448	96	330671	45.52 ug/l	94
34) 2,2-Dichloropropane	5.448	77	366625	44.43 ug/l	98
35) 2-Butanone	5.497	43	131649	39.76 ug/l	99
36) Propionitrile	5.541	54	44064	42.53 ug/l	90
37) Methacrylonitrile	5.747	41	159146	41.51 ug/l	94
38) Bromochloromethane	5.758	130	159080	45.73 ug/l	98
39) Tetrahydrofuran	5.873	42	89083	43.50 ug/l	95
40) Chloroform	5.883	83	553067	43.35 ug/l	99
42) 1,1,1-Trichloroethane	6.134	97	503604	47.15 ug/l	94
43) Cyclohexane	6.216	84	491599	45.19 ug/l	95
44) 1,1-Dichloropropene	6.352	75	419636	43.30 ug/l	97

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV027.D Vial: 27
Acq On : 8 Nov 2013 10:41 pm Operator: 510
Sample : LCS V101713B/V110113B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:33 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	422796	52.44 ug/l	99
48) Benzene	6.613	78	1312374	48.09 ug/l	94
49) 1,2-Dichloroethane	6.618	62	415851	43.78 ug/l	98
50) Tert-Amyl-Methyl Ether...	6.814	73	614136	41.95 ug/l	99
51) Thiophene	6.874	84	623772	48.95 ug/l	94
52) 2,2,4-Trimethyl Pentane	6.765	57	1327240	47.57 ug/l	97
53) Trichloroethene	7.451	95	325851	47.13 ug/l	94
54) 1,2-Dichloropropane	7.702	63	287132	46.31 ug/l	98
55) Dibromomethane	7.843	93	171963	50.11 ug/l	94
56) Methyl Methacrylate	7.914	69	186148	47.76 ug/l	87
57) 1,4-Dioxane	7.919	88	44501	491.71 ug/l	87
58) Bromodichloromethane	8.055	83	402976	50.42 ug/l	100
59) 2-Chloroethyl Vinyl Ether	7.702	63	286806	47.15 ug/l	97
60) c-1,3-Dichloropropene	8.622	75	407956	50.85 ug/l	97
62) Toluene	9.041	91	1346878	46.67 ug/l	98
63) 4-Methyl-2-Pentanone	8.828	58	100026	47.54 ug/l	88
65) t-1,3-Dichloropropene	9.297	75	366922	51.75 ug/l	99
66) Ethyl Methacrylate	9.460	69	316104	47.77 ug/l	95
67) 1,1,2-Trichloroethane	9.514	83	210519	47.51 ug/l	96
68) Tetrachloroethene	9.721	166	400612	44.95 ug/l	96
69) 1,3-Dichloropropane	9.716	76	449234	48.94 ug/l	98
70) 2-Hexanone	9.852	58	98076	48.84 ug/l #	76
71) Dibromochloromethane	9.988	129	272290	59.71 ug/l	94
72) 1,2-Dibromoethane	10.119	107	239180	51.57 ug/l	92
73) Chlorobenzene	10.745	112	851178	49.17 ug/l	97
74) 1,1,1,2-Tetrachloroethane	10.848	131	293955	58.44 ug/l	96
75) Ethylbenzene	10.897	91	1494861	48.81 ug/l	99
76) p/m-Xylene	11.044	91	2422202	93.52 ug/l	99
77) o-Xylene	11.523	91	1186067	49.53 ug/l	98
78) Styrene	11.539	104	939664	52.61 ug/l	94
79) Isopropylbenzene	11.986	105	1512399	51.31 ug/l	100
81) 1,2,3-Trichloropropane	12.367	110	114999	50.50 ug/l	92
82) Bromobenzene	12.334	156	381984	52.25 ug/l	91
83) n-Propylbenzene	12.492	91	1872981	48.39 ug/l	98
84) t-1,4-Dichloro-2-Butene	12.394	53	83457	43.22 ug/l	81
85) 2-Chlorotoluene	12.585	91	1039110	47.80 ug/l	100
86) 1,3,5-Trimethylbenzene	12.721	105	1316689	52.47 ug/l	100
88) Bromoform	11.730	173	167862	65.54 ug/l	95
89) 1,1,2,2-Tetrachloroethane	12.323	83	358223	49.81 ug/l	100
90) 4-Chlorotoluene	12.715	91	1241200	49.07 ug/l	97
91) 1,2,4-Trimethylbenzene	13.178	105	1326979	53.57 ug/l	99
92) tert-Butylbenzene	13.118	134	330019	53.85 ug/l	95
93) p-Isopropyltoluene	13.575	119	1498103	53.03 ug/l	98
94) sec-Butylbenzene	13.390	105	1755805	51.99 ug/l	98
95) 1,3-Dichlorobenzene	13.504	146	746418	50.64 ug/l	96
96) 1,4-Dichlorobenzene	13.613	146	767331	49.48 ug/l	98
97) 1,2-Dichlorobenzene	14.065	146	713798	51.60 ug/l	98
98) n-Butylbenzene	14.081	91	1377831	52.23 ug/l	98
99) 1,2-Dibromo-3-Chloropr...	15.007	75	66461	50.04 ug/l	91
100) 1,2,4-Trichlorobenzene	16.068	180	484485	54.48 ug/l	99
101) Hexachloro-1,3-Butadiene	16.313	225	348828	50.80 ug/l	96
102) Naphthalene	16.362	128	1103306	54.81 ug/l	98
103) 1,2,3-Trichlorobenzene	16.667	180	510242	56.67 ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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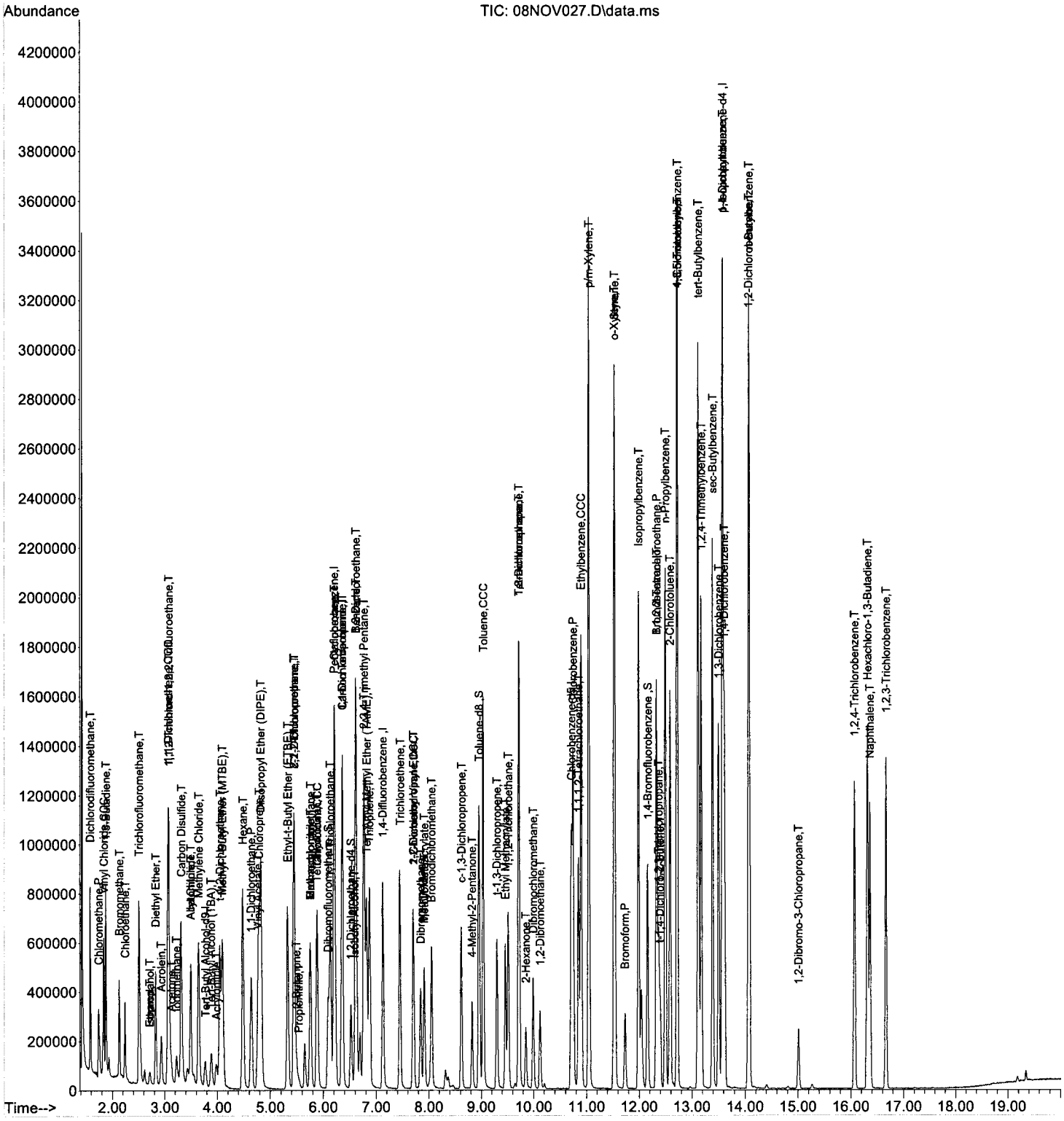
Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV027.D
Acq On : 8 Nov 2013 10:41 pm
Sample : LCS V101713B/V110113B
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:56:33 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 27
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV033.D Vial: 33
Acq On : 9 Nov 2013 1:40 am Operator: 510
Sample : MS 0459-4A V101713B/V110113B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:57:26 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.771	65	152231	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	528397	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	749858	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	692789	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.581	152	419225	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	225091	45.21 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 90.42%		
46) 1,2-Dichloroethane-d4	6.520	65	264703	41.30 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 82.60%		
61) Toluene-d8	8.959	98	911634	49.21 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.42%		
80) 1,4-Bromofluorobenzene	12.160	95	320596	46.46 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.92%		

Target Compounds					Qvalue
2) Ethanol	2.710	45	60446	519.07 ug/l	94
3) Tert-Butyl Alcohol (TBA)	3.886	59	182135	221.11 ug/l	95
5) Dichlorodifluoromethane	1.577	85	456312	45.62 ug/l	100
6) Chloromethane	1.741	50	273772	43.58 ug/l	97
7) Vinyl Chloride	1.839	62	359594	46.89 ug/l	100
8) Bromomethane	2.133	94	213852	64.43 ug/l	98
9) Chloroethane	2.242	64	236270	44.69 ug/l	97
10) 1,3-Butadiene	1.877	54	139474	25.99 ug/l #	87
11) Trichlorofluoromethane	2.508	101	561261	48.34 ug/l	99
12) Diethyl Ether	2.824	45	147548	43.30 ug/l	88
13) Acetone	3.118	58	37416	47.76 ug/l #	66
14) Iodomethane	3.227	142	130188	26.77 ug/l	98
15) 1,1-Dichloroethene	3.058	61	644767	62.76 ug/l	92
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	299257	42.04 ug/l	88
17) Isopropanol	2.710	45	61313	284.92 ug/l	100
18) Carbon Disulfide	3.309	76	809285	37.90 ug/l	100
19) Acetonitrile	3.494	41	307176	73.95 ug/l	96
20) Acrylonitrile	3.978	53	90644	40.80 ug/l	96
21) Allyl Chloride	3.494	76	117706	41.48 ug/l	98
22) Acrolein	2.938	56	85877	94.45 ug/l #	23
23) Methylene Chloride	3.646	84	296519	44.63 ug/l	95
24) t-1,2-Dichloroethene	4.043	96	274430	41.38 ug/l	92
25) Isobutyl Alcohol	6.580	43	24138	86.93 ug/l #	85
26) Methyl-t-Butyl Ether (...	4.092	73	698960	42.61 ug/l	96
27) Hexane	4.479	57	392677	38.34 ug/l	93
28) 1,1-Dichloroethane	4.637	63	499333	39.65 ug/l	97
29) Vinyl Acetate	4.762	86	31915	40.84 ug/l #	84
30) Diisopropyl Ether (DIPE)	4.822	45	865704	41.37 ug/l	93
31) Chloroprene	4.784	53	438398	40.39 ug/l	93
32) Ethyl-t-Butyl Ether (E...	5.328	59	671220	40.00 ug/l	97
33) c-1,2-Dichloroethene	5.453	96	334582	47.81 ug/l	100
34) 2,2-Dichloropropane	5.448	77	320138	40.27 ug/l	94
35) 2-Butanone	5.491	43	134558	42.18 ug/l	95
36) Propionitrile	5.540	54	41970	42.05 ug/l	96
37) Methacrylonitrile	5.747	41	154825	41.92 ug/l	98
38) Bromochloromethane	5.764	130	158313	47.25 ug/l	97
39) Tetrahydrofuran	5.872	42	79665	40.38 ug/l	91
40) Chloroform	5.883	83	545977	44.42 ug/l	98
42) 1,1,1-Trichloroethane	6.128	97	467010	45.39 ug/l	95
43) Cyclohexane	6.215	84	460031	43.90 ug/l	95
44) 1,1-Dichloropropene	6.357	75	400130	42.85 ug/l	94

