The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

Intercontinental Terminals

CARDILCL: Deer Park Release

SGS Job Number: TD39499

Sampling Dates: 05/21/19 - 05/22/19

Report to:

Cardno
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ATTN: Cheryl Hennessy

Total number of pages in report: **151**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

John Watson
Technical Director

Client Service contact: Erika Garcia 713-271-4700

Certifications: TX (T104704220-19-32) AR (14-016-0) AZ (AZ0769) FL (E87628)
KS (E-10366) LA (85695/04004) NJ (TX010) OK (2018-129) VA (10171)

90016253

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SGS North America Inc.

Sample Summary

Intercontinental Terminals

Job No: TD39499

CARDILCL: Deer Park Release

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD39499-1	05/21/19	11:30		05/22/19	AQ	Water	WW-20190521-002-DAY19
TD39499-1A	05/21/19	11:30		05/22/19	AQ	Water	WW-20190521-002-DAY19
TD39499-2	05/22/19	11:30		05/22/19	AQ	Water	WW-20190522-002-DAY20

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Intercontinental Terminals	**Job No**	TD39499
Site:	CARDILCL: Deer Park Release	**Report Date**	5/28/2019 2:24:15 PM

2 Samples were collected between 05/21/2019 and 05/22/2019 and received intact at SGS North America Inc (SGS) Houston on 05/22/2019 and properly preserved in 1 cooler at 2.6 Deg C. The samples received an SGS job number of TD39499. A listing of the Laboratory Sample ID, Client Sample ID, and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** VZ6291

- All samples were analyzed within the recommended method holding time.
- Samples TD39541-2MS, TD39541-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- TD39499-1: Sample composited prior to analysis per client request.

General Chemistry By Method ASTM D6503-99

Matrix: AQ **Batch ID:** MB18096

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- TD39499-2 for Enterococci: Insufficient sample volume for duplicate analysis.

General Chemistry By Method SM 3500CR B-2011

Matrix: AQ **Batch ID:** GN98665

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples TD39499-2DUP, TD39499-2MS were used as the QC samples for Chromium, Hexavalent.

General Chemistry By Method SM 5210B-2011

Matrix: AQ **Batch ID:** GP53224

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample TD39501-1DUP was used as the QC sample for Carbonaceous Bod, 5 Day.

SGS certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS and as stated on the COC. SGS certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Quality Manual except as noted above. This report is to be used in its entirety. SGS is not responsible for any assumptions of data quality if partial data packages are used.

Summary of Hits

Job Number: TD39499
Account: Intercontinental Terminals
Project: CARDILCL: Deer Park Release
Collected: 05/21/19 thru 05/22/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD39499-1	**WW-20190521-002-DAY19**					
No hits reported in this sample.						
TD39499-1A	**WW-20190521-002-DAY19**					
No hits reported in this sample.						
TD39499-2	**WW-20190522-002-DAY20**					
Enterococci [a]		87.1	1		mpn/100ml	ASTM D6503-99

(a) Insufficient sample volume for duplicate analysis.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	WW-20190521-002-DAY19		
Lab Sample ID:	TD39499-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/22/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CARDILCL: Deer Park Release		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Z75936.D	1	05/24/19 10:27	FT	n/a	n/a	VZ6291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
106-89-8	Epichlorohydrin	ND	10	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		72-122%
17060-07-0	1,2-Dichloroethane-D4	98%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	100%		72-126%

(a) Sample composited prior to analysis per client request.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WW-20190521-002-DAY19		
Lab Sample ID:	TD39499-1A	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/22/19
		Percent Solids:	n/a
Project:	CARDILCL: Deer Park Release		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Carbonaceous Bod, 5 Day	< 2.0	2.0	mg/l	1	05/23/19 09:36	PK	SM 5210B-2011

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WW-20190522-002-DAY20		
Lab Sample ID:	TD39499-2	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/22/19
		Percent Solids:	n/a
Project:	CARDILCL: Deer Park Release		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	05/22/19 17:21	PA	SM 3500CR B-2011
Enterococci [a]	87.1	1	mpn/100ml	1	05/22/19 15:51	MS	ASTM D6503-99

(a) Insufficient sample volume for duplicate analysis.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS

CHAIN OF CUSTODY

10165 Harwin Dr. Ste 150 Houston, TX 77036
TEL 713-271-4700 FAX 713-271-4770
www.accutest.com

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FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: TD39499

Client / Reporting Information

Company Name: InterContinental Terminal Co
Street Address: 1943 Battleground Rd.
City / State / Zip: Deer Park TX 77536
Project Contact / E-mail: Cheryl Hennel Cheryl.Randle@cardno.com
Phone # / Fax #:
Sampler(s) Name(s): C. Pilla
Phone #:

Project Information

Project Name: Deer Park Fire
Street:
City / State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAcOH	HNO3	H2SO4	NONE	DI Water	MeOH	TSP	NaHSO4	ENCORE	OTHER	Epichlorohydrin by 8260 ***	Enterococci	Hexavalent Chromium	CBOD	LAB USE ONLY
1	WW-20190521-002-Day19	5/21/19	1130	RN,CP	WW	5	X												X			X	
2	WW-20190522-002-Day20	5/22/19	1130	RN,CP	WW	2												X		X	X		

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank

Turnaround Time (Business days):
- ☐ Standard
- ☐ 5 Day *RUSH*
- ☐ 4 Day *RUSH*
- ☐ 3 Day *RUSH*
- ☒ 2 Day *RUSH*
- ☐ 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information:
- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☒ FULT1 (Level 3+4)
- ☐ REDT1 (Level 3+4)
- ☐ Commercial "C"
- ☐ TRRP
- ☒ EDD Format
- ☐ Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions: *** Composite vials for V8260EPICH ***

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	5/22/19 1240	1 Dennis Melder	2 Dennis Melder	5-22-19 1400	2 [signature] 5-22-19 1400
3		3	4		4
5		5			

Custody Seal #: ☐ Intact ☐ Not intact
Preserved where applicable ☐
On Ice ☐
Cooler Temp:

https://www.sgs.com/en/terms-and-conditions

5.1

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TD39499: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: TD39499 **Client:** INTERCONTINENTAL TERMINAL CO **Project:** DEER PARK FIRE

Date / Time Received: 5/22/2019 **Delivery Method:** **Airbill #'s:**

No. Coolers: 1 **Therm ID:** IR9; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (2.6/2.6);

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	

Quality Control Preservation	Y	or N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐	☐	☑	☐	☐
2. Trip Blank listed on COC:	☐	☐	☑		
3. Samples preserved properly:	☑	☐			
4. VOCs headspace free:	☐	☐	☑		

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

5.1

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TD39499: Chain of Custody
Page 2 of 3

Sample Receipt Log

Job #: TD39499 **Date / Time Received:** 5/22/2019 2:00:00 PM **Initials:** SJ

Client: INTERCONTINENTAL TERMINAL CO

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD39499-1	1000ml	1	3B	N/P	Note #2 - Preservative check not applicable.	IR9	2.6	0	2.6
1	TD39499-1	40ml	2	VR 241	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	2.6	0	2.6
1	TD39499-1	40ml	3	VR 241	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	2.6	0	2.6
1	TD39499-1	40ml	4	VR 241	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	2.6	0	2.6
1	TD39499-1	40ml	5	VR 241	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	2.6	0	2.6
	TD39499-2	250ml	1	3B	N/P	Note #2 - Preservative check not applicable.				
	TD39499-2	Spec Cup	2	MICRO	Na2S2O3	Note #2 - Preservative check not applicable.				

TD39499: Chain of Custody
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MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6291-MB	Z75933.D	1	05/24/19	FT	n/a	n/a	VZ6291

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39499-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-89-8	Epichlorohydrin	ND	10	2.2	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	72-122%
17060-07-0	1,2-Dichloroethane-D4	99%	68-124%
2037-26-5	Toluene-D8	103%	80-119%
460-00-4	4-Bromofluorobenzene	101%	72-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6291-BS	Z75931.D	1	05/24/19	FT	n/a	n/a	VZ6291

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39499-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-89-8	Epichlorohydrin	125	141	113	48-134

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	72-122%
17060-07-0	1,2-Dichloroethane-D4	101%	68-124%
2037-26-5	Toluene-D8	102%	80-119%
460-00-4	4-Bromofluorobenzene	100%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39541-2MS	Z75938.D	1	05/24/19	FT	n/a	n/a	VZ6291
TD39541-2MSD	Z75939.D	1	05/24/19	FT	n/a	n/a	VZ6291
TD39541-2	Z75937.D	1	05/24/19	FT	n/a	n/a	VZ6291

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39499-1

CAS No.	Compound	TD39541-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-89-8	Epichlorohydrin	10	U	125	75.3	60	125	67.4	54	11	48-134/29

CAS No.	Surrogate Recoveries	MS	MSD	TD39541-2	Limits
1868-53-7	Dibromofluoromethane	103%	102%	103%	72-122%
17060-07-0	1,2-Dichloroethane-D4	97%	95%	101%	68-124%
2037-26-5	Toluene-D8	103%	103%	104%	80-119%
460-00-4	4-Bromofluorobenzene	100%	101%	100%	72-126%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6285-BFB
Lab File ID: Z75821.D
Instrument ID: GCMSZ
Injection Date: 05/20/19
Injection Time: 12:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9661	15.9		Pass
75	30.0 - 60.0% of mass 95	28024	46.2		Pass
95	Base peak, 100% relative abundance	60597	100.0		Pass
96	5.0 - 9.0% of mass 95	4376	7.22		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	54336	89.7		Pass
175	5.0 - 9.0% of mass 174	4177	6.89	(7.69) [a]	Pass
176	95.0 - 101.0% of mass 174	53299	88.0	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3738	6.17	(7.01) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VZ6285-IC6285	Z75822.D	05/20/19	13:13	00:25	Initial cal 0.5
VZ6285-IC6285	Z75823.D	05/20/19	13:38	00:50	Initial cal 1
VZ6285-IC6285	Z75824.D	05/20/19	14:02	01:14	Initial cal 2
VZ6285-IC6285	Z75825.D	05/20/19	14:27	01:39	Initial cal 5
VZ6285-IC6285	Z75826.D	05/20/19	14:51	02:03	Initial cal 20
VZ6285-ICC6285	Z75827.D	05/20/19	15:16	02:28	Initial cal 40
VZ6285-IC6285	Z75828.D	05/20/19	15:41	02:53	Initial cal 70
VZ6285-IC6285	Z75829.D	05/20/19	16:05	03:17	Initial cal 100
VZ6285-IC6285	Z75830.D	05/20/19	16:30	03:42	Initial cal 200
VZ6285-ICV6285	Z75833.D	05/20/19	17:44	04:56	Initial cal verification 40

Instrument Performance Check (BFB)

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6291-BFB
Lab File ID: Z75929.D
Instrument ID: GCMSZ
Injection Date: 05/24/19
Injection Time: 07:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	6304	15.3		Pass
75	30.0 - 60.0% of mass 95	18062	43.8		Pass
95	Base peak, 100% relative abundance	41216	100.0		Pass
96	5.0 - 9.0% of mass 95	2566	6.23		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	34787	84.4		Pass
175	5.0 - 9.0% of mass 174	2799	6.79	(8.05) [a]	Pass
176	95.0 - 101.0% of mass 174	34040	82.6	(97.9) [a]	Pass
177	5.0 - 9.0% of mass 176	2538	6.16	(7.46) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VZ6291-CC6285	Z75930.D	05/24/19	07:59	00:24	Continuing cal 20
VZ6291-BS	Z75931.D	05/24/19	08:24	00:49	Blank Spike
VZ6291-MB	Z75933.D	05/24/19	09:13	01:38	Method Blank
ZZZZZZ	Z75934.D	05/24/19	09:37	02:02	(unrelated sample)
ZZZZZZ	Z75935.D	05/24/19	10:02	02:27	(unrelated sample)
TD39499-1	Z75936.D	05/24/19	10:27	02:52	WW-20190521-002-DAY19
TD39541-2	Z75937.D	05/24/19	10:52	03:17	(used for QC only; not part of job TD39499)
TD39541-2MS	Z75938.D	05/24/19	11:16	03:41	Matrix Spike
TD39541-2MSD	Z75939.D	05/24/19	11:41	04:06	Matrix Spike Duplicate
ZZZZZZ	Z75940.D	05/24/19	12:05	04:30	(unrelated sample)
ZZZZZZ	Z75941.D	05/24/19	12:31	04:56	(unrelated sample)
ZZZZZZ	Z75942.D	05/24/19	12:56	05:21	(unrelated sample)
ZZZZZZ	Z75943.D	05/24/19	13:20	05:45	(unrelated sample)
ZZZZZZ	Z75944.D	05/24/19	13:45	06:10	(unrelated sample)
ZZZZZZ	Z75945.D	05/24/19	14:09	06:34	(unrelated sample)
ZZZZZZ	Z75946.D	05/24/19	14:33	06:58	(unrelated sample)
ZZZZZZ	Z75947.D	05/24/19	14:58	07:23	(unrelated sample)
ZZZZZZ	Z75948.D	05/24/19	15:22	07:47	(unrelated sample)
ZZZZZZ	Z75949.D	05/24/19	15:47	08:12	(unrelated sample)
ZZZZZZ	Z75950.D	05/24/19	16:12	08:37	(unrelated sample)
ZZZZZZ	Z75951.D	05/24/19	16:37	09:02	(unrelated sample)
ZZZZZZ	Z75952.D	05/24/19	17:01	09:26	(unrelated sample)
ZZZZZZ	Z75953.D	05/24/19	17:26	09:51	(unrelated sample)
ZZZZZZ	Z75954.D	05/24/19	17:51	10:16	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample:	VZ6291-BFB	**Injection Date:**	05/24/19
Lab File ID:	Z75929.D	**Injection Time:**	07:35
Instrument ID:	GCMSZ		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	Z75955.D	05/24/19	18:16	10:41	(unrelated sample)

Internal Standard Area Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Check Std:	VZ6291-CC6285	**Injection Date:**	05/24/19
Lab File ID:	Z75930.D	**Injection Time:**	07:59
Instrument ID:	GCMSZ	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	510846	3.45	763015	4.15	686189	7.40	360653	9.74
Upper Limit [a]	1021692	3.95	1526030	4.65	1372378	7.90	721306	10.24
Lower Limit [b]	255423	2.95	381508	3.65	343095	6.90	180327	9.24