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV033.D Vial: 33
Acq On : 9 Nov 2013 1:40 am Operator: 510
Sample : MS 0459-4A V101713B/V110113B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:57:26 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.357	117	392317	50.51 ug/l	99
48) Benzene	6.607	78	1230338	46.58 ug/l	93
49) 1,2-Dichloroethane	6.618	62	396434	43.12 ug/l	98
50) Tert-Amyl-Methyl Ether...	6.814	73	609299	43.00 ug/l	99
51) Thiophene	6.869	84	601417	48.76 ug/l	97
52) 2,2,4-Trimethyl Pentane	6.765	57	1249884	46.28 ug/l	96
53) Trichloroethene	7.446	95	419855	62.74 ug/l	97
54) 1,2-Dichloropropane	7.702	63	276210	46.03 ug/l	97
55) Dibromomethane	7.843	93	160358	48.27 ug/l	92
56) Methyl Methacrylate	7.908	69	188849	49.89 ug/l	83
57) 1,4-Dioxane	7.914	88	44905	512.60 ug/l	92
58) Bromodichloromethane	8.050	83	377400	48.78 ug/l	96
59) 2-Chloroethyl Vinyl Ether	7.702	63	276210	46.91 ug/l	99
60) c-1,3-Dichloropropene	8.621	75	380481	48.99 ug/l	99
62) Toluene	9.041	91	1340339	47.98 ug/l	98
63) 4-Methyl-2-Pentanone	8.828	58	99942	49.07 ug/l	92
65) t-1,3-Dichloropropene	9.302	75	323170	45.31 ug/l	98
66) Ethyl Methacrylate	9.460	69	268380	41.03 ug/l	96
67) 1,1,2-Trichloroethane	9.514	83	217105	48.70 ug/l	97
68) Tetrachloroethene	9.721	166	379863	42.37 ug/l	98
69) 1,3-Dichloropropane	9.716	76	435830	47.20 ug/l	98
70) 2-Hexanone	9.846	58	98864	48.94 ug/l	87
71) Dibromochloromethane	9.988	129	265111	57.79 ug/l	99
72) 1,2-Dibromoethane	10.118	107	236719	50.74 ug/l	98
73) Chlorobenzene	10.744	112	803716	46.15 ug/l	97
74) 1,1,1,2-Tetrachloroethane	10.848	131	291105	57.53 ug/l	97
75) Ethylbenzene	10.897	91	1480253	48.04 ug/l	98
76) p/m-Xylene	11.044	91	2226864	85.47 ug/l	96
77) o-Xylene	11.523	91	1060299	44.02 ug/l	95
78) Styrene	11.539	104	789131	43.92 ug/l	92
79) Isopropylbenzene	11.986	105	1306894	44.07 ug/l	99
81) 1,2,3-Trichloropropane	12.367	110	111020	48.46 ug/l	92
82) Bromobenzene	12.334	156	359298	48.85 ug/l	90
83) n-Propylbenzene	12.492	91	1592434	40.90 ug/l	97
84) t-1,4-Dichloro-2-Butene	12.399	53	51882	26.71 ug/l	85
85) 2-Chlorotoluene	12.584	91	933100	42.67 ug/l	97
86) 1,3,5-Trimethylbenzene	12.720	105	1272793	50.42 ug/l	96
88) Bromoform	11.735	173	164548	64.39 ug/l	94
89) 1,1,2,2-Tetrachloroethane	12.323	83	356283	49.65 ug/l	98
90) 4-Chlorotoluene	12.715	91	1098005	43.51 ug/l	97
91) 1,2,4-Trimethylbenzene	13.178	105	1232274	49.86 ug/l	100
92) tert-Butylbenzene	13.118	134	302731	49.51 ug/l	92
93) p-Isopropyltoluene	13.575	119	1310840	46.50 ug/l	98
94) sec-Butylbenzene	13.390	105	1563962	46.41 ug/l	97
95) 1,3-Dichlorobenzene	13.504	146	675829	45.95 ug/l	97
96) 1,4-Dichlorobenzene	13.613	146	745988	48.20 ug/l	99
97) 1,2-Dichlorobenzene	14.065	146	655256	47.47 ug/l	97
98) n-Butylbenzene	14.081	91	1305371	49.59 ug/l	99
99) 1,2-Dibromo-3-Chloropr...	15.007	75	62554	47.20 ug/l	82
100) 1,2,4-Trichlorobenzene	16.068	180	471626	53.15 ug/l	97
101) Hexachloro-1,3-Butadiene	16.313	225	351354	51.28 ug/l	98
102) Naphthalene	16.357	128	1061376	52.84 ug/l	98
103) 1,2,3-Trichlorobenzene	16.667	180	484127	53.88 ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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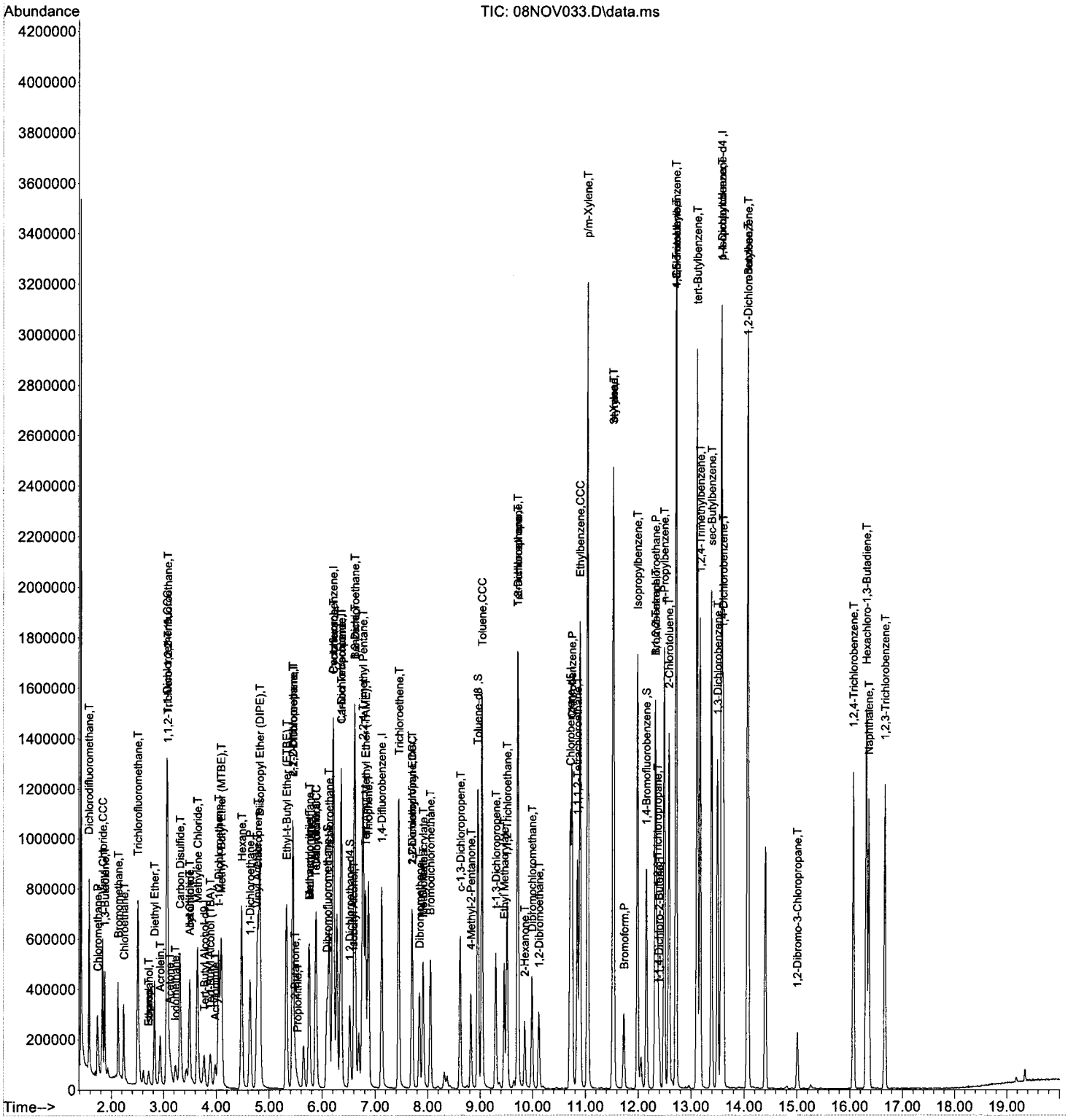
Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV033.D
Acq On : 9 Nov 2013 1:40 am
Sample : MS 0459-4A V101713B/V110113B
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:57:26 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 33
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV034.D Vial: 34
Acq On : 9 Nov 2013 2:09 am Operator: 510
Sample : MSD 0459-4A V101713B/V110113B Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:57:36 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	125313	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	529657	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.125	114	755300	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	688688	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	416623	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	221896	44.46 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 88.92%		
46) 1,2-Dichloroethane-d4	6.520	65	258508	40.24 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 80.48%		
61) Toluene-d8	8.959	98	907569	48.63 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.26%		
80) 1,4-Bromofluorobenzene	12.160	95	323049	47.10 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.20%		

Target Compounds					Qvalue
2) Ethanol	2.710	45	58317	608.36 ug/l	95
3) Tert-Butyl Alcohol (TBA)	3.880	59	178544	263.31 ug/l	95
5) Dichlorodifluoromethane	1.583	85	472617	47.13 ug/l	100
6) Chloromethane	1.741	50	319802	50.78 ug/l	95
7) Vinyl Chloride	1.839	62	379259	49.34 ug/l	97
8) Bromomethane	2.133	94	215456	64.76 ug/l	100
9) Chloroethane	2.242	64	232501	43.88 ug/l	95
10) 1,3-Butadiene	1.877	54	153451	28.53 ug/l	91
11) Trichlorofluoromethane	2.508	101	575669	49.46 ug/l	98
12) Diethyl Ether	2.824	45	152274	44.65 ug/l	92
13) Acetone	3.124	58	35855	45.23 ug/l #	75
14) Iodomethane	3.227	142	189158	38.80 ug/l	90
15) 1,1-Dichloroethene	3.064	61	655789	63.68 ug/l	92
16) 1,1,2-Trichloro-1,2,2-...	3.075	101	298862	41.88 ug/l	95
17) Isopropanol	2.710	45	58905	273.08 ug/l	99
18) Carbon Disulfide	3.309	76	827405	38.72 ug/l	99
19) Acetonitrile	3.494	41	284572	68.34 ug/l	98
20) Acrylonitrile	3.978	53	97855	43.94 ug/l	96
21) Allyl Chloride	3.494	76	108796	37.98 ug/l	94
22) Acrolein	2.939	56	89464	98.16 ug/l #	20
23) Methylene Chloride	3.646	84	284941	42.78 ug/l	94
24) t-1,2-Dichloroethene	4.044	96	296968	44.67 ug/l	99
25) Isobutyl Alcohol	6.580	43	22058	79.25 ug/l #	90
26) Methyl-t-Butyl Ether (...	4.093	73	732010	44.52 ug/l	98
27) Hexane	4.479	57	420740	40.98 ug/l	94
28) 1,1-Dichloroethane	4.637	63	504607	39.98 ug/l	98
29) Vinyl Acetate	4.762	86	32230	41.15 ug/l	97
30) Diisopropyl Ether (DIPE)	4.822	45	906362	43.21 ug/l	93
31) Chloroprene	4.784	53	463563	42.61 ug/l	91
32) Ethyl-t-Butyl Ether (E...	5.328	59	673801	40.06 ug/l	97
33) c-1,2-Dichloroethene	5.453	96	326875	46.60 ug/l	96
34) 2,2-Dichloropropane	5.448	77	314428	39.46 ug/l	99
35) 2-Butanone	5.492	43	136338	42.64 ug/l	100
36) Propionitrile	5.535	54	42267	42.24 ug/l	90
37) Methacrylonitrile	5.747	41	152067	41.07 ug/l	93
38) Bromochloromethane	5.764	130	158937	47.32 ug/l	99
39) Tetrahydrofuran	5.873	42	81059	40.99 ug/l	95
40) Chloroform	5.883	83	535707	43.49 ug/l	98
42) 1,1,1-Trichloroethane	6.128	97	470720	45.64 ug/l	93
43) Cyclohexane	6.216	84	463222	44.10 ug/l	95
44) 1,1-Dichloropropene	6.352	75	400520	42.79 ug/l	95

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV034.D
Acq On : 9 Nov 2013 2:09 am
Sample : MSD 0459-4A V101713B/V110113B
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:57:36 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 34
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.363	117	392532	50.42 ug/l	94
48) Benzene	6.613	78	1235263	46.42 ug/l	95
49) 1,2-Dichloroethane	6.618	62	400460	43.25 ug/l	98
50) Tert-Amyl-Methyl Ether...	6.814	73	601149	42.12 ug/l	99
51) Thiophene	6.869	84	608746	49.00 ug/l	98
52) 2,2,4-Trimethyl Pentane	6.765	57	1252261	46.03 ug/l	98
53) Trichloroethene	7.451	95	421454	62.52 ug/l	96
54) 1,2-Dichloropropane	7.707	63	275760	45.62 ug/l	98
55) Dibromomethane	7.843	93	161898	48.39 ug/l	91
56) Methyl Methacrylate	7.914	69	195931	51.29 ug/l	86
57) 1,4-Dioxane	7.914	88	44520	504.54 ug/l	90
58) Bromodichloromethane	8.055	83	379751	48.73 ug/l	99
59) 2-Chloroethyl Vinyl Ether	7.707	63	275760	46.49 ug/l	95
60) c-1,3-Dichloropropene	8.622	75	388306	49.64 ug/l	97
62) Toluene	9.041	91	1345885	47.83 ug/l	97
63) 4-Methyl-2-Pentanone	8.828	58	102812	50.11 ug/l	100
65) t-1,3-Dichloropropene	9.302	75	321111	45.29 ug/l	98
66) Ethyl Methacrylate	9.460	69	274122	42.03 ug/l	94
67) 1,1,2-Trichloroethane	9.514	83	217377	49.06 ug/l	95
68) Tetrachloroethene	9.721	166	382114	42.88 ug/l	94
69) 1,3-Dichloropropane	9.716	76	432794	47.15 ug/l	96
70) 2-Hexanone	9.846	58	99229	49.41 ug/l	92
71) Dibromochloromethane	9.988	129	265534	58.23 ug/l	100
72) 1,2-Dibromoethane	10.119	107	230683	49.74 ug/l	92
73) Chlorobenzene	10.745	112	814220	47.03 ug/l	99
74) 1,1,1,2-Tetrachloroethane	10.848	131	297997	59.24 ug/l	98
75) Ethylbenzene	10.897	91	1511893	49.36 ug/l	100
76) p/m-Xylene	11.044	91	2304603	88.98 ug/l	97
77) o-Xylene	11.523	91	1102540	46.04 ug/l	99
78) Styrene	11.539	104	844601	47.29 ug/l	97
79) Isopropylbenzene	11.991	105	1335731	45.32 ug/l	98
81) 1,2,3-Trichloropropane	12.367	110	109686	48.16 ug/l	94
82) Bromobenzene	12.334	156	360741	49.34 ug/l	89
83) n-Propylbenzene	12.492	91	1626989	42.04 ug/l	95
84) t-1,4-Dichloro-2-Butene	12.399	53	52920	27.40 ug/l	85
85) 2-Chlorotoluene	12.585	91	946708	43.55 ug/l	99
86) 1,3,5-Trimethylbenzene	12.721	105	1297552	51.70 ug/l	97
88) Bromoform	11.735	173	168148	66.21 ug/l	97
89) 1,1,2,2-Tetrachloroethane	12.323	83	352786	49.47 ug/l	99
90) 4-Chlorotoluene	12.721	91	1116697	44.52 ug/l	96
91) 1,2,4-Trimethylbenzene	13.178	105	1278712	52.06 ug/l	99
92) tert-Butylbenzene	13.118	134	310017	51.02 ug/l	92
93) p-Isopropyltoluene	13.575	119	1348371	48.13 ug/l	97
94) sec-Butylbenzene	13.390	105	1588088	47.42 ug/l	94
95) 1,3-Dichlorobenzene	13.505	146	679010	46.45 ug/l	98
96) 1,4-Dichlorobenzene	13.613	146	753992	49.02 ug/l	98
97) 1,2-Dichlorobenzene	14.065	146	657228	47.91 ug/l	97
98) n-Butylbenzene	14.082	91	1315075	50.27 ug/l	97
99) 1,2-Dibromo-3-Chloropr...	15.007	75	63947	48.56 ug/l	91
100) 1,2,4-Trichlorobenzene	16.068	180	478274	54.23 ug/l	98
101) Hexachloro-1,3-Butadiene	16.313	225	361413	53.08 ug/l	98
102) Naphthalene	16.357	128	1083844	54.30 ug/l	98
103) 1,2,3-Trichlorobenzene	16.667	180	489453	54.82 ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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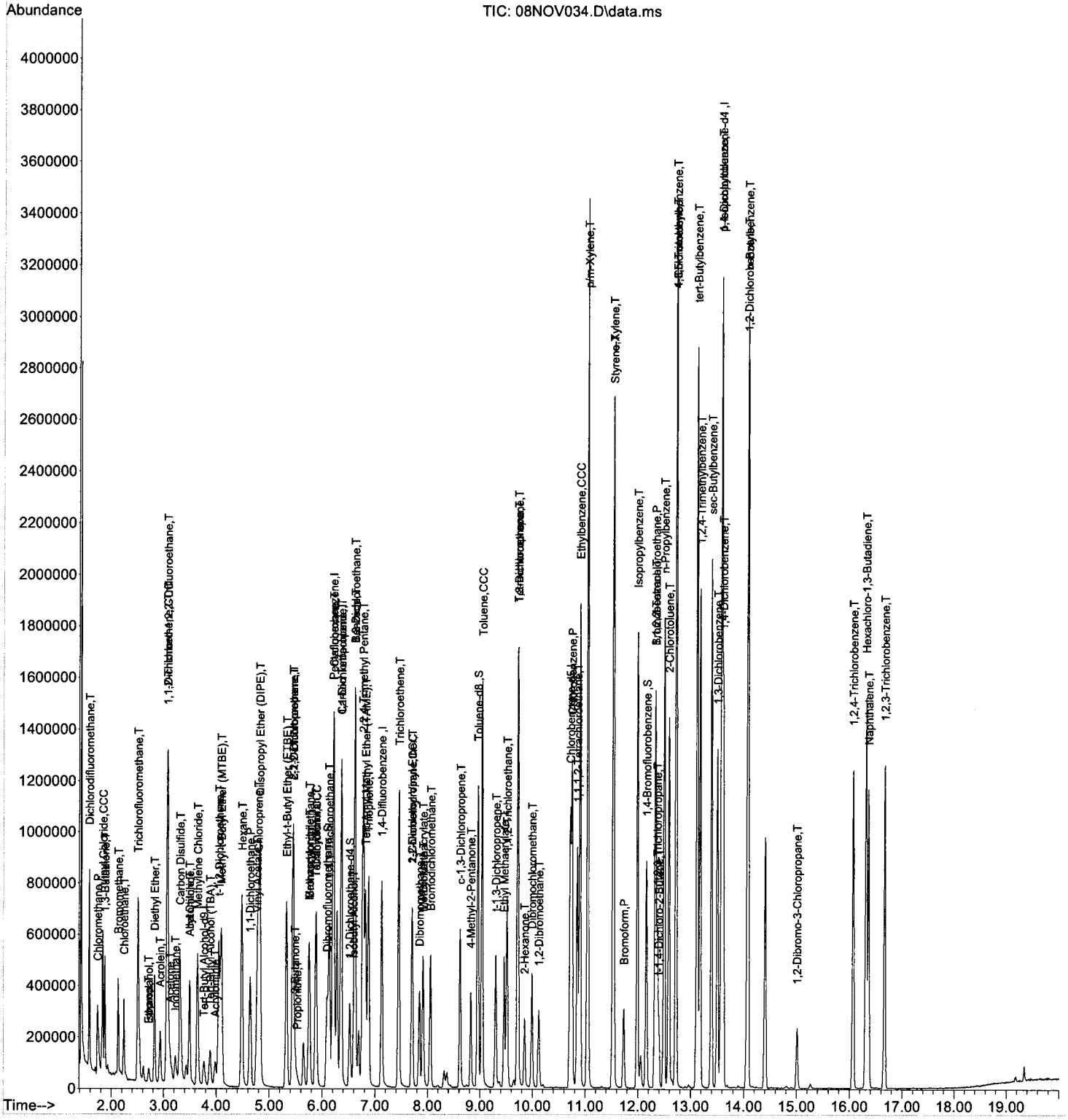
Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV034.D
Acq On : 9 Nov 2013 2:09 am
Sample : MSD 0459-4A V101713B/V110113B
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:57:36 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 34
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV032.D Vial: 32
Acq On : 9 Nov 2013 1:10 am Operator: 510
Sample : 13-11-0459-4A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:57:16 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.766	65	125394	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	430821	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	640899	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	611716	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	331528	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	204223	50.31 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 100.62%		
46) 1,2-Dichloroethane-d4	6.526	65	251317	48.09 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 96.18%		
61) Toluene-d8	8.959	98	768081	48.51 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.02%		
80) 1,4-Bromofluorobenzene	12.160	95	261569	42.93 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.86%		