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VZ6291-BS	448484	3.45	659391	4.15	593401	7.40	316361	9.74
VZ6291-MB	456220	3.45	674137	4.15	606636	7.40	317417	9.74
ZZZZZZ	459682	3.45	678440	4.15	625066	7.40	330592	9.74
ZZZZZZ	484558	3.45	716951	4.15	647219	7.40	338228	9.74
TD39499-1 [c]	470771	3.45	696268	4.15	621681	7.40	323395	9.74
TD39541-2	450396	3.45	673842	4.15	608198	7.40	311356	9.74
TD39541-2MS	508771	3.45	751967	4.15	679584	7.40	358613	9.74
TD39541-2MSD	530337	3.45	786306	4.15	704453	7.40	366819	9.74
ZZZZZZ	475449	3.45	704931	4.15	632972	7.40	328351	9.74
ZZZZZZ	466794	3.45	684848	4.15	624728	7.40	327451	9.74
ZZZZZZ	596717	3.45	870831	4.15	780186	7.40	401857	9.74
ZZZZZZ	473731	3.45	700615	4.15	625522	7.40	324768	9.74
ZZZZZZ	467876	3.45	693580	4.15	617834	7.40	318288	9.74
ZZZZZZ	475043	3.45	705279	4.15	628352	7.40	323262	9.74
ZZZZZZ	564218	3.45	842263	4.15	738085	7.40	375987	9.74
ZZZZZZ	481088	3.45	722963	4.15	644067	7.40	330059	9.74
ZZZZZZ	456417	3.45	683594	4.15	612405	7.40	319515	9.74
ZZZZZZ	517570	3.45	765774	4.15	678666	7.40	352640	9.74
ZZZZZZ	454389	3.45	680240	4.15	608126	7.40	316408	9.74
ZZZZZZ	460491	3.45	683546	4.15	616090	7.40	316811	9.74
ZZZZZZ	445445	3.45	670615	4.15	599455	7.40	307743	9.74
ZZZZZZ	431119	3.45	643842	4.15	578845	7.40	294958	9.74
ZZZZZZ	440491	3.45	661916	4.15	590891	7.40	299042	9.74
ZZZZZZ	451932	3.45	678514	4.15	614628	7.40	305675	9.74

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Sample composited prior to analysis per client request.

Surrogate Recovery Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
TD39499-1	Z75936.D	101	98	104	100
TD39541-2MS	Z75938.D	103	97	103	100
TD39541-2MSD	Z75939.D	102	95	103	101
VZ6291-BS	Z75931.D	102	101	102	100
VZ6291-MB	Z75933.D	102	99	103	101

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-122%
S2 = 1,2-Dichloroethane-D4	68-124%
S3 = Toluene-D8	80-119%
S4 = 4-Bromofluorobenzene	72-126%

Initial Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release
Sample: VZ6285-ICC6285
Lab FileID: Z75827.D

```
                    Response Factor Report  MS_Z

Method       : C:\msdchem\1\METHODS\VZ6285.m (RTE Integrator)
Title        : SW846 8260C and EPA 624
Last Update  : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Calibration Files
40  =Z75827.D    20  =Z75826.D    1   =Z75823.D    100 =Z75829.D
200 =Z75830.D    5   =Z75825.D    2   =Z75824.D    0.5 =Z75822.D
70  =Z75828.D        =

 Compound
           40    20    1     100   200   5     2     0.5   70      Avg    %RSD
-------------------------------------------------------------------------------

1) I   Pentafluorobenzene    ----------------ISTD---------------------
2)  Dichlorodifluoromethane
          0.562 0.559 0.900 0.587 0.493 0.533 0.712 0.695 0.626   0.630   19.71
3)  Chloromethane
          0.569 0.708 1.868 0.651 0.599 0.734 1.093 2.699 0.674   1.066   69.08
           ---- Quadratic regression ----  Coefficient =  0.9964
             Response Ratio = 0.02078 + 0.63526 *A + -0.00863 *A^2

4)  Vinyl Chloride
          0.414 0.516 0.830 0.481 0.453 0.474 0.573 0.746 0.514   0.556   25.27
           ---- Quadratic regression ----  Coefficient =  0.9961
             Response Ratio = 0.00362 + 0.48667 *A + -0.00767 *A^2

5)  1,3-Butadiene
          0.295 0.348 0.473 0.341 0.301 0.333 0.454 0.438 0.351   0.370   18.02
6)  Ethylene Oxide
          0.075 0.078 0.130 0.062 0.053 0.088 0.109 0.079 0.067   0.083   29.14
           ---- Quadratic regression ----  Coefficient =  0.9971
             Response Ratio = 0.02794 + 0.07659 *A + -0.00012 *A^2

7)  Bromomethane
          0.295 0.325 0.596 0.239       0.376 0.468 0.521 0.278   0.387   32.97
           ---- Quadratic regression ----  Coefficient =  0.9981
             Response Ratio = 0.00323 + 0.34102 *A + -0.05090 *A^2

8)  Chloroethane
          0.238 0.275 0.471 0.187 0.151 0.315 0.383 0.340 0.220   0.287   35.37
           ---- Quadratic regression ----  Coefficient =  0.9948
             Response Ratio = 0.00274 + 0.25520 *A + -0.02709 *A^2

9)  Vinyl Bromide
          0.307 0.310 0.437 0.285 0.239 0.298 0.362 0.377 0.293   0.323   18.32
10)  Trichlorofluoromethane
          0.571 0.600 1.010 0.544 0.430 0.632 0.855 0.921 0.574   0.682   28.88
           ---- Quadratic regression ----  Coefficient =  0.9988
             Response Ratio = 0.00479 + 0.62860 *A + -0.04920 *A^2

11)  Ethyl Alcohol
          0.025 0.026       0.022 0.018 0.030 0.031       0.024   0.025   18.50
12)  Ethyl Ether
          0.294 0.305 0.436 0.273 0.240 0.340 0.358       0.293   0.317   19.03
13)  Acrolein
          0.082 0.082 0.111 0.076 0.067 0.075 0.090 0.089 0.082   0.084   14.76
14)  1,1-Dichloroethene
```

```
            0.478 0.484 0.722 0.457 0.423 0.517 0.605 0.668 0.481   0.537   19.21
15)  Freon 113
            0.338 0.320 0.396 0.324 0.267 0.327 0.418 0.402 0.344   0.349   13.84
16)  Acetone
            0.113 0.118       0.107 0.098 0.128 0.168       0.112   0.121   18.88
17)  Propylene Oxide
            0.083 0.076 0.038 0.083 0.076 0.066 0.033       0.084   0.067   30.30
             ---- Quadratic regression ----  Coefficient =  0.9999
               Response Ratio = -0.00266 + 0.09041 *A + -0.00348 *A^2

18)  Isopropyl Alcohol
            0.026 0.026 0.035 0.025 0.024 0.025 0.030 0.036 0.027   0.028   16.32
19)  Iodomethane
            0.674 0.695 1.011 0.648 0.637 0.691 0.848 0.989 0.682   0.764   19.26
20)  Methyl acetate
            0.291 0.290       0.261 0.241 0.307 0.401       0.272   0.295   17.55
21)  Carbon Disulfide
            0.887 0.858 0.958 0.890 0.861 0.728 0.889       0.928   0.875    7.77
22)  Allyl Chloride
            0.195 0.190 0.192 0.191 0.191 0.162 0.197 0.113 0.202   0.181   15.49
23)  Acetonitrile
            0.034 0.033 0.038 0.031 0.028 0.030 0.035       0.032   0.033    9.85
24)  Methylene Chloride
            0.415 0.420       0.381 0.363 0.453 0.613       0.395   0.434   19.36
25)  Tert Butyl Alcohol
            0.063 0.066 0.094 0.063 0.062 0.062 0.076 0.086 0.065   0.071   16.79
26)  trans-1,2-Dichloroethene
            0.489 0.538 0.799 0.487 0.488 0.528 0.646 0.747 0.528   0.583   20.35
             ---- Quadratic regression ----  Coefficient =  0.9989
               Response Ratio = 0.00367 + 0.51238 *A + -0.00679 *A^2

27)  Acrylonitrile
            0.146 0.163 0.221 0.142 0.145 0.142 0.194 0.177 0.158   0.165   16.64
28)  Hexane
            0.541 0.511 0.656 0.536 0.441 0.491 0.667 0.631 0.549   0.558   13.88
29)  Methyl Tert Butyl Ether
            0.953 0.992 1.307 0.955 0.946 0.886 1.105 1.303 1.040   1.054   14.73
30)  1,1-Dichloroethane
            0.706 0.737 1.030 0.698 0.684 0.718 0.890 1.013 0.719   0.799   17.49
31)  Vinyl acetate
            1.059 1.102 1.389 0.997 0.881 1.033 1.216 1.333 1.049   1.118   14.69
32)  Allyl Alcohol
                                                                    0.000   -1.00
33)  Di-isopropyl ether
            1.119 1.194 1.709 1.058 0.934 1.185 1.403 1.537 1.114   1.250   19.91
34)  Chloroprene
            0.540 0.570 0.719 0.521 0.495 0.547 0.640 0.739 0.546   0.591   14.89
35)  Ethyl tert-butyl ether
            0.872 0.847 0.966 0.988 0.952 0.726 0.815 0.894 0.951   0.890    9.55
36)  Ethyl Acetate
            0.464 0.510       0.456 0.424 0.507 0.697       0.462   0.503   18.02
37)  2,2-Dichloropropane
            0.372 0.382 0.403 0.365 0.325 0.346 0.375 0.309 0.386   0.363    8.38
38)  cis-1,2-Dichloroethene
            0.613 0.637 0.904 0.592 0.564 0.631 0.736 0.848 0.614   0.682   17.67
39)  2-Butanone
            0.197 0.193 0.216 0.201 0.192 0.169 0.195 0.188 0.204   0.195    6.49
40)  Propionitrile
            0.070 0.069       0.071 0.067 0.059 0.065       0.072   0.068    6.62
41)  Methacrylonitrile
```

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            0.259 0.264 0.345 0.249 0.226 0.254 0.285 0.296 0.259   0.271   12.71
42)  Bromochloromethane
            0.240 0.250 0.355 0.242 0.237 0.247 0.295 0.282 0.243   0.266   14.73
43)  Chloroform
            0.741 0.791 1.339 0.729 0.697 0.805 1.014 1.407 0.754   0.920   29.71
             ---- Quadratic regression ----  Coefficient =  0.9996
               Response Ratio = 0.00826 + 0.76143 *A + -0.01657 *A^2

44)  Tetrahydrofuran
            0.187 0.193 0.185 0.180 0.163 0.196 0.194       0.189   0.186    5.61
45)  1,1,1-Trichloroethane
            0.596 0.613 0.744 0.610 0.593 0.588 0.678 0.748 0.624   0.644    9.90
46)  Dibromofluoromethane
            0.419 0.426 0.420 0.408 0.399 0.424 0.427 0.419 0.417   0.418    2.16
47)  Cyclohexane
            0.602 0.575 0.730 0.602 0.526 0.558 0.725 0.692 0.620   0.626   11.80
48)  1,1-Dichloropropene
            0.553 0.570 0.880 0.550 0.521 0.569 0.740 0.969 0.566   0.658   25.12
             ---- Quadratic regression ----  Coefficient =  0.9999
               Response Ratio = 0.00242 + 0.57662 *A + -0.01390 *A^2


49) I   1,4-Difluorobenzene   ----------------ISTD--------------------
50)  Carbon Tetrachloride
            0.336 0.334 0.414 0.356 0.355 0.331 0.422 0.363 0.354   0.363    9.17
51)  1,2-Dichloroethane-d4
            0.321 0.339 0.327 0.317 0.317 0.338 0.333 0.332 0.319   0.327    2.68
52)  Isobutyl Alcohol
            0.027 0.026       0.028 0.024 0.024       0.025 0.027   0.026    6.27
53)  Benzene
            1.161 1.220 1.961 1.167 1.138 1.259 1.544 2.029 1.180   1.407   25.27
             ---- Quadratic regression ----  Coefficient =  0.9997
               Response Ratio = 0.01118 + 1.18129 *A + -0.01132 *A^2

54)  1,2-Dichloroethane
            0.383 0.403 0.622 0.390 0.373 0.414 0.482 0.602 0.391   0.451   21.41
             ---- Quadratic regression ----  Coefficient =  0.9999
               Response Ratio = 0.00181 + 0.39872 *A + -0.00641 *A^2

55)  2,2,4-Trimethylpentane
            0.959 0.908 1.173 0.947 0.799 0.906 1.168 1.208 0.957   1.003   14.34
56)  tert-amyl methyl ether
            0.585 0.548 0.565 0.675 0.673 0.453 0.484 0.569 0.640   0.577   13.39
57)  Crotonaldehyde
            0.030 0.031       0.033 0.035 0.022 0.021       0.032   0.029   18.68
58)  n-Butyl Alcohol
            0.007 0.005 0.016 0.010 0.011 0.016 0.018 0.013 0.009   0.012   38.30
             ---- Quadratic regression ----  Coefficient =  0.9975
               Response Ratio = 0.00017 + 0.00794 *A + 0.00007 *A^2

59)  Trichloroethene
            0.309 0.323 0.503 0.316 0.312 0.327 0.397 0.434 0.319   0.360   19.20
60)  Methylcyclohexane
            0.497 0.472 0.572 0.501 0.440 0.462 0.586 0.632 0.505   0.519   12.36
61)  Methyl Methacrylate
            0.264 0.266 0.290 0.265 0.262 0.239 0.251 0.228 0.266   0.259    6.93
62)  1,2-Dichloropropane
            0.284 0.293 0.429 0.283 0.281 0.293 0.344 0.368 0.287   0.318   16.27
63)  Dibromomethane
            0.204 0.210 0.299 0.207 0.206 0.198 0.239 0.266 0.207   0.226   15.48
```

Initial Calibration Summary

Job Number: TD39499 **Sample:** VZ6285-ICC6285
Account: ITCTXDP Intercontinental Terminals **Lab FileID:** Z75827.D
Project: CARDILCL: Deer Park Release

```
64)  1,4-Dioxane
           0.004 0.004       0.004 0.004 0.003 0.002       0.004   0.004   16.92
65)  Bromodichloromethane
           0.346 0.343 0.438 0.368 0.375 0.310 0.349 0.447 0.362   0.371   12.03
66)  2-Nitropropane
           0.081 0.076 0.065 0.086 0.086 0.058 0.060 0.056 0.085   0.073   17.73
67)  2-Chloroethyl vinyl ether
           0.089 0.073 0.026 0.116 0.129 0.045 0.030       0.104   0.077   51.59
            ---- Quadratic regression ----  Coefficient =  0.9991
              Response Ratio = -0.03017 + 0.09954 *A + 0.00155 *A^2

68)  1-Bromo-2-Chloroethane
           0.424 0.445 0.698 0.414 0.395 0.453 0.517 0.603 0.423   0.486   21.07
            ---- Quadratic regression ----  Coefficient =  0.9996
              Response Ratio = 0.00292 + 0.43379 *A + -0.01007 *A^2

69)  Epichlorohydrin
           0.032 0.029       0.034 0.035 0.023 0.022       0.034   0.030   18.21
70)  4-Methyl-2-pentanone
           0.307 0.316 0.525 0.298 0.268 0.317 0.388 0.602 0.305   0.370   31.42
            ---- Quadratic regression ----  Coefficient =  0.9997
              Response Ratio = 0.01522 + 0.31715 *A + -0.00244 *A^2

71)  cis-1,3-Dichloropropene
           0.484 0.474 0.435 0.512 0.515 0.400 0.369 0.343 0.513   0.449   14.63

72) I   Chlorobenzene-d5      ----------------ISTD--------------------
73)  Toluene-d8
           1.222 1.249 1.265 1.186 1.182 1.257 1.264 1.261 1.200   1.232    2.80
74)  Toluene
           1.403 1.489 2.275 1.372 1.295 1.522 1.891 2.242 1.415   1.656   23.01
            ---- Quadratic regression ----  Coefficient =  0.9997
              Response Ratio = 0.01157 + 1.45006 *A + -0.03957 *A^2