Target Compounds					Qvalue
2) Ethanol	2.732	45	366	3.82 ug/l #	67
3) Tert-Butyl Alcohol (TBA)	3.896	59	681	1.00 ug/l	91
5) Dichlorodifluoromethane	1.572	85	295	N.D.	
6) Chloromethane	1.741	50	2146	0.42 ug/l	85
7) Vinyl Chloride	1.833	62	211	N.D.	
8) Bromomethane	2.149	94	2027	0.75 ug/l	94
9) Chloroethane	2.225	64	3753	0.87 ug/l	68
10) 1,3-Butadiene	1.888	54	44	N.D.	
11) Trichlorofluoromethane	2.704	101	105	N.D.	
12) Diethyl Ether	2.819	45	551	Below Cal #	32
13) Acetone	3.113	58	2117	Below Cal #	21
14) Iodomethane	3.243	142	783	0.20 ug/l	64
15) 1,1-Dichloroethene	3.064	61	243236	29.04 ug/l	94
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	712	0.12 ug/l #	37
17) Isopropanol	2.732	45	366	2.09 ug/l	99
18) Carbon Disulfide	3.309	76	3458	Below Cal	58
19) Acetonitrile	3.488	41	343	0.10 ug/l	69
20) Acrylonitrile	4.011	53	85	N.D.	
21) Allyl Chloride	3.499	76	151	Below Cal #	1
22) Acrolein	2.928	56	203	0.27 ug/l	93
23) Methylene Chloride	3.608	84	95	N.D.	
24) t-1,2-Dichloroethene	4.038	96	426	N.D.	
25) Isobutyl Alcohol	6.569	43	497	2.20 ug/l #	40
26) Methyl-t-Butyl Ether (...	4.098	73	14414	1.08 ug/l	92
27) Hexane	4.490	57	42	N.D.	
28) 1,1-Dichloroethane	4.637	63	14274	1.39 ug/l	92
29) Vinyl Acetate	4.740	86	52	N.D.	
30) Diisopropyl Ether (DIPE)	4.827	45	986	N.D.	
31) Chloroprene	4.778	53	46	N.D.	
32) Ethyl-t-Butyl Ether (E...	5.344	59	116	N.D.	
33) c-1,2-Dichloroethene	5.459	96	6201	1.09 ug/l	73
34) 2,2-Dichloropropane	5.448	77	247	N.D.	
35) 2-Butanone	5.502	43	1084	0.42 ug/l	51
36) Propionitrile	5.508	54	38	N.D.	
37) Methacrylonitrile	5.753	41	137	N.D.	
38) Bromochloromethane	5.769	130	43	N.D.	
39) Tetrahydrofuran	5.878	42	951	0.59 ug/l	70
40) Chloroform	5.878	83	8788	0.88 ug/l	97
42) 1,1,1-Trichloroethane	6.128	97	135	N.D.	
43) Cyclohexane	6.205	84	10546	1.23 ug/l #	50
44) 1,1-Dichloropropene	6.281	75	180	N.D.	

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV032.D Vial: 32
Acq On : 9 Nov 2013 1:10 am Operator: 510
Sample : 13-11-0459-4A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:57:16 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	123	N.D.	
48) Benzene	6.607	78	11146	0.49 ug/l	93
49) 1,2-Dichloroethane	6.624	62	2167	0.28 ug/l #	49
50) Tert-Amyl-Methyl Ether...	6.814	73	74	N.D.	
51) Thiophene	6.869	84	175	N.D.	
52) 2,2,4-Trimethyl Pentane	6.765	57	982	N.D.	
53) Trichloroethene	7.451	95	109006	19.06 ug/l	97
54) 1,2-Dichloropropane	7.702	63	110	N.D.	
55) Dibromomethane	7.854	93	39	N.D.	
56) Methyl Methacrylate	7.908	69	504	3.42 ug/l #	23
57) 1,4-Dioxane	7.800	88	55	0.73 ug/l	99
58) Bromodichloromethane	8.055	83	251	N.D.	
59) 2-Chloroethyl Vinyl Ether	7.702	63	110	N.D.	
60) c-1,3-Dichloropropene	8.594	75	59	N.D.	
62) Toluene	9.041	91	17488	0.73 ug/l	85
63) 4-Methyl-2-Pentanone	8.828	58	64	N.D.	
65) t-1,3-Dichloropropene	9.335	75	51	N.D.	
66) Ethyl Methacrylate	9.460	69	179	4.62 ug/l	60
67) 1,1,2-Trichloroethane	9.525	83	101	N.D.	
68) Tetrachloroethene	9.727	166	757	N.D.	
69) 1,3-Dichloropropane	9.629	76	72	N.D.	
70) 2-Hexanone	9.835	58	54	N.D.	
71) Dibromochloromethane	9.988	129	78	N.D.	
72) 1,2-Dibromoethane	10.140	107	41	N.D.	
73) Chlorobenzene	10.755	112	1033	N.D.	
74) 1,1,1,2-Tetrachloroethane	10.842	131	122	N.D.	
75) Ethylbenzene	10.897	91	3164	0.12 ug/l	100
76) p/m-Xylene	11.044	91	5585	0.24 ug/l	95
77) o-Xylene	11.523	91	2400	0.11 ug/l	92
78) Styrene	11.474	104	34	N.D.	
79) Isopropylbenzene	11.991	105	1115	N.D.	
81) 1,2,3-Trichloropropane	12.372	110	44	N.D.	
82) Bromobenzene	12.334	156	352	N.D.	
83) n-Propylbenzene	12.492	91	1514	N.D.	
84) t-1,4-Dichloro-2-Butene	12.410	53	37	N.D.	
85) 2-Chlorotoluene	12.579	91	1133	N.D.	
86) 1,3,5-Trimethylbenzene	12.710	105	1102	N.D.	
88) Bromoform	11.762	173	53	N.D.	
89) 1,1,2,2-Tetrachloroethane	12.410	83	50	N.D.	
90) 4-Chlorotoluene	12.726	91	1513	N.D.	
91) 1,2,4-Trimethylbenzene	13.189	105	1570	N.D.	
92) tert-Butylbenzene	13.102	134	47	N.D.	
93) p-Isopropyltoluene	13.575	119	1814	N.D.	
94) sec-Butylbenzene	13.385	105	1648	N.D.	
95) 1,3-Dichlorobenzene	13.504	146	1321	0.11 ug/l	83
96) 1,4-Dichlorobenzene	13.613	146	1257	0.10 ug/l	94
97) 1,2-Dichlorobenzene	14.065	146	795	N.D.	
98) n-Butylbenzene	14.081	91	1505	N.D.	
99) 1,2-Dibromo-3-Chloropr...	15.018	75	48	N.D.	
100) 1,2,4-Trichlorobenzene	16.079	180	925	0.13 ug/l	90
101) Hexachloro-1,3-Butadiene	16.297	225	954	0.18 ug/l #	64
102) Naphthalene	16.357	128	1601	0.10 ug/l	77
103) 1,2,3-Trichlorobenzene	16.673	180	1046	0.15 ug/l	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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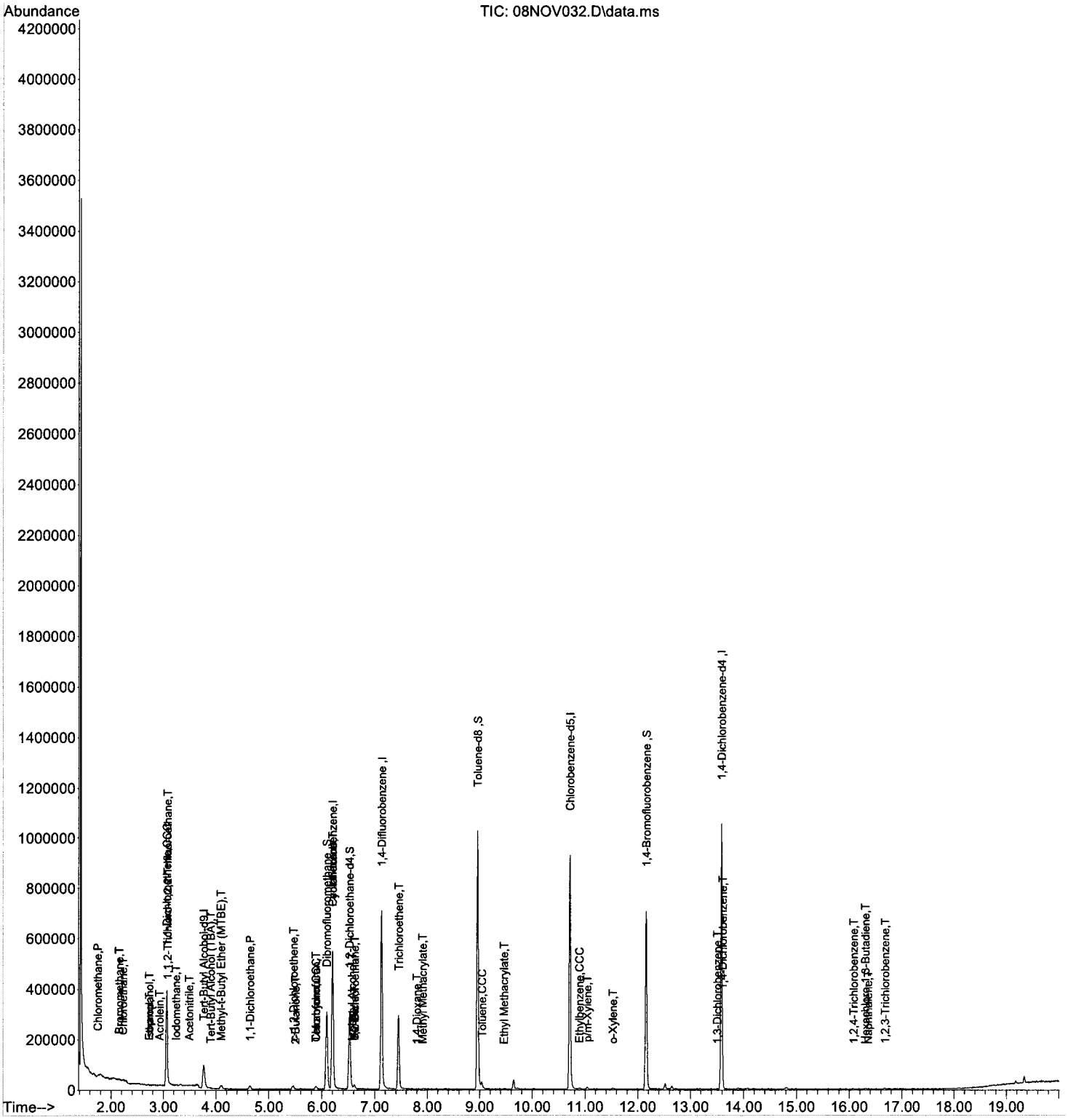
Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV032.D Vial: 32
Acq On : 9 Nov 2013 1:10 am Operator: 510
Sample : 13-11-0459-4A 5ML pH<2. Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:57:16 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



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EPA METHOD 8260B

Continuing Calibration

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CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8260B

BATCH ID: **131108B** ANALYZED BY: 510
INSTRUMENT: GC/MS W

WORK ORDER: **099-15-001** REVIEWED BY:
MATRIX: Water D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
11401	Daily Calibration	11/08/2013 22:11	W:\GCMS_W_DATA\2013\131108\08NOV026.D\08NOV026.rr

WORK ORDER: **13-11-0600** REVIEWED BY: 163
MATRIX: Water D/T REVIEWED: 11/13/2013 12:57

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
1	QCTB-11072013	11/09/2013 00:40	W:\GCMS_W_DATA\2013\131108\08NOV031.D\08NOV031.rr
2	13-GW-27-32	11/09/2013 06:38	W:\GCMS_W_DATA\2013\131108\08NOV043.D\08NOV043.rr
4	11-GW-31-36	11/09/2013 07:08	W:\GCMS_W_DATA\2013\131108\08NOV044.D\08NOV044.rr
5	110-GW-31-36	11/09/2013 07:38	W:\GCMS_W_DATA\2013\131108\08NOV045.D\08NOV045.rr
6	1-GW-19-24	11/09/2013 08:08	W:\GCMS_W_DATA\2013\131108\08NOV046.D\08NOV046.rr

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

CCV WORK ORDER: 099-15-001-11401-4410
INSTRUMENT NAME: GC/MS W
INITIAL BATCH: 131022IC
INITIAL DATE ANALYZED: 10/22/13 12:36
ANALYST: 510

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131108B
CCV DATE ANALYZED: 11/8/13 22:11

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Acetone	LR - Equal				50.00	43.906	12	0-20	PASS
Benzene	Avg Resp	0.00	1.761	1.764			0	0-20	PASS
Bromobenzene	Avg Resp	0.00	0.531	0.562			-6	0-20	PASS
Bromochloromethane	Avg Resp	0.00	0.317	0.293			8	0-20	PASS
Bromodichloromethane	Avg Resp	0.00	0.516	0.530			-3	0-20	PASS
Bromoform	**Avg Resp**	**0.10**	**0.305**	**0.393**			**-29**	0-20	**FAIL**
Bromomethane	**Avg Resp**	**0.00**	**0.314**	**0.417**			**-33**	0-20	**FAIL**
2-Butanone	**Avg Resp**	**0.00**	**0.302**	**0.237**			**22**	0-20	**FAIL**
n-Butylbenzene	Avg Resp	0.00	3.139	3.350			-7	0-20	PASS
sec-Butylbenzene	Avg Resp	0.00	4.019	4.252			-6	0-20	PASS
tert-Butylbenzene	Avg Resp	0.00	0.729	0.812			-11	0-20	PASS
Carbon Disulfide	LR - Equal				50.00	49.105	2	0-20	PASS
Carbon Tetrachloride	Avg Resp	0.00	0.735	0.794			-8	0-20	PASS
Chlorobenzene	Avg Resp	0.30	1.257	1.268			-1	0-20	PASS
Chloroethane	Avg Resp	0.00	0.500	0.442			12	0-20	PASS
Chloroform	Avg Resp	0.00	1.163	1.008			13	0-20	PASS
Chloromethane	Avg Resp	0.10	0.594	0.534			10	0-20	PASS
2-Chlorotoluene	Avg Resp	0.00	1.578	1.565			1	0-20	PASS
4-Chlorotoluene	Avg Resp	0.00	3.010	2.984			1	0-20	PASS
Dibromochloromethane	Avg Resp	0.00	0.331	0.392			-18	0-20	PASS
1,2-Dibromo-3-Chloropropane	Avg Resp	0.00	0.158	0.158			0	0-20	PASS
1,2-Dibromoethane	Avg Resp	0.00	0.337	0.357			-6	0-20	PASS
Dibromomethane	Avg Resp	0.00	0.221	0.224			-1	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.646	1.715			-4	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.754	1.802			-3	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.846	1.840			0	0-20	PASS
Dichlorodifluoromethane	Avg Resp	0.00	0.947	0.847			11	0-20	PASS
1,1-Dichloroethane	Avg Resp	0.10	1.192	0.966			19	0-20	PASS
1,2-Dichloroethane	Avg Resp	0.00	0.613	0.557			9	0-20	PASS
1,1-Dichloroethene	Avg Resp	0.00	0.972	0.859			12	0-20	PASS
c-1,2-Dichloroethene	Avg Resp	0.00	0.662	0.613			7	0-20	PASS
t-1,2-Dichloroethene	Avg Resp	0.00	0.628	0.573			9	0-20	PASS
1,2-Dichloropropane	Avg Resp	0.00	0.400	0.385			4	0-20	PASS
1,3-Dichloropropane	Avg Resp	0.00	0.666	0.652			2	0-20	PASS
2,2-Dichloropropane	Avg Resp	0.00	0.752	0.664			12	0-20	PASS
1,1-Dichloropropene	Avg Resp	0.00	0.884	0.802			9	0-20	PASS
c-1,3-Dichloropropene	Avg Resp	0.00	0.518	0.547			-6	0-20	PASS
t-1,3-Dichloropropene	Avg Resp	0.00	0.515	0.542			-5	0-20	PASS

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

CCV WORK ORDER: 099-15-001-11401-4410
INSTRUMENT NAME: GC/MS W
INITIAL BATCH: 131022IC
INITIAL DATE ANALYZED: 10/22/13 12:36
ANALYST: 510

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131108B
CCV DATE ANALYZED: 11/8/13 22:11

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Ethylbenzene	Avg Resp	0.00	2.224	2.258			-2	0-20	PASS
2-Hexanone	Avg Resp	0.00	0.146	0.141			3	0-20	PASS
Isopropylbenzene	Avg Resp	0.00	2.140	2.261			-6	0-20	PASS
p-Isopropyltoluene	Avg Resp	0.00	3.362	3.592			-7	0-20	PASS
Methylene Chloride	Avg Resp	0.00	0.629	0.562			11	0-20	PASS
4-Methyl-2-Pentanone	Avg Resp	0.00	0.136	0.132			3	0-20	PASS
Naphthalene	Avg Resp	0.00	2.395	2.561			-7	0-20	PASS
n-Propylbenzene	Avg Resp	0.00	2.810	2.813			0	0-20	PASS
Styrene	Avg Resp	0.00	1.297	1.399			-8	0-20	PASS
1,1,1,2-Tetrachloroethane	Avg Resp	0.00	0.365	0.431			-18	0-20	PASS
1,1,2,2-Tetrachloroethane	Avg Resp	0.30	0.856	0.835			2	0-20	PASS
Tetrachloroethene	Avg Resp	0.00	0.647	0.599			7	0-20	PASS
Toluene	Avg Resp	0.00	1.863	1.830			2	0-20	PASS
1,2,3-Trichlorobenzene	Avg Resp	0.00	1.072	1.212			-13	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	1.058	1.150			-9	0-20	PASS
1,1,1-Trichloroethane	Avg Resp	0.00	0.974	0.941			3	0-20	PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp	0.00	0.674	0.635			6	0-20	PASS
1,1,2-Trichloroethane	Avg Resp	0.00	0.322	0.308			4	0-20	PASS
Trichloroethene	Avg Resp	0.00	0.446	0.438			2	0-20	PASS
Trichlorofluoromethane	Avg Resp	0.00	1.099	1.111			-1	0-20	PASS
1,2,3-Trichloropropane	Avg Resp	0.00	0.165	0.163			1	0-20	PASS
1,2,4-Trimethylbenzene	Avg Resp	0.00	2.948	3.172			-8	0-20	PASS
1,3,5-Trimethylbenzene	Avg Resp	0.00	1.822	1.987			-9	0-20	PASS
Vinyl Acetate	Avg Resp	0.00	0.074	0.078			-6	0-20	PASS
Vinyl Chloride	Avg Resp	0.00	0.726	0.709			2	0-20	PASS
p/m-Xylene	Avg Resp	0.00	1.880	1.816			3	0-20	PASS
o-Xylene	Avg Resp	0.00	1.739	1.770			-2	0-20	PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp	0.00	1.552	1.316			15	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_W_DATA\2013\131108\08NOV026.D\08NOV026.rr

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Evaluate Continuing Calibration Report

Data File : W:\GCMS W DATA\2013\131108\08NOV026.D Vial: 26
Acq On : 8 Nov 2013 10:11 pm Operator: 510
Sample : BFB/CCV V101713A/V110113A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:25 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Tert-Butyl Alcohol-d9	1.000	1.000	0	97	0.00
2	T	Ethanol	0.191	0.234	-23#	114	0.00
3	T	Tert-Butyl Alcohol (TBA)	1.353	1.434	-6	102	0.01
4	I	Pentafluorobenzene	1.000	1.000	0	102	0.00
5	T	Dichlorodifluoromethane	0.947	0.847	11	93	0.00
6	P	Chloromethane	0.594	0.534	10	98	0.00
7	CCC	Vinyl Chloride	0.726	0.709	2	103	0.00
8	T	Bromomethane	0.314	0.417	-33#	137	0.00
9	T	Chloroethane	0.500	0.442	12	110	0.00
10	T	1,3-Butadiene	0.508	0.466	8	93	0.00
11	T	Trichlorofluoromethane	1.099	1.111	-1	106	0.00
12	T	Diethyl Ether	0.365	0.309	15	97	0.00
13	T	Acetone	0.081	0.066#	19	83	0.00
14	T	Iodomethane	0.460	0.186	60#	35#	0.00
15	CCC	1,1-Dichloroethene	0.972	0.859	12	89	0.00
16	T	1,1,2-Trichloro-1,2,2-Trifl	0.674	0.635	6	92	0.00
17	T	Isopropanol	0.020	0.022#	-10	112	0.00
18	T	Carbon Disulfide	2.233	1.948	13	91	0.00
19	T	Acetonitrile	0.393	0.327	17	87	0.00
20	T	Acrylonitrile	0.210	0.183	13	89	0.00
21	T	Allyl Chloride	0.312	0.251	20	94	0.00
22	T	Acrolein	0.086	0.088#	-2	98	0.00
23	T	Methylene Chloride	0.629	0.562	11	91	0.00
24	T	t-1,2-Dichloroethene	0.628	0.573	9	91	0.00
25	T	Isobutyl Alcohol	0.026	0.021#	19	87	0.00
26	T	Methyl-t-Butyl Ether (MTBE)	1.552	1.316	15	87	0.00
27	T	Hexane	0.969	0.859	11	85	0.00
28	P	1,1-Dichloroethane	1.192	0.966	19	84	0.00
29	T	Vinyl Acetate	0.074	0.078#	-5	109	0.00
30	T	Diisopropyl Ether (DIPE)	1.980	1.656	16	83	0.00
31	T	Chloroprene	1.027	0.877	15	82	0.00
32	T	Ethyl-t-Butyl Ether (ETBE)	1.588	1.256	21#	79	0.00
33	T	c-1,2-Dichloroethene	0.662	0.613	7	93	0.00
34	T	2,2-Dichloropropane	0.752	0.664	12	101	0.00
35	T	2-Butanone	0.302	0.237	22#	81	0.00
36	T	Propionitrile	0.094	0.083#	12	89	0.00
37	T	Methacrylonitrile	0.350	0.283	19	81	0.00
38	T	Bromochloromethane	0.317	0.293	8	99	0.00
39	T	Tetrahydrofuran	0.187	0.154	18	82	0.00
40	CCC	Chloroform	1.163	1.008	13	89	0.00
41	S	Dibromofluoromethane	0.471	0.428	9	97	0.00
42	T	1,1,1-Trichloroethane	0.974	0.941	3	97	0.00
43	T	Cyclohexane	0.992	0.915	8	92	0.00
44	T	1,1-Dichloropropene	0.884	0.802	9	92	0.00
45	T	Carbon Tetrachloride	0.735	0.794	-8	109	0.00
46	S	1,2-Dichloroethane-d4	0.607	0.492	19	89	0.00
47	I	1,4-Difluorobenzene	1.000	1.000	0	93	0.00
48	T	Benzene	1.761	1.764	0	92	0.00
49	T	1,2-Dichloroethane	0.613	0.557	9	88	0.00
50	T	Tert-Amyl-Methyl Ether (TAM	0.945	0.810	14	77	0.00
51	T	Thiophene	0.822	0.844	-3	92	0.00
52	T	2,2,4-Trimethyl Pentane	1.801	1.781	1	85	0.00

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Evaluate Continuing Calibration Report

Data File : W:\GCMS W DATA\2013\131108\08NOV026.D Vial: 26
Acq On : 8 Nov 2013 10:11 pm Operator: 510
Sample : BFB/CCV V101713A/V110113A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:25 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53	T	Trichloroethene	0.446	0.438	2	90	0.00
54	CCC	1,2-Dichloropropane	0.400	0.385	4	91	0.00
55	T	Dibromomethane	0.221	0.224	-1	95	0.00
56	T	Methyl Methacrylate	0.237	0.249	-5	99	0.00
57	T	1,4-Dioxane	0.006	0.006#	0	88	0.00
58	T	Bromodichloromethane	0.516	0.530	-3	95	0.00
59	T	2-Chloroethyl Vinyl Ether	0.393	0.384	2	91	0.00
60	T	c-1,3-Dichloropropene	0.518	0.547	-6	93	0.00
61	S	Toluene-d8	1.235	1.207	2	91	0.00
62	CCC	Toluene	1.863	1.830	2	90	0.00
63	T	4-Methyl-2-Pentanone	0.136	0.132	3	88	0.00
64	I	Chlorobenzene-d5	1.000	1.000	0	94	0.00
65	T	t-1,3-Dichloropropene	0.515	0.542	-5	95	0.00
66	T	Ethyl Methacrylate	0.441	0.466	-6	98	0.00
67	T	1,1,2-Trichloroethane	0.322	0.308	4	91	0.00
68	T	Tetrachloroethene	0.647	0.599	7	91	0.00
69	T	1,3-Dichloropropane	0.666	0.652	2	93	0.00
70	T	2-Hexanone	0.146	0.141	3	90	0.00
71	T	Dibromochloromethane	0.331	0.392	-18	109	0.00
72	T	1,2-Dibromoethane	0.337	0.357	-6	98	0.00
73	P	Chlorobenzene	1.257	1.268	-1	95	0.00
74	T	1,1,1,2-Tetrachloroethane	0.365	0.431	-18	109	0.00
75	CCC	Ethylbenzene	2.224	2.258	-2	89	0.00
76	T	p/m-Xylene	1.880	1.816	3	89	0.00
77	T	o-Xylene	1.739	1.770	-2	90	0.00
78	T	Styrene	1.297	1.399	-8	92	0.00
79	T	Isopropylbenzene	2.140	2.261	-6	91	0.00
80	S	1,4-Bromofluorobenzene	0.498	0.476	4	87	0.00
81	T	1,2,3-Trichloropropane	0.165	0.163	1	93	0.00
82	T	Bromobenzene	0.531	0.562	-6	97	0.00
83	T	n-Propylbenzene	2.810	2.813	0	88	0.00
84	T	t-1,4-Dichloro-2-Butene	0.140	0.124	11	85	0.00
85	T	2-Chlorotoluene	1.578	1.565	1	90	0.00
86	T	1,3,5-Trimethylbenzene	1.822	1.987	-9	91	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	94	0.00
88	P	Bromoform	0.305	0.393	-29#	124	0.00
89	P	1,1,2,2-Tetrachloroethane	0.856	0.835	2	97	0.00
90	T	4-Chlorotoluene	3.010	2.984	1	88	0.00
91	T	1,2,4-Trimethylbenzene	2.948	3.172	-8	91	0.00
92	T	tert-Butylbenzene	0.729	0.812	-11	96	0.00
93	T	p-Isopropyltoluene	3.362	3.592	-7	91	0.00
94	T	sec-Butylbenzene	4.019	4.252	-6	91	0.00
95	T	1,3-Dichlorobenzene	1.754	1.802	-3	96	0.00
96	T	1,4-Dichlorobenzene	1.846	1.840	0	96	0.00
97	T	1,2-Dichlorobenzene	1.646	1.715	-4	100	0.00
98	T	n-Butylbenzene	3.139	3.350	-7	89	0.00
99	T	1,2-Dibromo-3-Chloropropane	0.158	0.158	0	98	0.00
100	T	1,2,4-Trichlorobenzene	1.058	1.150	-9	100	0.00
101	T	Hexachloro-1,3-Butadiene	0.817	0.837	-2	100	0.00
102	T	Naphthalene	2.395	2.561	-7	98	0.00
103	T	1,2,3-Trichlorobenzene	1.072	1.212	-13	102	0.00

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Evaluate Continuing Calibration Report

Data File : W:\GCMS W DATA\2013\131108\08NOV026.D Vial: 26
Acq On : 8 Nov 2013 10:11 pm Operator: 510
Sample : BFB/CCV V101713A/V110113A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:25 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV026.D Vial: 26
Acq On : 8 Nov 2013 10:11 pm Operator: 510
Sample : BFB/CCV V101713A/V110113A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:25 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert-Butyl Alcohol-d9	3.771	65	125319	250.00 ug/l	0.00
4) Pentafluorobenzene	6.199	168	525642	50.00 ug/l	0.00
47) 1,4-Difluorobenzene	7.130	114	721764	50.00 ug/l	0.00
64) Chlorobenzene-d5	10.712	117	660036	50.00 ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.586	152	412940	50.00 ug/l	0.00
System Monitoring Compounds					
41) Dibromofluoromethane	6.090	113	224763	45.38 ug/l	0.00
Spiked Amount 50.000	Range 80 - 126		Recovery = 90.76%		
46) 1,2-Dichloroethane-d4	6.520	65	258722	40.58 ug/l	0.00
Spiked Amount 50.000	Range 80 - 134		Recovery = 81.16%		
61) Toluene-d8	8.959	98	871446	48.87 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.74%		
80) 1,4-Bromofluorobenzene	12.160	95	313984	47.76 ug/l	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.52%		