75)  Ethyl Methacrylate
           0.475 0.462 0.342 0.491 0.477 0.371 0.366       0.498   0.435   14.66
76)  trans-1,3-Dichloropropene
           0.433 0.393 0.302 0.483 0.492 0.283 0.259       0.481   0.391   24.75
            ---- Quadratic regression ----  Coefficient =  0.9981
              Response Ratio = -0.00616 + 0.44590 *A + 0.01309 *A^2

77)  1,1,2-Trichloroethane
           0.268 0.283 0.420 0.264 0.251 0.272 0.311 0.350 0.271   0.299   18.25
78)  Tetrachloroethene
           0.424 0.438 0.632 0.425 0.417 0.434 0.525 0.611 0.435   0.482   17.71
79)  2-hexanone
           0.244 0.241 0.352 0.246 0.222 0.218 0.269       0.251   0.255   16.57
80)  1,3-Dichloropropane
           0.559 0.573 0.857 0.552 0.533 0.578 0.655 0.811 0.565   0.632   19.03
81)  Dibromochloromethane
           0.318 0.301 0.324 0.345 0.351 0.238 0.247 0.244 0.342   0.301   15.38
82)  n-Butyl Acetate
           0.525 0.522 0.621 0.521 0.463 0.466 0.522 0.539 0.534   0.524    8.71
83)  1,2-Dibromoethane
           0.362 0.365 0.464 0.364 0.357 0.354 0.391 0.429 0.368   0.384    9.94
84)  1-Chlorohexane
           0.432 0.422 0.416 0.450 0.431 0.373 0.424 0.372 0.454   0.419    6.96
85)  Chlorobenzene
           0.959 1.001 1.515 0.959 0.918 1.011 1.230 1.477 0.981   1.117   20.85
            ---- Quadratic regression ----  Coefficient =  0.9999
```

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                Response Ratio = 0.00485 + 0.99510 *A + -0.01961 *A^2

 86)  1,1,1,2-Tetrachloroethane
            0.316 0.312 0.369 0.333 0.331 0.280 0.314 0.308 0.337   0.322    7.54
 87)  Ethylbenzene
            1.554 1.648 2.440 1.529 1.409 1.621 1.989 2.164 1.582   1.771   19.56
 88)  m,p-Xylene
            1.220 1.269 1.809 1.160 1.023 1.291 1.518 1.719 1.210   1.358   19.57
 89)  o-Xylene
            1.293 1.326 1.823 1.278 1.184 1.292 1.547 1.727 1.308   1.420   15.79
 90)  Styrene
            1.035 1.025 1.188 1.037 0.965 0.948 1.040 1.004 1.058   1.033    6.63
 91)  Bromoform
            0.210 0.184 0.142 0.258 0.276 0.135 0.143 0.111 0.245   0.189   31.92
             ---- Quadratic regression ----  Coefficient =  0.9973
                Response Ratio = -0.00180 + 0.21034 *A + 0.01752 *A^2


 92) I   1,4-Dichlorobenzene-d ----------------ISTD--------------------
 93)  Isopropylbenzene
            2.913 2.996 4.170 2.907 2.716 2.915 3.470 4.051 3.007   3.238   16.51
 94)  Cyclohexanone
            0.018 0.018       0.022 0.023 0.013 0.031       0.020   0.021   26.14
             ---- Quadratic regression ----  Coefficient =  0.9992
                Response Ratio = -0.00311 + 0.01996 *A + 0.00016 *A^2

 95)  4-Bromofluorobenzene
            0.903 0.899 0.913 0.901 0.903 0.906 0.894 0.906 0.914   0.904    0.71
 96)  Bromobenzene
            0.868 0.892 1.286 0.892 0.882 0.887 0.972 1.217 0.908   0.978   16.21
 97)  1,1,2,2-Tetrachloroethane
            0.889 0.897 1.418 0.899 0.857 0.902 1.100 1.211 0.912   1.009   19.16
 98)  Trans-1,4-Dichloro-2-Butene
            0.147 0.125       0.166 0.168 0.079 0.055       0.164   0.129   35.18
             ---- Quadratic regression ----  Coefficient =  0.9982
                Response Ratio = -0.00551 + 0.15623 *A + 0.00370 *A^2

 99)  1,2,3-Trichloropropane
            0.282 0.282 0.470 0.278 0.271 0.292 0.349 0.318 0.288   0.314   20.07
             ---- Quadratic regression ----  Coefficient =  0.9992
                Response Ratio = 0.00148 + 0.28710 *A + -0.00413 *A^2

100)  n-Propylbenzene
            3.439 3.539 4.683 3.334 3.121 3.433 3.965 4.410 3.510   3.715   14.15
101)  2-Chlorotoluene
            2.053 2.182 3.434 2.032 1.913 2.278 2.740 3.350 2.109   2.455   23.67
             ---- Quadratic regression ----  Coefficient =  0.9999
                Response Ratio = 0.01563 + 2.14945 *A + -0.06013 *A^2

102)  4-Chlorotoluene
            2.436 2.512 3.715 2.406 2.276 2.504 2.985 3.532 2.471   2.759   19.15
103)  1,3,5-Trimethylbenzene
            2.438 2.486 3.344 2.443 2.306 2.399 2.782 3.050 2.508   2.640   13.22
104)  Butyl Methacrylate
            0.764 0.656 0.298 0.966 0.982 0.408 0.322 0.145 0.917   0.606   52.84
             ---- Quadratic regression ----  Coefficient =  0.9949
                Response Ratio = -0.01153 + 0.80054 *A + 0.05095 *A^2

105)  alpha-Methylstyrene
            1.225 1.198 1.224 1.292 1.268 1.066 1.085 1.023 1.289   1.185    8.60
```

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106)  Pentachloroethane
            0.412 0.376 0.466 0.466 0.479 0.324 0.352 0.340 0.455   0.408   14.95
107)  sec-Butylbenzene
            3.155 3.236 4.248 3.171 2.986 3.176 3.772 4.304 3.246   3.477   14.40
108)  1,3-Dichlorobenzene
            1.577 1.623 2.472 1.582 1.543 1.651 2.004 2.398 1.617   1.830   20.20
             ---- Quadratic regression ----  Coefficient =  0.9999
               Response Ratio = 0.00811 + 1.61920 *A + -0.01946 *A^2

109)  4-Isopropyltoluene
            2.693 2.783 3.827 2.658 2.442 2.741 3.315 3.718 2.739   2.991   16.73
110)  1,4-Dichlorobenzene
            1.589 1.636 2.726 1.561 1.458 1.691 2.105 2.557 1.611   1.881   24.91
             ---- Quadratic regression ----  Coefficient =  0.9996
               Response Ratio = 0.01348 + 1.64157 *A + -0.04616 *A^2

111)  tert-Butylbenzene
            1.363 1.416 2.034 1.355 1.258 1.455 1.735 1.756 1.395   1.530   16.60
112)  Dicyclopentadiene
            2.291 2.383 3.960 2.221 1.965 2.470 3.111 4.522 2.324   2.805   31.40
             ---- Quadratic regression ----  Coefficient =  0.9996
               Response Ratio = 0.02368 + 2.41353 *A + -0.11163 *A^2

113)  n-Butylbenzene
            2.939 3.016 3.912 2.871 2.627 3.015 3.460 3.767 2.928   3.171   13.81
114)  1,2-Dichlorobenzene
            1.507 1.543 2.513 1.538 1.495 1.580 1.941 2.287 1.554   1.773   21.66
             ---- Quadratic regression ----  Coefficient =  0.9999
               Response Ratio = 0.00502 + 1.56305 *A + -0.01707 *A^2

115)  1,2,4-Trimethylbenzene
            2.470 2.539 3.284 2.505 2.365 2.459 2.803 3.163 2.563   2.683   12.28
116)  Benzyl Chloride
            2.318 1.748 0.627 2.933 2.904 0.855 0.661       2.781   1.853   55.03
             ---- Quadratic regression ----  Coefficient =  0.9926
               Response Ratio = -0.06738 + 2.47189 *A + 0.12912 *A^2