Target Compounds					Qvalue
2) Ethanol	2.715	45	58752	612.87 ug/l	93
3) Tert-Butyl Alcohol (TBA)	3.886	59	179721	265.03 ug/l	93
5) Dichlorodifluoromethane	1.583	85	445008	44.72 ug/l	97
6) Chloromethane	1.741	50	280548	44.89 ug/l	96
7) Vinyl Chloride	1.839	62	372768	48.86 ug/l	100
8) Bromomethane	2.133	94	219041	66.34 ug/l	98
9) Chloroethane	2.242	64	232247	44.16 ug/l	98
10) 1,3-Butadiene	1.877	54	244946	45.88 ug/l	90
11) Trichlorofluoromethane	2.508	101	584023	50.57 ug/l	98
12) Diethyl Ether	2.824	45	162463	48.18 ug/l	91
13) Acetone	3.123	58	34731	43.91 ug/l #	64
14) Iodomethane	3.221	142	195400	40.38 ug/l	93
15) 1,1-Dichloroethene	3.058	61	451609	44.19 ug/l	93
16) 1,1,2-Trichloro-1,2,2-...	3.080	101	333841	47.14 ug/l	93
17) Isopropanol	2.715	45	58752	274.45 ug/l	100
18) Carbon Disulfide	3.309	76	1023993	49.11 ug/l	99
19) Acetonitrile	3.494	41	343291	83.08 ug/l	97
20) Acrylonitrile	3.984	53	96028	43.45 ug/l	97
21) Allyl Chloride	3.499	76	131756	47.11 ug/l	89
22) Acrolein	2.938	56	92628	102.41 ug/l #	37
23) Methylene Chloride	3.646	84	295481	44.70 ug/l	97
24) t-1,2-Dichloroethene	4.049	96	300954	45.61 ug/l	99
25) Isobutyl Alcohol	6.580	43	22078	79.93 ug/l	82
26) Methyl-t-Butyl Ether (...	4.098	73	691786	42.40 ug/l	97
27) Hexane	4.484	57	451384	44.30 ug/l	94
28) 1,1-Dichloroethane	4.642	63	507588	40.52 ug/l	98
29) Vinyl Acetate	4.762	86	41102	52.87 ug/l #	87
30) Diisopropyl Ether (DIPE)	4.822	45	870351	41.81 ug/l	94
31) Chloroprene	4.784	53	461061	42.70 ug/l	94
32) Ethyl-t-Butyl Ether (E...	5.328	59	660347	39.56 ug/l	99
33) c-1,2-Dichloroethene	5.453	96	322354	46.30 ug/l	98
34) 2,2-Dichloropropane	5.453	77	349023	44.13 ug/l	100
35) 2-Butanone	5.491	43	124443	39.21 ug/l	98
36) Propionitrile	5.535	54	43624	43.93 ug/l	90
37) Methacrylonitrile	5.753	41	149011	40.55 ug/l	92
38) Bromochloromethane	5.764	130	153934	46.18 ug/l	95
39) Tetrahydrofuran	5.872	42	80774	41.15 ug/l	91
40) Chloroform	5.889	83	529856	43.34 ug/l	99
42) 1,1,1-Trichloroethane	6.134	97	494725	48.33 ug/l	95
43) Cyclohexane	6.215	84	481203	46.16 ug/l	94
44) 1,1-Dichloropropene	6.357	75	421754	45.41 ug/l	93

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Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV026.D Vial: 26
Acq On : 8 Nov 2013 10:11 pm Operator: 510
Sample : BFB/CCV V101713A/V110113A Inst : GCMS W
Misc : V100113A Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 11 10:56:25 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) Carbon Tetrachloride	6.362	117	417509	54.03 ug/l	97
48) Benzene	6.613	78	1273368	50.08 ug/l	96
49) 1,2-Dichloroethane	6.618	62	402197	45.45 ug/l	97
50) Tert-Amyl-Methyl Ether...	6.814	73	584539	42.85 ug/l	98
51) Thiophene	6.874	84	609415	51.33 ug/l	96
52) 2,2,4-Trimethyl Pentane	6.765	57	1285445	49.45 ug/l	96
53) Trichloroethene	7.451	95	315872	49.04 ug/l	91
54) 1,2-Dichloropropane	7.707	63	277591	48.06 ug/l	99
55) Dibromomethane	7.848	93	161929	50.64 ug/l	91
56) Methyl Methacrylate	7.914	69	179602	49.34 ug/l	86
57) 1,4-Dioxane	7.919	88	42071	498.94 ug/l	90
58) Bromodichloromethane	8.055	83	382453	51.36 ug/l	99
59) 2-Chloroethyl Vinyl Ether	7.707	63	277301	48.93 ug/l	98
60) c-1,3-Dichloropropene	8.621	75	394594	52.79 ug/l	99
62) Toluene	9.041	91	1320816	49.12 ug/l	100
63) 4-Methyl-2-Pentanone	8.823	58	95410	48.67 ug/l	90
65) t-1,3-Dichloropropene	9.302	75	357543	52.62 ug/l	98
66) Ethyl Methacrylate	9.460	69	307594	48.43 ug/l	96
67) 1,1,2-Trichloroethane	9.514	83	203425	47.90 ug/l	90
68) Tetrachloroethene	9.721	166	395390	46.29 ug/l	99
69) 1,3-Dichloropropane	9.716	76	430597	48.94 ug/l	99
70) 2-Hexanone	9.846	58	92900	48.27 ug/l	94
71) Dibromochloromethane	9.988	129	258810	59.22 ug/l	97
72) 1,2-Dibromoethane	10.118	107	235322	52.95 ug/l	100
73) Chlorobenzene	10.750	112	837205	50.46 ug/l	99
74) 1,1,1,2-Tetrachloroethane	10.848	131	284599	59.04 ug/l	95
75) Ethylbenzene	10.897	91	1490041	50.76 ug/l	99
76) p/m-Xylene	11.044	91	2397134	96.57 ug/l	95
77) o-Xylene	11.528	91	1168582	50.92 ug/l	98
78) Styrene	11.539	104	923479	53.95 ug/l	94
79) Isopropylbenzene	11.991	105	1492365	52.83 ug/l	99
81) 1,2,3-Trichloropropane	12.372	110	107506	49.25 ug/l #	85
82) Bromobenzene	12.334	156	371270	52.99 ug/l	93
83) n-Propylbenzene	12.492	91	1856499	50.05 ug/l	96
84) t-1,4-Dichloro-2-Butene	12.399	53	81864	44.23 ug/l	82
85) 2-Chlorotoluene	12.584	91	1032963	49.58 ug/l	99
86) 1,3,5-Trimethylbenzene	12.720	105	1311397	54.52 ug/l	97
88) Bromoform	11.735	173	162209	64.44 ug/l	96
89) 1,1,2,2-Tetrachloroethane	12.323	83	345006	48.81 ug/l	97
90) 4-Chlorotoluene	12.720	91	1232096	49.56 ug/l	96
91) 1,2,4-Trimethylbenzene	13.178	105	1309662	53.79 ug/l	97
92) tert-Butylbenzene	13.118	134	335167	55.65 ug/l	92
93) p-Isopropyltoluene	13.575	119	1483484	53.43 ug/l	97
94) sec-Butylbenzene	13.390	105	1755918	52.90 ug/l	96
95) 1,3-Dichlorobenzene	13.504	146	744067	51.36 ug/l	98
96) 1,4-Dichlorobenzene	13.613	146	759927	49.85 ug/l	98
97) 1,2-Dichlorobenzene	14.065	146	708112	52.08 ug/l	96
98) n-Butylbenzene	14.081	91	1383341	53.35 ug/l	99
99) 1,2-Dibromo-3-Chloropr...	15.007	75	65079	49.86 ug/l	91
100) 1,2,4-Trichlorobenzene	16.068	180	474815	54.32 ug/l	97
101) Hexachloro-1,3-Butadiene	16.313	225	345515	51.19 ug/l	97
102) Naphthalene	16.357	128	1057479	53.45 ug/l	100
103) 1,2,3-Trichlorobenzene	16.667	180	500463	56.55 ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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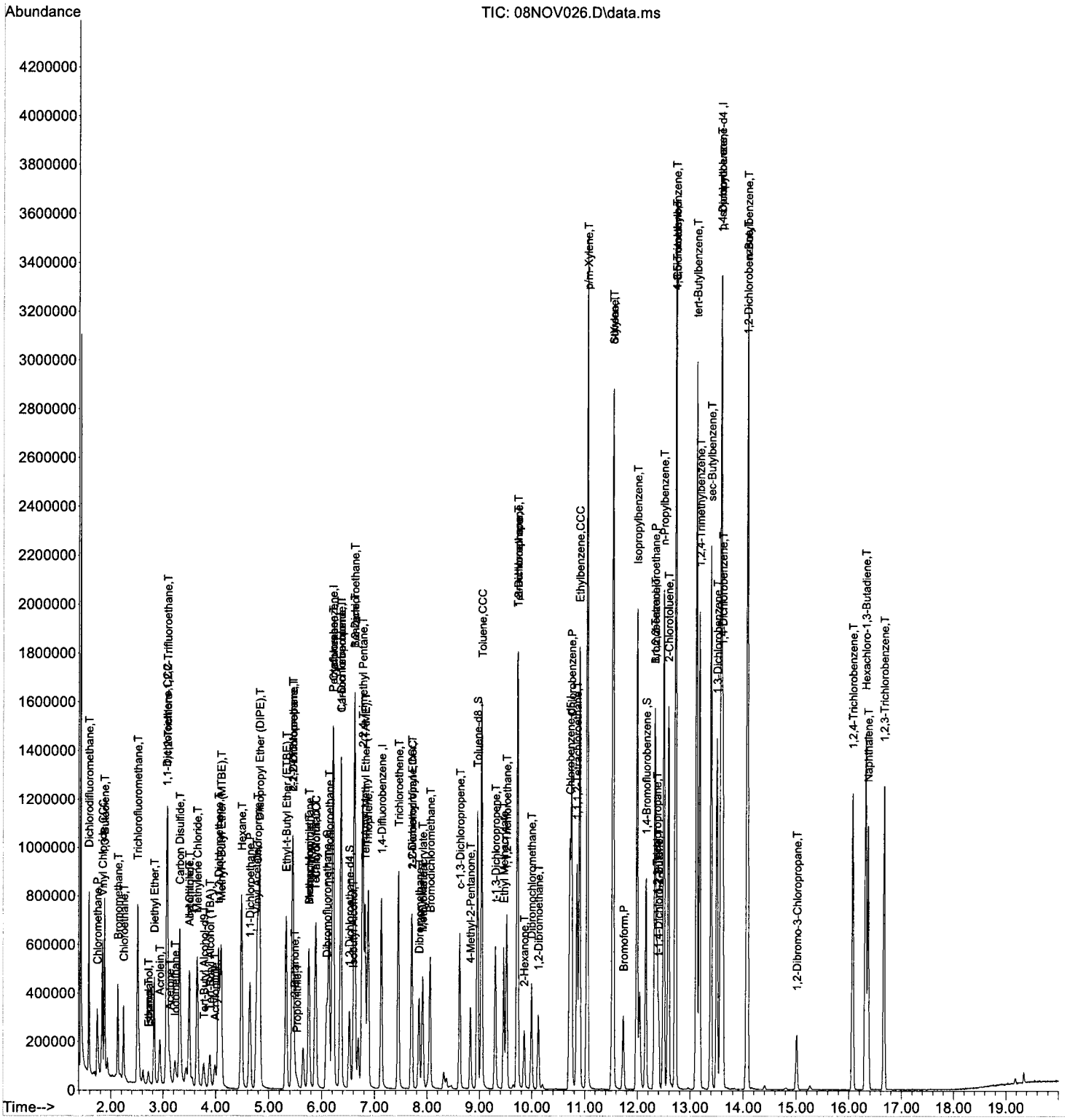
Quantitation Report (Not Reviewed)

Data File : W:\GCMS W DATA\2013\131108\08NOV026.D
Acq On : 8 Nov 2013 10:11 pm
Sample : BFB/CCV V101713A/V110113A
Misc : V100113A
Integrator: RTE
Quant Time: Nov 11 10:56:25 2013
Quant Results File: 131022.RES
Quant Method : C:\MSDCHEM\1\METHODS\131022.M

Vial: 26
Operator: 510
Inst : GCMS W
Multiplr: 1.00

Quant Title : EPA 8260B/8260C
Operator : 510
QLast Update : Mon Nov 11 09:18:27 2013
Response via : Initial Calibration



EPA METHOD 8260B

Tuning Report

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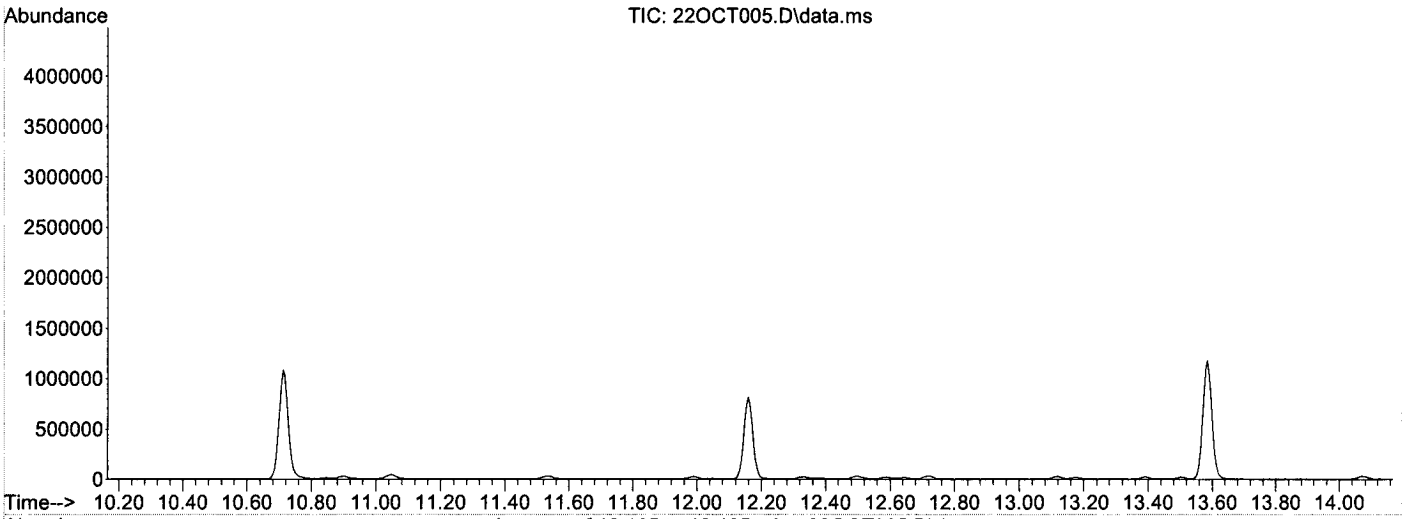
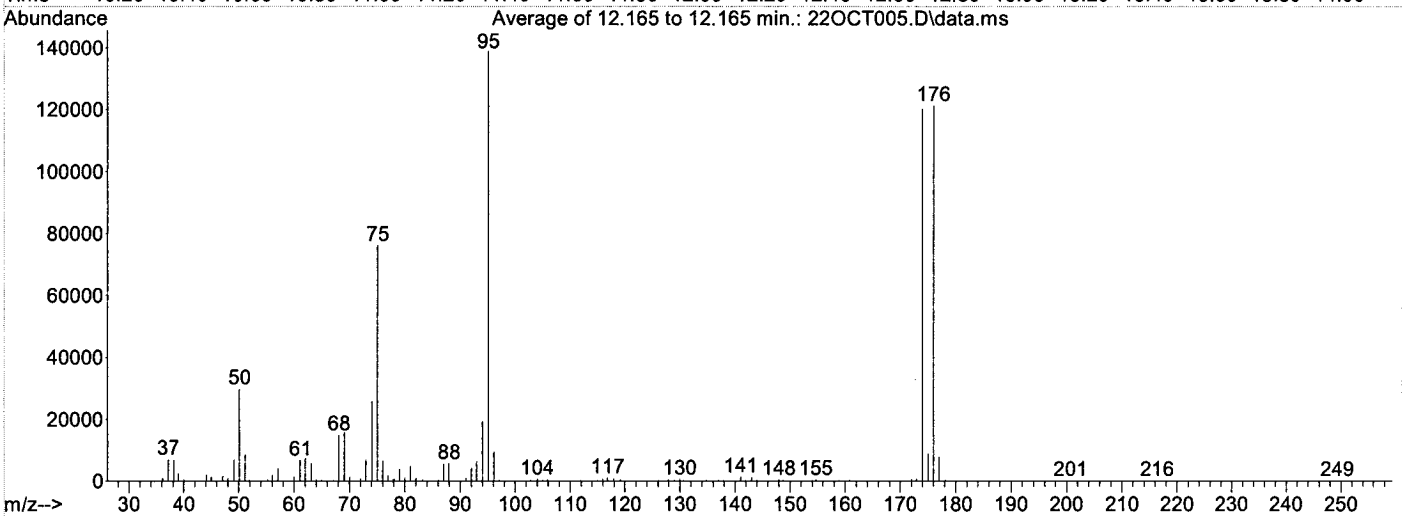
Data Path : W:\GCMS W DATA\2013\131022\
Data File : 22OCT005.D
Acq On : 22 Oct 2013 12:36 pm
Operator : 486
Sample : BFB/0.5PPB IC V101713A/V101813A
Misc : V100113A
ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\131231.M
Title : EPA 8260B/8260C
Last Update : Thu Jan 02 10:56:11 2014





Spectrum Information: Average of 12.165 to 12.165 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.4	29816	PASS
75	95	30	60	54.8	76216	PASS
95	95	100	100	100.0	139008	PASS
96	95	5	9	6.9	9628	PASS
173	174	0.00	2	0.5	620	PASS
174	95	50	100	86.5	120240	PASS
175	174	5	9	7.4	8842	PASS
176	174	95	101	101.0	121424	PASS
177	176	5	9	6.5	7888	PASS

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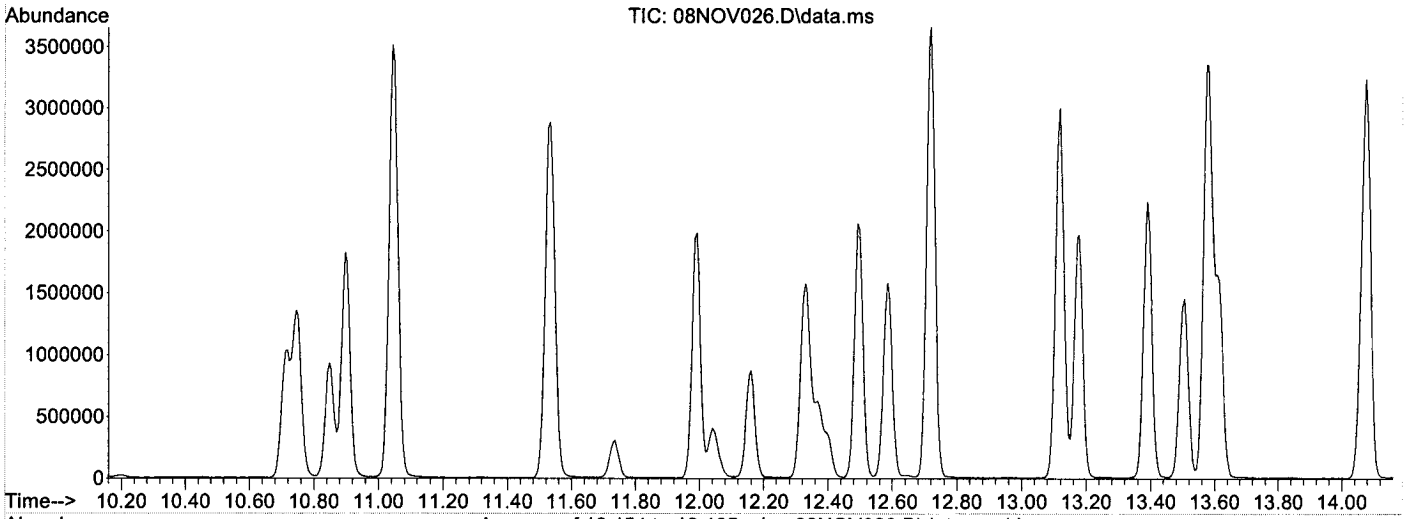
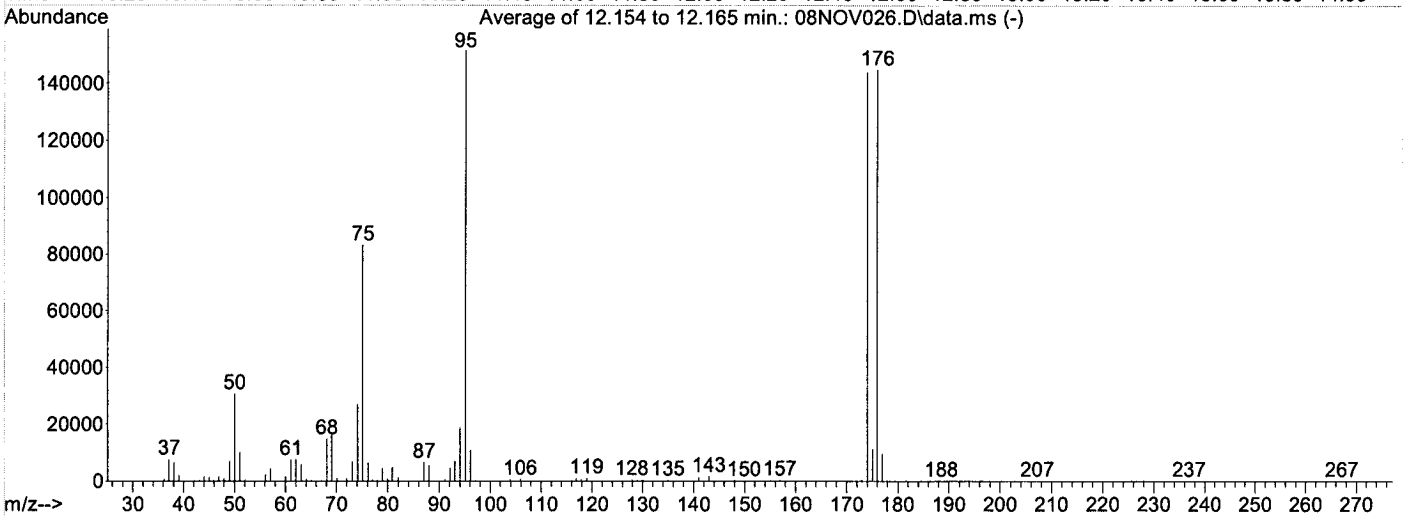
Data Path : W:\GCMS W DATA\2013\131108\
Data File : 08NOV026.D
Acq On : 8 Nov 2013 10:11 pm
Operator : 510
Sample : BFB/CCV V101713A/V110113A
Misc : V100113A
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\131022.M
Title : EPA 8260B/8260C
Last Update : Mon Nov 11 09:18:27 2013





Spectrum Information: Average of 12.154 to 12.165 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	30684	PASS
75	95	30	60	54.9	83321	PASS
95	95	100	100	100.0	151778	PASS
96	95	5	9	7.2	10916	PASS
173	174	0.00	2	0.4	588	PASS
174	95	50	100	94.9	144106	PASS
175	174	5	9	7.8	11280	PASS
176	174	95	101	100.7	145045	PASS
177	176	5	9	6.6	9640	PASS

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EPA METHOD 8260B

Run Logs

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Injection Log

Directory: W:\GCMS_W_DATA\2013\131022

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	22oct001.d	1.	BLANK	V100113A 'GC/MS W'	22 Oct 2013 10:36
2	2	22oct002.d	1.	BLANK	V100113A	22 Oct 2013 11:06
3	3	22oct003.d	1.	BLANK	V100113A	22 Oct 2013 11:36
4	4	22oct004.d	1.	BLANK	V100113A	22 Oct 2013 12:06
5	5	22oct005.d	1.	BFB/0.5PPB IC V101713A/V101...	V100113A	22 Oct 2013 12:36
6	6	22oct006.d	1.	1PPB IC V101713A/V101813A	V100113A	22 Oct 2013 13:06
7	7	22oct007.d	1.	10PPB IC V101713A/V101813A	V100113A	22 Oct 2013 13:36
8	8	22oct008.d	1.	20PPB IC V101713A/V101813A	V100113A	22 Oct 2013 14:05
9	9	22oct009.d	1.	50PPB IC V101713A/V101813A	V100113A	22 Oct 2013 14:35
10	10	22oct010.d	1.	100/60PPB IC V101713A/V101813A	V100113A	22 Oct 2013 15:05
11	11	22oct011.d	1.	200/80PPB IC V101713A/V101813A	V100113A	22 Oct 2013 15:35
12	12	22oct012.d	1.	ICV V101713B/V101813B	V100113A	22 Oct 2013 16:11
13	13	22oct013.d	1.	BLANK	V100113A	22 Oct 2013 16:41
14	14	22oct014.d	1.	BLANK	V100113A	22 Oct 2013 17:11
15	15	22oct015.d	1.	BLANK	V100113A	22 Oct 2013 17:41
16	16	22oct016.d	1.	MB	V100113A	22 Oct 2013 18:14
17	17	22oct017.d	1.	13-10-1267-1A 50000X pH<2.	V100113A	22 Oct 2013 18:44
18	18	22oct018.d	1.	13-10-1267-2A 50000X pH<2.	V100113A	22 Oct 2013 19:14
19	19	22oct019.d	1.	13-10-1267-3A 50000X pH<2.	V100113A	22 Oct 2013 19:44
20	20	22oct020.d	1.	13-10-1267-1A 1000000X PH<2;E	V100113A	22 Oct 2013 20:18
21	21	22oct021.d	1.	13-10-1267-2A 1000000X PH<2;E	V100113A	22 Oct 2013 20:48
22	22	22oct022.d	1.	13-10-1267-3A 1000000X PH<2;E	V100113A	22 Oct 2013 21:18
23	23	22oct023.d	1.	13-10-1267-2A 5000000X PH<2;E	V100113A	22 Oct 2013 21:48
24	24	22oct024.d	1.	13-10-1267-3A 5000000X PH<2;E	V100113A	22 Oct 2013 22:18
25	25	22oct025.d	1.	13-10-1585-4A 5ML pH<2.	V100113A	22 Oct 2013 22:48
26	26	22oct026.d	1.	MS 1585-4A V101713B/V101813B	V100113A	22 Oct 2013 23:18
27	27	22oct027.d	1.	MSD 1585-4A V101713B/V101813B	V100113A	22 Oct 2013 23:48
28	28	22oct028.d	1.	blank	V100113A	23 Oct 2013 00:18
29	29	22oct029.d	1.	BFB/CCV V101713A/V101813A	V100113A	23 Oct 2013 00:47
30	30	22oct030.d	1.	LCS V101713B/V101813B	V100113A	23 Oct 2013 01:17
31	31	22oct031.d	1.	BLANK	V100113A	23 Oct 2013 01:47
32	32	22oct032.d	1.	BLANK	V100113A	23 Oct 2013 02:17
33	33	22oct033.d	1.	MB	V100113A	23 Oct 2013 02:46
34	34	22oct034.d	1.	13-10-1585-1A 5ML pH<2.	V100113A	23 Oct 2013 03:16
35	35	22oct035.d	1.	13-10-1585-5A 5ML pH<2.	V100113A	23 Oct 2013 03:46
36	36	22oct036.d	1.	13-10-1585-6A 5ML pH<2.	V100113A	23 Oct 2013 04:15
37	37	22oct037.d	1.	13-10-1389-7A 5ML PH<2	V100113A	23 Oct 2013 04:45
38	38	22oct038.d	1.	13-10-1389-1A 5ML PH<2	V100113A	23 Oct 2013 05:15
39	39	22oct039.d	1.	13-10-1389-2A 5ML PH<2	V100113A	23 Oct 2013 05:44
40	40	22oct040.d	1.	13-10-1389-3A 5ML PH<2	V100113A	23 Oct 2013 06:14
41	41	22oct041.d	1.	13-10-1389-4A 5ML PH<2	V100113A	23 Oct 2013 06:44
42	42	22oct042.d	1.	13-10-1389-5A 5ML PH<2	V100113A	23 Oct 2013 07:13
43	43	22oct043.d	1.	13-10-1389-6A 5ML PH<2	V100113A	23 Oct 2013 07:43
44	44	22oct044.d	1.	13-10-1585-2A 5ML pH<2.	V100113A 5ML	23 Oct 2013 08:13
45	45	22oct045.d	1.	13-10-1585-3A 5ML pH<2.	V100113A 5ML	23 Oct 2013 08:42
46	46	22oct046.d	1.	MS 1585-3A V101713B/V101813B	V100113A	23 Oct 2013 09:12
47	47	22oct047.d	1.	MSD 1585-3A V101713B/V101813B	V100113A	23 Oct 2013 09:42
48	48	22oct048.d	1.	13-10-1267-2A 1250000X pH<2.	V100113A	23 Oct 2013 10:18
49	49	22oct049.d	1.	13-10-1267-3A 1250000X pH<2.	V100113A	23 Oct 2013 10:48
50	6	Copy of 22oct006.d				
			1.	1PPB IC V101713A/V101813A	V100113A	22 Oct 2013 13:06

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Injection Log

Directory: W:\GCMS_W_DATA\2013\131108

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	08nov001.d	1.	BLANK	V100113A 'GC/MS W'	8 Nov 2013 09:29
2	2	08nov002.d	1.	BFB/CCV V101713A/V110113A	V100113A	8 Nov 2013 10:06
3	3	08nov003.d	1.	LCS V101713B/V110113B	V100113A	8 Nov 2013 10:38
4	4	08nov004.d	1.	BLANK	V100113A	8 Nov 2013 11:13
5	5	08nov005.d	1.	BLANK	V100113A	8 Nov 2013 11:43
6	6	08nov006.d	1.	MB	V100113A	8 Nov 2013 12:13
7	7	08nov007.d	1.	13-11-0207-2B 5ML pH<2.	V100113A	8 Nov 2013 12:43
8	8	08nov008.d	1.	MS 0207-2B V101713B/V110113B	V100113A	8 Nov 2013 13:13
9	9	08nov009.d	1.	MSD 0207-2B V101713B/V110113B	V100113A	8 Nov 2013 13:43
10	10	08nov010.d	1.	BLANK	V100113A	8 Nov 2013 14:13
11	11	08nov011.d	1.	13-11-0273-1B 50X 100uL pH<2.	V100113A	8 Nov 2013 14:43
12	12	08nov012.d	1.	13-11-0273-8B 5X 1ML pH<2.	V100113A	8 Nov 2013 15:13
13	13	08nov013.d	1.	13-11-0273-2B 5ML pH<2.	V100113A	8 Nov 2013 15:43
14	14	08nov014.d	1.	MB TCLP 100X 11/07	V100113A	8 Nov 2013 16:13
15	15	08nov015.d	1.	13-11-0412-1A 100X 50uL TCLP	V100113A	8 Nov 2013 16:43
16	16	08nov016.d	1.	13-11-0045-6A 100X 50uL TCLP	V100113A	8 Nov 2013 17:13
17	17	08nov017.d	1.	13-10-2002-1A 100X 50uL TCLP	V100113A	8 Nov 2013 17:43
18	18	08nov018.d	1.	MS 0412-1A V101713B/V110113B	V100113A TCLP	8 Nov 2013 18:13
19	19	08nov019.d	1.	MSD 0412-1A V101713B/V110113B	V100113A TCLP	8 Nov 2013 18:42
20	20	08nov020.d	1.	13-10-2002-1A 1000X 5uL TCLP	V100113A	8 Nov 2013 19:12
21	21	08nov021.d	1.	BLANK	V100113A	8 Nov 2013 19:42
22	22	08nov022.d	1.	13-11-0459-1A 5ML pH<2.	V100113A	8 Nov 2013 20:12
23	23	08nov023.d	1.	13-11-0459-2A 5ML pH<2.	V100113A	8 Nov 2013 20:42
24	24	08nov024.d	1.	13-11-0459-3A 5ML pH<2.	V100113A	8 Nov 2013 21:12
25	25	08nov025.d	1.	BLANK	V100113A	8 Nov 2013 21:41
26	26	08nov026.d	1.	BFB/CCV V101713A/V110113A	V100113A	8 Nov 2013 22:11
27	27	08nov027.d	1.	LCS V101713B/V110113B	V100113A	8 Nov 2013 22:41
28	28	08nov028.d	1.	BLANK	V100113A	8 Nov 2013 23:11
29	29	08nov029.d	1.	BLANK	V100113A	8 Nov 2013 23:40
30	30	08nov030.d	1.	MB	V100113A	9 Nov 2013 00:10
31	31	08nov031.d	1.	13-11-0600-1A 5ML pH<2.	V100113A	9 Nov 2013 00:40
32	32	08nov032.d	1.	13-11-0459-4A 5ML pH<2.	V100113A	9 Nov 2013 01:10
33	33	08nov033.d	1.	MS 0459-4A V101713B/V110113B	V100113A	9 Nov 2013 01:40
34	34	08nov034.d	1.	MSD 0459-4A V101713B/V110113B	V100113A	9 Nov 2013 02:09
35	35	08nov035.d	1.	BLANK	V100113A	9 Nov 2013 02:39
36	36	08nov036.d	1.	BLANK	V100113A	9 Nov 2013 03:09
37	37	08nov037.d	1.	13-11-0459-5A 5ML pH<2.	V100113A	9 Nov 2013 03:39
38	38	08nov038.d	1.	13-11-0459-6A 5ML pH<2.	V100113A	9 Nov 2013 04:09
39	39	08nov039.d	1.	13-11-0459-7A 5ML pH<2.	V100113A	9 Nov 2013 04:39
40	40	08nov040.d	1.	13-11-0459-8A 5ML pH<2.	V100113A	9 Nov 2013 05:09
41	41	08nov041.d	1.	13-11-0459-9A 5ML pH<2.	V100113A	9 Nov 2013 05:39
42	42	08nov042.d	1.	13-11-0459-10A 5ML pH<2.	V100113A	9 Nov 2013 06:08
43	43	08nov043.d	1.	13-11-0600-2A 5ML pH<2.	V100113A	9 Nov 2013 06:38
44	44	08nov044.d	1.	13-11-0600-4A 5ML pH<2.	V100113A	9 Nov 2013 07:08
45	45	08nov045.d	1.	13-11-0600-5A 5ML pH<2.	V100113A	9 Nov 2013 07:38
46	46	08nov046.d	1.	13-11-0600-6A 5ML pH<2.	V100113A	9 Nov 2013 08:08
47	47	08nov047.d	1.	BLANK	V100113A	9 Nov 2013 08:38