117)  p-Diethylbenzene
            1.564 1.603 2.015 1.604 1.535 1.554 1.778 1.810 1.615   1.675    9.56
118)  Hexachloroethane
            0.294 0.265 0.264 0.381 0.407 0.225 0.230 0.186 0.355   0.290   26.21
             ---- Quadratic regression ----  Coefficient =  0.9971
               Response Ratio = -0.00186 + 0.30164 *A + 0.02796 *A^2

119)  1,2-Dibromo-3-Chloropropane
            0.133 0.121 0.083 0.169 0.179 0.107 0.110       0.155   0.132   25.19
             ---- Quadratic regression ----  Coefficient =  0.9978
               Response Ratio = -0.00151 + 0.13668 *A + 0.01120 *A^2

120)  1,2,4-Trichlorobenzene
            1.065 1.076 1.498 1.218 1.241 1.086 1.261 1.482 1.160   1.232   13.24
121)  1,3-Diethylbenzene
            1.595 1.623 1.949 1.655 1.582 1.517 1.715 1.802 1.662   1.678    7.78
122)  Hexachlorobutadiene
            0.574 0.595 0.963 0.653 0.656 0.655 0.828 0.922 0.622   0.719   20.31
             ---- Quadratic regression ----  Coefficient =  0.9989
               Response Ratio = 0.00518 + 0.59311 *A + 0.01658 *A^2

123)  Naphthalene
            2.397 2.462 2.992 2.685 2.722 2.425 2.691 2.711 2.570   2.628    7.13
```

Initial Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release
Sample: VZ6285-ICC6285
Lab FileID: Z75827.D

```
124)  1,2,3-Trichlorobenzene
            0.937 0.974 1.471 1.035 1.074 1.026 1.190 1.284 0.988   1.109   15.77

125) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
126)  TPH-GRO (C6-C10)
                                                                      0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          VZ6285.m          Tue May 21 08:06:40 2019
```

Initial Calibration Verification

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release
Sample: VZ6285-ICV6285
Lab FileID: Z75833.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\VZ6285\Z75833.D            Vial: 19
Acq On    : 20 May 2019   5:44 pm                    Operator: firatt
Sample    : icv6285-40                               Inst    : MS_Z
Misc      : ms24730,vz6285,5,,,5,,water              Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\VZ6285.m (RTE Integrator)
Title        : SW846 8260C and EPA 624
Last Update  : Mon May 20 18:25:41 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	Pentafluorobenzene	50.000	50.000	0.0	112	0.00	3.45
2	p	Dichlorodifluoromethane	40.000	28.727	28.2	90	0.00	0.73
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	42.404	-6.0	136	0.00	0.83
4	p	Vinyl Chloride	40.000	38.971	2.6	128	0.00	0.89
		----------	Amount	Calc.	%Drift		----------	
5		1,3-Butadiene	40.000	40.578	-1.4	142	0.00	0.86
		----------	Amount	Calc.	%Drift		----------	
6		Ethylene Oxide	2000.000	2010.037	-0.5	109	0.00	0.99
7	p	Bromomethane	40.000	39.643	0.9	115	0.00	1.02
8	p	Chloroethane	40.000	34.458	13.9	97	0.00	1.06
		----------	Amount	Calc.	%Drift		----------	
9		Vinyl Bromide	40.000	37.289	6.8	110	0.00	1.16
		----------	Amount	Calc.	%Drift		----------	
10	p	Trichlorofluoromethane	40.000	36.590	8.5	107	0.00	1.20
		----------	Amount	Calc.	%Drift		----------	
11		Ethyl Alcohol	400.000	359.663	10.1	102	0.00	1.35
12		Ethyl Ether	40.000	33.735	15.7	102	0.00	1.35
13		Acrolein	200.000	190.368	4.8	109	0.00	1.43
14	p	1,1-Dichloroethene	40.000	32.853	17.9	103	0.00	1.48
15	p	Freon 113	40.000	33.516	16.2	97	0.00	1.50
16	p	Acetone	200.000	197.739	1.1	118	0.00	1.53
		----------	Amount	Calc.	%Drift		----------	
17		Propylene Oxide	40.000	41.421	-3.6	118	0.00	1.39
		----------	Amount	Calc.	%Drift		----------	
18		Isopropyl Alcohol	400.000	377.069	5.7	115	0.00	1.66
19		Iodomethane	40.000	35.156	12.1	111	0.00	1.57
20	p	Methyl acetate	200.000	191.627	4.2	109	0.00	1.76
21	p	Carbon Disulfide	40.000	40.762	-1.9	112	0.00	1.60
22		Allyl Chloride	40.000	39.137	2.2	102	0.00	1.73
23		Acetonitrile	200.000	196.177	1.9	105	0.00	1.73
24	p	Methylene Chloride	40.000	36.098	9.8	106	0.00	1.82
25		Tert Butyl Alcohol	400.000	343.663	14.1	108	0.00	1.97

Initial Calibration Verification

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6285-ICV6285
Lab FileID: Z75833.D

			Amount	Calc.	%Drift			
26	p	trans-1,2-Dichloroethene	40.000	36.120	9.7	106	0.00	2.02
			Amount	Calc.	%Drift			
27		Acrylonitrile	200.000	186.683	6.7	118	0.00	2.04
28		Hexane	40.000	31.324	21.7	90	0.00	2.25
29	p	Methyl Tert Butyl Ether	40.000	39.181	2.0	121	0.00	2.04
30	P	1,1-Dichloroethane	40.000	33.593	16.0	106	0.00	2.38
31		Vinyl acetate	100.000	98.498	1.5	116	0.00	2.46
32		Allyl Alcohol		----------NA----------				
33		Di-isopropyl ether	40.000	37.554	6.1	117	0.00	2.47
34		Chloroprene	40.000	33.430	16.4	102	0.00	2.45
35		Ethyl tert-butyl ether	40.000	43.604	-9.0	124	0.00	2.79
36		Ethyl Acetate	100.000	94.374	5.6	114	0.00	3.03
37		2,2-Dichloropropane	40.000	37.797	5.5	103	0.00	2.88
38	p	cis-1,2-Dichloroethene	40.000	33.784	15.5	105	0.00	2.90
39	p	2-Butanone	200.000	231.205	-15.6	128	0.00	2.96
40		Propionitrile	200.000	226.336	-13.2	123	0.00	3.02
41		Methacrylonitrile	200.000	215.353	-7.7	126	0.00	3.15
42		Bromochloromethane	40.000	37.320	6.7	116	0.00	3.12
			Amount	Calc.	%Drift			
43	p	Chloroform	40.000	36.572	8.6	105	0.00	3.22
			Amount	Calc.	%Drift			
44		Tetrahydrofuran	40.000	43.068	-7.7	120	0.00	3.16
45	p	1,1,1-Trichloroethane	40.000	34.176	14.6	103	0.00	3.34
46	S	Dibromofluoromethane	50.000	49.209	1.6	110	0.00	3.37
47	p	Cyclohexane	40.000	36.342	9.1	106	0.00	3.37
			Amount	Calc.	%Drift			
48		1,1-Dichloropropene	40.000	37.027	7.4	107	0.00	3.51
			Amount	Calc.	%Drift			
49	I	1,4-Difluorobenzene	50.000	50.000	0.0	111	0.00	4.15
50	p	Carbon Tetrachloride	40.000	33.735	15.7	101	0.00	3.50
51	S	1,2-Dichloroethane-d4	50.000	47.594	4.8	108	0.00	3.68
52		Isobutyl Alcohol	400.000	419.195	-4.8	111	0.00	3.80
			Amount	Calc.	%Drift			
53	p	Benzene	40.000	38.300	4.3	109	0.00	3.71
54	p	1,2-Dichloroethane	40.000	37.902	5.2	109	0.00	3.76
			Amount	Calc.	%Drift			
55		2,2,4-Trimethylpentane	40.000	34.940	12.7	102	0.00	3.80
56		tert-amyl methyl ether	40.000	46.135	-15.3	127	0.00	3.87
57		Crotonaldehyde	200.000	232.803	-16.4	124	0.00	4.09
			Amount	Calc.	%Drift			
58		n-Butyl Alcohol	400.000	410.507	-2.6	130	0.00	4.50
			Amount	Calc.	%Drift			
59	p	Trichloroethene	40.000	33.712	15.7	109	0.00	4.38
60	p	Methylcyclohexane	40.000	35.203	12.0	102	0.00	4.55
61		Methyl Methacrylate	40.000	45.271	-13.2	124	0.00	4.84
62	p	1,2-Dichloropropane	40.000	36.416	9.0	114	0.00	4.63
63		Dibromomethane	40.000	34.665	13.3	107	0.00	4.75
64		1,4-Dioxane	800.000	851.678	-6.5	114	0.00	4.82
65	p	Bromodichloromethane	40.000	37.582	6.0	112	0.00	4.96

Initial Calibration Verification

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6285-ICV6285
Lab FileID: Z75833.D

			Amount	Calc.	%Drift			
66		2-Nitropropane	200.000	209.695	-4.8	104	0.00	5.25
67		2-Chloroethyl vinyl ether	200.000	240.663	-20.3	151	0.00	5.36
68		1-Bromo-2-Chloroethane	40.000	40.080	-0.2	113	0.00	5.27
69		Epichlorohydrin	200.000	234.054	-17.0	122	0.00	5.41
70	p	4-Methyl-2-pentanone	200.000	215.035	-7.5	121	0.00	5.71
71	p	cis-1,3-Dichloropropene	40.000	41.509	-3.8	107	0.00	5.47
72	I	Chlorobenzene-d5	50.000	50.000	0.0	111	0.00	7.40
73	S	Toluene-d8	50.000	49.681	0.6	111	0.00	5.74
74	p	Toluene	40.000	37.791	5.5	107	0.00	5.82
75		Ethyl Methacrylate	40.000	48.091	-20.2	122	0.00	6.32
76	p	trans-1,3-Dichloropropene	40.000	40.803	-2.0	117	0.00	6.15
77	p	1,1,2-Trichloroethane	40.000	35.316	11.7	110	0.00	6.35
78	p	Tetrachloroethene	40.000	33.438	16.4	106	0.00	6.43
79	p	2-hexanone	200.000	210.356	-5.2	122	0.00	6.72
80		1,3-Dichloropropane	40.000	33.575	16.1	105	0.00	6.53
81	p	Dibromochloromethane	40.000	42.203	-5.5	111	0.00	6.79
82		n-Butyl Acetate	100.000	104.132	-4.1	115	0.00	6.90
83	p	1,2-Dibromoethane	40.000	36.950	7.6	109	0.00	6.87
84		1-Chlorohexane	40.000	43.461	-8.7	117	0.00	7.48
85	P	Chlorobenzene	40.000	37.839	5.4	108	0.00	7.43
86		1,1,1,2-Tetrachloroethane	40.000	39.294	1.8	111	0.00	7.55
87	p	Ethylbenzene	40.000	34.715	13.2	110	0.00	7.58
88	p	m,p-Xylene	80.000	69.260	13.4	107	0.00	7.71
89	p	o-Xylene	40.000	35.476	11.3	108	0.00	8.11
90	p	Styrene	40.000	40.041	-0.1	111	0.00	8.14
91	P	Bromoform	40.000	38.145	4.6	111	0.00	8.30
92	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	110	0.00	9.74
93	p	Isopropylbenzene	40.000	37.034	7.4	113	0.00	8.50
94		Cyclohexanone	200.000	258.697	-29.3	158	0.00	8.58
95	S	4-Bromofluorobenzene	50.000	49.841	0.3	109	0.00	8.64

96		Bromobenzene	40.000	35.159	12.1	109	0.00	8.75
97	P	1,1,2,2-Tetrachloroethane	40.000	36.401	9.0	113	0.00	8.85
		----------	Amount	Calc.	%Drift		----------	
98		Trans-1,4-Dichloro-2-Bute	40.000	42.248	-5.6	120	0.00	8.91
99		1,2,3-Trichloropropane	40.000	37.866	5.3	105	0.00	8.86
		----------	Amount	Calc.	%Drift		----------	
100		n-Propylbenzene	40.000	36.669	8.3	109	0.00	8.91
		----------	Amount	Calc.	%Drift		----------	
101		2-Chlorotoluene	40.000	37.660	5.9	107	0.00	8.96
		----------	Amount	Calc.	%Drift		----------	
102		4-Chlorotoluene	40.000	34.358	14.1	107	0.00	9.07
103		1,3,5-Trimethylbenzene	40.000	36.976	7.6	110	0.00	9.10
		----------	Amount	Calc.	%Drift		----------	
104		Butyl Methacrylate	40.000	44.170	-10.4	132	0.00	9.26
		----------	Amount	Calc.	%Drift		----------	
105		alpha-Methylstyrene	40.000	47.617	-19.0	126	0.00	9.31
106		Pentachloroethane	40.000	43.571	-8.9	118	0.00	9.39
107		sec-Butylbenzene	40.000	36.536	8.7	110	0.00	9.60
		----------	Amount	Calc.	%Drift		----------	
108	p	1,3-Dichlorobenzene	40.000	39.302	1.7	110	0.00	9.67
		----------	Amount	Calc.	%Drift		----------	
109		4-Isopropyltoluene	40.000	35.639	10.9	108	0.00	9.75
		----------	Amount	Calc.	%Drift		----------	
110	p	1,4-Dichlorobenzene	40.000	38.170	4.6	107	0.00	9.76
		----------	Amount	Calc.	%Drift		----------	
111		tert-Butylbenzene	40.000	34.424	13.9	106	0.00	9.39
		----------	Amount	Calc.	%Drift		----------	
112		Dicyclopentadiene	40.000	47.072	-17.7	131	0.00	9.75
		----------	Amount	Calc.	%Drift		----------	
113		n-Butylbenzene	40.000	37.170	7.1	110	0.00	10.13
		----------	Amount	Calc.	%Drift		----------	
114	p	1,2-Dichlorobenzene	40.000	38.224	4.4	108	0.00	10.09
		----------	Amount	Calc.	%Drift		----------	
115		1,2,4-Trimethylbenzene	40.000	37.084	7.3	110	0.00	9.44
		----------	Amount	Calc.	%Drift		----------	
116		Benzyl Chloride	40.000	42.758	-6.9	127	0.00	9.91
		----------	Amount	Calc.	%Drift		----------	
117		p-Diethylbenzene	40.000	41.421	-3.6	122	0.00	10.11
		----------	Amount	Calc.	%Drift		----------	
118		Hexachloroethane	40.000	38.427	3.9	115	0.00	10.31
119	p	1,2-Dibromo-3-Chloropropa	40.000	38.069	4.8	112	0.00	10.82
		----------	Amount	Calc.	%Drift		----------	

Initial Calibration Verification

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6285-ICV6285
Lab FileID: Z75833.D

120	p	1,2,4-Trichlorobenzene	40.000	35.133	12.2	111	0.00	11.55
121		1,3-Diethylbenzene	40.000	40.267	-0.7	116	0.00	10.04
		----------	Amount	Calc.	%Drift		----------	
122		Hexachlorobutadiene	40.000	37.429	6.4	109	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
123		Naphthalene	40.000	38.316	4.2	115	0.00	11.75
124		1,2,3-Trichlorobenzene	40.000	34.860	12.9	113	0.00	11.97
125	I	1,4-Dichlorobenzene-d4a	50.000	50.000	0.0	110	0.00	9.74
126	H	TPH-GRO (C6-C10)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z75827.D VZ6285.m Tue May 21 08:05:10 2019

6.7.2

6

Continuing Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release
Sample: VZ6291-CC6285
Lab FileID: Z75930.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\VZ6291\Z75930.D            Vial: 3
Acq On    : 24 May 2019   7:59 am                    Operator: firatt
Sample    : CC6285-20                                Inst    : MS_Z
Misc      : ms24759,vz6291,5,,,5,,water              Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\VZ6285.m (RTE Integrator)
Title        : SW846 8260C and EPA 624
Last Update  : Mon May 20 18:25:41 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	Pentafluorobenzene	50.000	50.000	0.0	73	0.00	3.45
2	p	Dichlorodifluoromethane	20.000	16.087	19.6	66	0.00	0.73
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	20.000	20.061	-0.3	70	0.00	0.83
4	p	Vinyl Chloride	20.000	20.125	-0.6	70	0.00	0.88
		----------	Amount	Calc.	%Drift		----------	
5		1,3-Butadiene	20.000	18.437	7.8	71	0.00	0.86
		----------	Amount	Calc.	%Drift		----------	
6		Ethylene Oxide	1000.000	1243.011	-24.3#	86	0.00	1.00
7	p	Bromomethane	20.000	19.645	1.8	72	0.00	1.02
8	p	Chloroethane	20.000	21.163	-5.8	70	0.00	1.07
		----------	Amount	Calc.	%Drift		----------	
9		Vinyl Bromide	20.000	18.636	6.8	70	0.00	1.16
		----------	Amount	Calc.	%Drift		----------	
10	p	Trichlorofluoromethane	20.000	17.564	12.2	66	0.00	1.20
		----------	Amount	Calc.	%Drift		----------	
11		Ethyl Alcohol	200.000	182.178	8.9	63	0.00	1.35
12		Ethyl Ether	20.000	18.619	6.9	70	0.00	1.35
13		Acrolein	100.000	91.686	8.3	68	0.00	1.44
14	p	1,1-Dichloroethene	20.000	16.937	15.3	68	0.00	1.48
15	p	Freon 113	20.000	17.373	13.1	69	0.00	1.51
16	p	Acetone	100.000	92.229	7.8	68	0.00	1.54
		----------	Amount	Calc.	%Drift		----------	
17		Propylene Oxide	20.000	18.409	8.0	72	0.00	1.39
		----------	Amount	Calc.	%Drift		----------	
18		Isopropyl Alcohol	200.000	148.341	25.8#	58	0.00	1.67
19		Iodomethane	20.000	16.455	17.7	66	0.00	1.57
20	p	Methyl acetate	100.000	100.107	-0.1	74	0.00	1.77
21	p	Carbon Disulfide	20.000	19.430	2.9	72	0.00	1.60
22		Allyl Chloride	20.000	21.790	-8.9	76	0.00	1.73
23		Acetonitrile	100.000	98.762	1.2	70	0.00	1.73
24	p	Methylene Chloride	20.000	17.439	12.8	65	0.00	1.82
25		Tert Butyl Alcohol	200.000	152.261	23.9#	59	0.01	1.98

Continuing Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6291-CC6285
Lab FileID: Z75930.D

			Amount	Calc.	%Drift			
26	p	trans-1,2-Dichloroethene	20.000	21.931	-9.7	77	0.00	2.03
			Amount	Calc.	%Drift			
27		Acrylonitrile	100.000	111.378	-11.4	82	0.00	2.04
28		Hexane	20.000	19.973	0.1	79	0.00	2.25
29	p	Methyl Tert Butyl Ether	20.000	19.999	0.0	77	0.00	2.04
30	P	1,1-Dichloroethane	20.000	18.503	7.5	73	0.00	2.39
31		Vinyl acetate	50.000	50.887	-1.8	75	0.00	2.47
32		Allyl Alcohol		----------NA----------				
33		Di-isopropyl ether	20.000	19.711	1.4	75	0.00	2.47
34		Chloroprene	20.000	18.800	6.0	71	0.00	2.46
35		Ethyl tert-butyl ether	20.000	24.206	-21.0#	92	0.00	2.80
36		Ethyl Acetate	50.000	49.380	1.2	71	0.00	3.03
37		2,2-Dichloropropane	20.000	19.485	2.6	67	0.00	2.88
38	p	cis-1,2-Dichloroethene	20.000	18.595	7.0	72	0.00	2.90
39	p	2-Butanone	100.000	105.889	-5.9	78	0.00	2.96
40		Propionitrile	100.000	108.861	-8.9	77	0.00	3.03
41		Methacrylonitrile	100.000	103.949	-3.9	77	0.00	3.15
42		Bromochloromethane	20.000	18.097	9.5	70	0.00	3.13
			Amount	Calc.	%Drift			
43	p	Chloroform	20.000	19.452	2.7	69	0.00	3.23
			Amount	Calc.	%Drift			
44		Tetrahydrofuran	20.000	21.312	-6.6	75	0.00	3.17
45	p	1,1,1-Trichloroethane	20.000	17.759	11.2	68	0.00	3.35
46	S	Dibromofluoromethane	50.000	52.226	-4.5	74	0.00	3.37
47	p	Cyclohexane	20.000	20.793	-4.0	82	0.00	3.37
			Amount	Calc.	%Drift			
48		1,1-Dichloropropene	20.000	19.587	2.1	72	0.00	3.51
			Amount	Calc.	%Drift			
49	I	1,4-Difluorobenzene	50.000	50.000	0.0	74	0.00	4.15
50	p	Carbon Tetrachloride	20.000	16.978	15.1	68	0.00	3.50
51	S	1,2-Dichloroethane-d4	50.000	49.888	0.2	71	0.00	3.68
52		Isobutyl Alcohol	200.000	184.624	7.7	69	0.00	3.80
			Amount	Calc.	%Drift			
53	p	Benzene	20.000	19.743	1.3	72	0.00	3.71
54	p	1,2-Dichloroethane	20.000	18.263	8.7	68	0.00	3.76
			Amount	Calc.	%Drift			
55		2,2,4-Trimethylpentane	20.000	19.307	3.5	79	0.00	3.80
56		tert-amyl methyl ether	20.000	25.616	-28.1#	100	0.00	3.87
57		Crotonaldehyde	100.000	124.830	-24.8#	88	0.00	4.10
			Amount	Calc.	%Drift			
58		n-Butyl Alcohol	200.000	100.921	49.5#	63	0.02	4.52
			Amount	Calc.	%Drift			
59	p	Trichloroethene	20.000	16.550	17.2	68	0.00	4.39
60	p	Methylcyclohexane	20.000	18.555	7.2	76	0.00	4.55
61		Methyl Methacrylate	20.000	19.873	0.6	72	0.00	4.85
62	p	1,2-Dichloropropane	20.000	18.291	8.5	74	0.00	4.63
63		Dibromomethane	20.000	17.140	14.3	69	0.00	4.76
64		1,4-Dioxane	400.000	277.876	30.5#	48	0.00	4.82
65	p	Bromodichloromethane	20.000	17.575	12.1	70	0.00	4.96

Continuing Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6291-CC6285
Lab FileID: Z75930.D

			Amount	Calc.	%Drift			
66		2-Nitropropane	100.000	93.218	6.8	66	0.00	5.25
67		2-Chloroethyl vinyl ether	100.000	217.803	-117.8#	221	0.00	5.36
68		1-Bromo-2-Chloroethane	20.000	19.568	2.2	71	0.00	5.28
69		Epichlorohydrin	100.000	109.380	-9.4	83	0.00	5.41
70	p	4-Methyl-2-pentanone	100.000	99.336	0.7	75	0.00	5.70
71	p	cis