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EPA METHOD 8260B

Standards Preparation Logs

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Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
7/9/13	V0909BB	TPPH 8260	TPPH LCS (Accu) Unleaded gasoline	VA-06-13-25	1ml	22,000ppm	20ml	1000ppm	MeOH	V06-23-19	1/9/14 ~~1/8/14~~ 7/15/13	670	
↓	V0709BC	8260 VPH	VPH Mixture	VA-06-14-10	1ml	500ppm	10ml	50ppm	MeOH	V06-23-19	1/9/14 ~~1/8/14~~ 7/15/13	670	
7/10/13	V071013A	8260	8260 IS/SURR 250PPM	VOA-06-09-05	2mL	12500PPM	100mL	250PPM	MeOH	V06-23-19	10/10/13	823	
7/12/13	V071213A	8260 CCV(G)	502.2 Calibration Mix #1	V-06-19-15	1.25ml	2000ppm	50ml	50ppm	MeOH	V06-23-19	7/21/13	670	
↓	V071213B	8260 LCS(G)	↓	V-06-23-10	↓	↓	↓	↓	↓	↓	↓	↓	
7/15/13	V071513A	8260	Cyclohexanone + TAA	V05-88-25	110µl	neat	10ml	10000ppm	MeOH	V06-23-~~19~~ 23 7/15/13	1/15/~~14~~ 14 7/15/13	131	
↓	↓	↓		V05-88-24	125µl	↓	↓	↓	↓	↓	1/15/14	131	
7/16/13	V071613A	8260 CCV(L)	Custom VOC Std.	V06-17-7	1ml	2000-2000ppm	40ml	50-500 ppm	MeOH	V06-23-23	8/18/13	131	
↓	↓	↓	Acrolein	V053013A	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	
			Vinyl Acetate	V041713B	1ml	2000ppm							
			2-CEVE	V06-22-8	1ml	2000ppm							
			Calif. oxyg. Mix#1	V06-22-~~6~~ 3 7/15/13	1ml	2000-2000ppm							
			8260B Calib. Mix#1	V06-21-23	1ml	2000ppm							
			VOA Calib. Mix #1	V06-21-20	0.4ml	5000ppm							
↓	↓	↓	cyclohexanone + TAA	V071513A	1ml	10,000ppm	↓	↓	↓	↓	↓	↓	
7/16/13	V071613B	8260 LCS(L)	VOA Custom Std	V06-18-6	1ml	2000-2000ppm	40ml	50-500 ppm	MeOH	V06-23-23	8/18/13	131	
↓	↓	↓	Acrolein	V071613C	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	
			Vinyl Acetate	V041713A	1ml	2000ppm							
			Volatile organic Compds	V06-20-5	1ml	2000ppm							
↓	↓	↓	Chloroprene	V06-16-8	1ml	2000ppm	↓	↓	↓	↓	↓	↓	

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Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/12/13	V081213A	8260	250 ppm IS/surr std.	V-06-09-08	2mL	12500ppm	100 ml.	250ppm	MeOH	V-06-25-13	11/12/13	316	
~~8/16/13~~	~~V081613A~~	~~8260~~	(CCV) ~~CFC custom STD 50ppm~~										GO 8/16/13
~~8/16/13~~	~~V081613B~~	~~8260~~	(LCS) ~~VOA custom STD 50ppm~~										GO 8/16/13
8/16/13	V081613A	8260	CCV(G) 502.2 Calib. Mix #1	V-06-22-15	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-25-13	8/25/13	610	
8/16/13	V081613B	8260	LCS(G) 502.2 Calib. Mix #1	V-06-23-16	↓	↓	↓	↓	↓	↓	↓	↓	
8/19/13	V081913A	8260	250ppm Cyclohexanone + TAA	V071513A	250µl	10000ppm	10ml	250ppm	MeOH	V06-25-13 ~~V06-[illegible]~~	1/15/14 ~~[illegible]~~	131	} [illegible] 8/30/13
8/23/13	V082313A	8260 CCV (G)	502.2 Calib Mix #1	V-06-22-16	1.25mL	2000ppm	50mL	50ppm	MeOH	V06-25-13 ~~V06-2[illegible]~~	9/[illegible]/13 ~~[illegible]/13~~	486	}
↓	V082313B	8260 LCS(G)	VOC high conc Mix #6	V-06-24-08	1mL	↓	40mL	↓	↓	↓	↓	↓	
8/23/13	608 08/20/13 V082013C ~~A~~	8260CCV	Freon 1,2,3	V06-02-04	50µl	1000ppm	1ml	50ppm	MeOH	V06-25-13	09/~~20~~24/13	608 08/20/13 608	
↓	↓	↓	1,2-Dichlorotrifluoro ethane	V06-07-20	↓	↓	↓	↓	↓	↓	↓	↓	
↓	V082313D	8260 LCS	2,2-Dichloro-1,1,1-tri fluoroethane	V06-16-25	250µl	2000ppm	1ml	50ppm	↓	↓	↓	↓	
↓	↓	↓	1,2-Dichloro trifluoro ethane	V06-07-25	↓	1000ppm	↓	↓	↓	↓	↓	↓	
8/23/13	V082313E	8260 LCS(G)	VOC-gases	V06-19-22	1ml	2000ppm	40ml	50ppm	MeOH	V06-25-19	9/1/13	131	
8/28/13	V082813A	8260	2 ~~10~~ppm IS/surr std.	V06-09-08 ~~08/30/13~~	2mL	12500 ppm	100ml	250ppm	MeOH	V06-25-19	11/28/13	626	
8/30/13	V083013A	CCV(G) 8260	502.2 Calib Mix #1	V06-22-17	1.25mL	2000ppm	50ml	50ppm	MeOH	V06-25-19	9/8/13 ~~11/28/13~~ 823	823 8/30	
8/30/13	V083013B	LCS(G) 8260	502.2 Calib Mix #1 ~~VOC Gases~~ 823 8/30	V06-27-01	↓	↓	↓	↓	↓	↓	↓	↓	
9/4/13	V090413A	SRL 524M IS/surr soil	Custom IS/SURR (soil)	V06-01-23	250µl	ppm 10-6250	10mL	ppm 0.2-125	MeOH	V06-26-04	12/4/13	486	
9/4/13	V090413B	8260(CCV)	Vinyl Acetate	V06-11-9	21.4µl	neat	10ml	2000ppm	MeOH	V06-26-04	3/4/14	131	
9/4/13	V090413C	8260L(CCV)	Custom VOC std	V06-17-9	1ml	2000-2000ppm	40ml	50-500 ppm	MeOH	V06-26-04	10/6/13	131	
↓	↓	↓	Acrolein	V080613A	0.4ml	10000 ppm	↓	↓	↓	↓	↓	↓	

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Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
9/27/13	V092713A	8260 CCV (gas)	502.2 Calib Mix #1	V06-26-19	1.25 ml	2000ppm	50ml	50ppm	MeOH	V-06-26-15	10/6/13	608	
↓	V092713B	8260 LCS (gas)	502.2 Calib Mix #1	V06-27-05	↓	↓	↓	↓	↓	↓	↓	↓	
9/28/13	V092813A	8260L(CCV)	Custom VOC Std.	V06-17-10	1ml	2000-2000ppm	40ml	50-500 ppm	MeOH	V06-26-15	10/28/13	131	
↓	↓	↓	Acrolein	V080613A	0.4ml	10000ppm	↓	↓	↓	↓	↓	↓	
			Vinyl Acetate	V090413B	1ml	2000ppm							
			2-CEVE	V06-22-11	1ml	2000ppm							
			Calif. Oxyg. Mix #1	V06-22-6	1ml	2000-2000ppm							
			8260B Calib. Mix #1	V06-22-1	1ml	2000ppm							
			VOA Calib. Mix #1	V06-15-15	0.4ml	5000ppm							
↓	↓	↓	TAA + Cyclohexanone	V071513A	1ml	10000ppm	↓	↓	↓	↓	↓	↓	
9/28/13	V092813B	8260L(LCS)	VOA Custom Std	V06-18-9	1ml	2000-2000ppm	40ml	50-500 ppm	MeOH	V06-26-04	10/28/13	131	
↓	↓	↓	Acrolein	V071613C	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	
			Vinyl Acetate	V080813E	1ml	2000ppm							
			Volatile organic Compds	V06-20-8	1ml	2000ppm							
			Chloroprene	V06-23-4	1ml	2000ppm							
			2-CEVE	V06-23-1	1ml	2000ppm							
			VOA Calib. Mix #1	V06-25-22	0.4ml	5000ppm							
			EPA 524.2 Rev.4 Mix	V06-24-19	1ml	2000ppm							
↓	↓	↓	TAA + Cyclohexanone	V071513A	1ml	10,000ppm	↓	↓	↓	↓	↓	↓	
10/1/13	V100113A	8260(IS/SS)	250ppm IS/SS	V06-21-2	2ml	12500ppm	100ml	250ppm	MeOH	V06-27-12	1/1/14	131	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
10/1/13	V100113B	8260	Acrolein (CCV)	V06-24-13	60µl	neat	5ml	10,000ppm	MeOH	V06-27-17	12/1/13	131	
10/2/13	V100213A	524.2	524 IS/Surr. mix	V-05-63-25	250ml	2000ppm	20ml	25ppm	MeOH	V06-27-17	01/02/14	608	
10/4/13	V100413A	8260	502.2 Calib. mix#1 CCV	V-06-26-20	1.25ml	2000ppm	50 ml.	50 ppm	MeOH	V-06-27-17	10/13/13	315	
↓	V100413B	8260	502.2 Calib. mix #1 LCS	V-06-27-06	↓	↓	↓	↓	↓	↓	↓	↓	
10/10/13	V101013A	8260CCV	Freon 1,23	V06-29-13	50ul	1000ppm	1ml	50ppm	MeOH	V-06-27-17	11/10/13	608	
↓	~~V101013B~~ 608 10/10/13	↓	1,2-Dichlorotrifluoro ethane	V06-07-20	↓	↓	↓	↓	↓	↓	↓	↓	
10/10/13	V101013B	8260 LCS	2,2-Dichloro-1,1,1-tri fluoroethane	V06-16-25	250ml	200ppm	1ml	↓	↓	↓	↓	↓	
↓	↓	↓	1,2-Dichlorotrifluoro ethane	V06-07-25	50ul	1000ppm	↓	↓	↓	↓	↓	↓	
10/11/13	V101113A	8260	502.2 Calib mix#1 CCV gas	V06-26-21	1.25ml	2000ppm	50ml	50 ppm	MeOH	V-06-29-17	10/20/13	510	
↓	V101113B	8260	502.2 Calib mix#1 LCS gas	V-06-27-07	↓	↓	↓	↓	↓	↓	↓	↓	
10/17/13	V101713A	8260L(CCV)	Custom VOC std.	V06-17-11	1ml	2000 – 20000ppm	40ml	50-500 ppm	MeOH	V06-29-17	11/17/13	131	
↓	↓	↓	Acrolein	V100113B	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	
			Vinyl Acetate	V090413B	1ml	2000ppm							
			2-CEVE	V-06-22-12	1ml	2000ppm							
			Calif. Oxyg. Mix#1	V-06-22-7	1ml	2000 – 2000ppm							
			8260B Calib. Mix#1	V-06-22-2	1ml	2000ppm							
			VOA Calib. Mix#1	V-06-15-15	0.4ml	5000ppm							
↓	↓	↓	TAA + Cyclohexanone	V071513A	1ml	10000ppm	↓	↓	↓	↓	↓	↓	
10/17/13	V101713B	8260L(LCS)	VOA custom std	V-06-18-10	1ml	2000 – 20000ppm	40ml	50-500 ppm	MeOH	V-06-29-17 ~~26-04~~ 11/10/17/13	11/17/13	131	
↓	↓	↓	Acrolein	V101713C	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	

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Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
10/17/13	V101713B	8260L(LCS)	Vinyl Acetate	V101713D	1ml	2000ppm	40ml	50-500 ppm	MeOH	V.06.29.17	11/17/13	131	
↓	↓	↓	Volatile organic Compds	V.06.20.9	1ml	2000ppm	↓	↓	↓	↓	↓	↓	
			Chloroprene	V.06.23.5	1ml	2000ppm							
			2-CEVE	V.06.29.7	1ml	2000ppm							
			VOA Calib. Mix #1	V.06.25.23	0.4ml	5000ppm							
			EPA 524.2 Rev.4 Mix	V.06.24.20	1ml	2000ppm							
↓	↓	↓	TAA + Cyclohexanone	V071513A	1ml	10,000ppm	↓	↓	↓	↓	↓	↓	
10/17/13	V101713C	8260	Acrolein (LCS)	V.06.24.13	60µl	neat	5ml	10,000ppm	MeOH	V.06.29.17	12/17/13	316	
10/17/13	V101713D	8260	Vinyl Acetate (LCS)	V.06.11.9	21.4µl	neat	10ml	2000ppm	MeOH	V.06.29.17	4/17/14	↓	
10/18/13	V101813A	8260	502.2 Calib mix #1 CCV gas	V-06-26-22	1.25mL	2000PPM	50mL	50PPM	MeOH	V-06-29-17	10/26/13	823	
↓	V101813B	8260	502.2 Calib mix #1 LCS gas	V-06-27-08	↓	↓	↓	↓	↓	↓	↓	↓	
10/19/13	V101913A	8260 (IS/SS)	250PPM IS/SS	V-06-21-03	2mL	12500PPM	100mL	250PPM	MeOH	V-06-29-17	1/19/14	823	
10/25/13	V102513A	8260 CCV (g)	502.2 Calib Mix #1	V-06-26-23	1.25mL	2000 ppm	50mL	50ppm	MeOH	V-06-29-24	11/03/13	486	
↓	V102513B	8260 LCS (g)	502.2 Calib mix #1	V-06-27-09	↓	↓	↓	↓	↓	↓	↓	↓	
11/01/13	V110113A	8260 CCV (g)	502.2 Calib Mix #1	V-06-26-24	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-30-24	11/10/13	608	
↓	V110113B	8260 LCS (g)	502.2 Calib Mix #1	V-06-27-10	↓	↓	↓	↓	↓	↓	↓	↓	
11/07/13	V110713A	IS/SUR. SRL-524M	Custom IS/SUR	V06-0203	1mL	ppm 10.6250	10mL	ppm 1.625	MeOH	V06-30-24	02/07/14	486	
11/08/13	V110813A	8260 CCV (g)	502.2 Calib. mix #1	V-06-26-25	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-30-24	11/17/13	316	
↓	V110813B	8260 LCS (g)	502.2 Calib. mix #1	V-06-31-21	↓	↓	↓	↓	↓	↓	↓	↓	
11/08/13	V1108BC	524.2	524 IS/surr. mix	V-05-63-25	250 ~~20~~ µl	2000ppm	20ml	25ppm	MeOH	V-06-30-24	02/08/14	608	

608 11/08/13

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CHEMICAL RECEIVING LOGBOOK

LINE NO.	CHEMICAL	SOURCE	CATALOG NO.	LOT NO.	EXP. DATE	AMOUNT RECEIVED	TYPE CONT.	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO
1	Methanol	Fisher	A453-1	135540	07/2015	1 L	Glass	07/17/12	163	07/18/12	697
2										07/20/12	697
3										07/26/12	697
4										07/26/12	826
5										07/27/12	70
6										07/30/12	697
7										08/04/12	697
8										08/10/12	697
9										08/14/12	697
10										08/14/12	697
11										8/17/12	316
12										08/17/12	697
13	Cyclohexanone	Accustandard	M-554-04	21.2071049	Jan 05/2013	1 ml.	Amp	07/17/12	70	Disposed 1/17/13	70
14	VOA Custom std.	Supelco	21551859	LB94004	7/13	1 ml.	Amp	07/19/12	70	07/27/12	70
15										08/21/12	70
16										09/14/12	70
17											70
18										Disposed 12/03/12	
19											
20											
21											
22											
23											
24	2-Methyl-2-butanol	Fluka	19954	BCBB9501V	07/2015	1 ml.	Glass	07/23/12	70	07/23/12	70
25	Cyclohexanone	Fluka	02482	BCBG1242V	07/2015	1 ml	Glass	07/23/12	70	07/23/12	70

Reviewed by: lw on 7/17/12

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Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	California Oxygenates Mix 1	Restek	30465	A089093	6/17	1 ml	Amp	11/16/12	131	1/24/13	131	
2										2/8/13	131	
3										3/7/13	131	
4										3/19/13	131	
5										4/18/13	131	
6										5/7/13	131	
7										5/30/13	131	
8										6/21/13	131	
9	Vinyl Acetate	ChemService	N-13746-10G	838900	9/30/17	10G	Amp	11/16/12	131	1/14/13	131	
10	Acrolein	ChemService	N-11030-1G	701100	8/31/13	1g	Amp	11/16/12	131	11/30/12	131	
11												
12	Methanol	Fisher	A453-1	117046	12/12/15	1L	glass	12/12/12	131	12/21/12	670	
13										12/22/12	697	
14										12/28/12	697	
15										1/04/13	430	
16										1/7/13	721	
17										1/10/13	849	
18										1/15/13	697	
19										01/17/13	841	
20										1/21/13	849	
21										1/22/13	721	
22										1/23/13	849	
23										01/24/13	697	
24	Methanol Production Grade	VWR	BDH 2018	08221102	12/15	1G	Plastic	12/13/12	791	12/13/12	791	
25	for un source cleaning								1	1/9/12	791	

COMMENTS:

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Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	502.2 Calibration Mix#1	Restek	30042	A091556	06/2019	1ml	Ampule	3/22/13	131	3/22/13	721	
2										3/29/13	670	
3										4/5/13	486	
4										4/12/13	608	
5										4/12/13	131	
6										4/19/13	721	
7										4/26/13	316	
8										5/3/13	670	
9										5/10/13	486	
10	~~VOA Calibration Mix#1~~	~~Restek~~	~~30006~~	~~A090791~~	~~12/2015~~	~~1ml~~	~~Ampule~~	~~3/22/13~~	~~131~~	5/17/13	608	
11												
12										Void	131	3/22/13
13										from line #11 to 14		
14										Void	131	3/22/13
15	VOA Calibration Mix#1	Restek	30006	A090791	12/2015	1ml	Ampule	3/22/13	131	9/28/13	131	
16										12/9/13	131	
17												
18												
19	California Oxygenates Mix#1	Restek	30465	A090673	09/2017	1ml	Ampule	3/22/13	131	11/12/13	131	
20										12/9/13	131	
21										1/9/14	131	
22												
23												
24	BTEX Standard	Restek	30213	A089584	08/2019	1ml	Ampule	3/22/13	131			
25												

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Freon 123	Accustandard	M-REF-X-05	21012001	12/1/20	1ml	Ampule	3/29/13	131	12/10/13	316	
2												
3												
4	Custom VOC standard	Accustandard	S-21698-R7	2130314 73	5/28/14	1ml	Ampule	3/29/13	131	5/7/13	131	
5										5/30/13	131	
6										6/21/13	131	
7										7/16/13	131	
8										8/8/13	131	
9										9/4/13	131	
10										9/28/13	131	
11										10/17/13	131	
12										11/12/13	131	
13										12/9/13	131	
14	Me OH	Fisher	A453-1	117046	4/16	1L	glass	4/1/13	131	4/3/13	834	
15												
16										4/5/13	697	
17										4/10/13	697	
18										4/12/13	697	
19										4/12/13	608	
20										4/16/13	697	
21										4/19/13	697	
22										4/19/13	697	
23										4/25/13	697	
24										4/25/13	697	
25										04/30/13	841	

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Crotonaldehyde	Accustandard	M-524-03	212011058-01	8/18/12	1ml	Ampule	4/8/13	131	4/8/13	131	
2	2,2-Dichloro-1,1,1-trifluoroethane	Absolute	71261	012510	01/25/15	1 ml.	Ampule	04/9/13	70			
3	2-Pentanone	Accystd	M-8015B/221-22	B7020174-4D	01/17/13	1ml.	Amp.	04/09/13	70	4/9/13	131	EXP. 02/06/14
4	VOA Custom standard	Supelco	21651B34	LB 996f2	10/14	1ml	Amp.	4/10/13	131	5/30/13	131	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	131	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	131	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/9/13	131	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/9/14	131	
14	2-Pentanone (LCS)	Spexcertiprep	S-2986	C112115016	04/10/15	1ml.	Amp	04/11/13	70	4/16/13	131	
15	2,2-Dichloro-1,1,1-trifluoroethane	Absolute	71261	012510	1/25/15	1ml	Amp.	4/17/13	131			
16	MeOH	Fisher	A453-1	117046	4/16	1L	Glass	4/22/13	131	4/30/13	697	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/2/13	697	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/9/13	697	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/8/13	626	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	05/08/13	697	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	05/10/13	697	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	05/15/13	697	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/20/13	316	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/20/13	697	

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Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Volatile Organic CMPDS - Gases	Accustandard	M-502B-10X-PAK	213031048	5/12/16	1ml	Ampule	5/16/13	131			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	Volatile organic CMPDS-Liquids	Accustandard	M502A-R-10X-PAK	212101379	11/2/15	1ml	Ampule	5/16/13	131	5/30/13	131	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	131	
5										7/16/13	131	
6										8/8/13	131	
7										9/4/13	131	
8										9/28/13	131	
9										10/17/13	131	
10										11/12/13	131	
11										12/9/13	131	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/9/14	131	
13	Methanol	Fisher	A453-1	125253	5/17/16	1L	glass	5/17/13	131	5/24/13	721	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/25/13	697	
15										5/30/13	697	
16										06/05/13	eH	
17										06/06/13	697	
18										06/12/13	697	
19										06/14/13	4xb	
20										06/15/13	697	
21										06/20/13	697	
22										06/25/13	791	
23										06/25/13	697	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/28/13	697	
25	Custom std. Quote# 103012-889 (8260 25/55)	ultra Scientific	CUS-9349	CK-1766	6/30/15	1ml	Ampule	6/4/13	131	09/20/13	823	

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Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Custom Std. Quote# 103012-889	Ultra Scientific	CUS-~~9349~~	CK-1766	6/30/15	1ml	Ampule	6/4/13	131	09/20/13	823	
2	(8260 IS/SS)		CUS-9349							10/1/13	131	
3										~~10/1/13~~ 10/19/13	823 ~~131~~	10/11/13
4										11/15/13	823	
5										11/20/13	849	
6										12/11/13	480	
7										12/28/13	626	
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20	VOA Calibration Mix #1	Restek	30006	A090791	12/15	1ml	Ampule	6/4/13	131	7/16/13	131	
21												
22												
23	8260B Calibration Mix #1	Restek	30633	A093741	2/16	1ml	Ampule	6/4/13	131	7/16/13	131	
24										8/4/13	131	
25										9/4/13	131	

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Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8260B Calibration Mix #1	Restek	~~A0~~ 30633	A093741	2/16	1ml	Ampule	6/4/13	131	9/28/13	131	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
3	California Oxyg. Mix #1	Restek	30465	A092255	12/17	1ml	Ampule	6/4/13	131	7/16/13	131	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
8	2CEVE	Restek	30265	A092589	12/17	1ml	Ampule	6/4/13	131	7/16/13	131	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
13	502.2 Calibration Mix #1	Restek	30042	A093159	9/19	1ml	Ampule	6/4/13	131	8/2/13	316	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/9/13	608	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/16/13	580	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/23/13	486	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/13	823	
18	Sea Sand	Fisher	S25-3	123310	6/18	2.5kg	plastic	6/5/13	131	06/06/13	697	
19	EPA 524 Rev. 4 Ketones Mix	Supelco	47428-U	LB84657	5/14	1ml	Ampule	6/14/13	131			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	2CEVE	Supelco	86-1206	LB94166	7/15	1ml	Ampule	6/14/13	131	empty	Ampule	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	131	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	2CEVE	Supelco	86-1206	LB94166	7/15	1ml	Ampule	6/14/13	131	9/28/13	131	
2	Chloroprene	Supelco	861145	LC00162	6/14	1ml	Ampule	6/14/13	131	8/8/13	131	
3										9/4/13	131	
4										9/28/13	131	
5										10/17/13	131	
6										11/12/13	131	
7	502.2 Calibration Mix #1	Restek	30042	A094181	11/19	1ml	Ampule	6/20/13	131	6/21/13	608	
8	(LCS)									6/28/13	316	
9										7/05/13	721	
10										7/12/13	670	
11										7/19/13	486	
12										7/26/13	608	
13										8/2/13	316	
14										8/9/13	608	
15										8/9/13	608	
16										8/16/13	670	
17	MeOH	Fisher	A453-1	125253	6/21/15	1L	glass	6/21/13	131	6/28/13 8/23 6/28/13	823	
18										07/02/13	697	
19										7/5/13	721	
20										7/10/13	697	
21										7/11/13	867	
22										7/11/13	697	
23										7/12/13	670	
24										7/13/13	697	
25										7/15/13	670	

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	MeOH	Fisher	A453-1	125253	6/21/15	1L	glass	6/21/13	131	~~6/28/13~~ 6/28/13	6/28/13 823	823
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	697	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/17/13	697	
4	Sodium Bisulfate	Fisher	S240-3	126178	6/28/16	3kg	plastic	6/28/13	131	7/2/13	834	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/19/13	607	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	09/11/13	607	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/03/13	607	
8	Volatile Organics High Conc. Mix #6	ChemService	U-VOHC6M5-1ml	1657100	6/30/14	1ml	Ampule	7/1/13	131	8/23/13	480	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓			
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	Acrolein	chemservice	N-11030-1G	1506200	5/30/14	1ml	Ampule	7/1/13	131	10/1/13	131	
14	Cyclohexanone	chemservice	N-11531-10G	1365600	1/31/18	10g	glass	7/1/13	131			
15	tert-Amyl Alcohol (TAA)	chemservice	N-13518-10G	1593900	5/31/19	10g	glass	7/1/13	131			
16	Sea Sand	Fisher	S25-3	123310	7/2/16	3kg	plastic	7/2/13	131	07/02/13	697	
17	EPA 524.2 Rev. 4 Mix	Supelco	47427-U	LC01101	9/14	1ml	Ampule	7/11/13	131	8/8/13	131	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
22	MeOH	Fisher	A453-1	125253	7/12/15	1L	glass	7/12/13	131	07/18/13	697	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	486	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	697	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	697	

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Me OH	Fisher	A453-1	125253	7/12/15	1L	glass	7/12/13	131	07/19/13	697	
2										07/24/13	697	
3										07/24/13	791	
4										07/25/13	791	
5										07/26/13	697	
6										7/27/13	670	
7										7/31/13	697	
8												
9	Sea Sand	Fisher	S25-3	123310A	7/16/16	3Kg	plastic	7/16/13	131	07/17/13	697	
10	Me OH	Fisher	A453-1	125253	7/26/15	1L	Glass	7/26/13	131	08/02/13	626	
11										08/05/13	697	
12										08/08/13	876	
13										8/12/13	316	
14										08/12/13	697	
15										08/15/13	791	
16										08/16/13	697	
17										08/17/13	697	
18										08/21/13	697	
19										08/23/13	626	
20										8/26/13	131	
21										8/29/13	697	
22	VOA Calibration Mix #1 (LCS)	Restek	30006	A090981	12/15	1ml	Ampule	7/29/13	131	8/8/13	131	
23										10/17/13	131	
24										~~11/12/13~~ 1/9/14	~~131~~ 131	12/9/13
25												

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	VOA Calibration Mix#1 (LCS)	Restek	30006	A090981	12/15	1ml	Ampule	7/29/13	131			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	Sea sand.	Fisher	S25-3	123310A	8/16	3kg	plastic	8/16/13	131	08/16/13	697	
4	MeOH	Fisher	A453-1	125253	8/20/15	1L	Glass	8/20/13	697	09/04/13	486	
5										09/04/13	697	
6										09/06/13	697	
7										↓	↓	
8										09/07/13	791	
9										09/12/13	697	
10										09/13/13	823	
11										09/17/13	697	
12										09/20/13	697	
13										↓	↓	
14												
15										09/20/13	823	
16	502.2 Calibration Mix#1 (CCV)	Restek	30042	A097263	4/20	1ml	Ampule	8/26/13	131	9/6/13	316	
17										9/13/13	486	
18										9/20/13	570	
19										9/27/13	608	
20										10/04/13	316	
21										10/11/13	510	
22										10/18/13	823	
23										10/25/13	486	
24										11/01/13	608	
25										11/8/13	316	

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	502.2 Calibration Mix#1 (CS)	~~Restek~~ ~~30042~~	~~30042~~ ~~A095831~~	A095831	2/20	1ml	Ampule	8/26/13	131	8/30/13	823	
2		Restek	30042							9/6/13	316	
3										9/13/13	486	
4										9/20/13	570	
5										9/27/13	608	
6										10/04/13	316	
7										10/11/13	510	
8										10/18/13	823	
9										10/25/13	486	
10										11/01/13	608	
11	Sea Sand	Fisher	S25-3	123310A	9/16	3kg	plastic	9/11/13	131	09/11/13	697	
12	Chlorotrifluoroethene	Spex Certiprep.	S-4840	C113081401A	9/14	1ml	Ampule	9/17/13	131	~~09~~ 9/18/13	131	
13	2-Chloro-1,1,1-trifluoroethane	SPEX Certiprep	S-958	C111020901B	9/16	1ml	Ampule	9/17/13	131	9/18/13		
14	2,2-Dichloro-1,1,1-trifluoroethane	SPEX Certiprep	S-1476	C110082300B	9/16	1ml	Ampule	9/17/13	131	9/18/13		
15	MeOH	Fisher	A453-1	125253	9/18/15	1L	Glass	9/18/13	697	09/25/13	697	
16					9/18/15					09/26/13	697	
17										9/27/13	131	
18										9/30/13	697	
19										10/03/13	697	
20												
21										10/05/13	697	
22										10/08/13	697	
23												
24										10/09/13	697	
25										10/10/13	697	

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LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Volatile Organic Compds Liquids	Accustandard	M-SWA-R10X	21307090	7/10/16	1ml	Ampule	10/8/13	131			
2												
3												
4												
5												
6												
7	2-CEVE	Supelco	86-1206	LB94166	7/15	1ml	Ampule	10/8/13	131	10/17/13	131	
8										11/12/13	131	
9										12/9/13	131	
10										1/9/14	131	
11												
12												
13	Freon 123	Supelco	CRM4841.2	LC01303	6/16	1ml	Ampule	10/8/13	131	10/10/13	RP	
14												
15												
16	Methanol	Fisher	A453-1	125253	10/15	1L	Glass	10/10/13	131	10/10/13	697	
17										10/11/13	131	
18										10/14/13	697	
19												
20										10/17/13	697	
21										10/19/13	823	
22										10/21/13	697	
23										10/22/13	697	
24										10/23/13	697	
25												

COMMENTS: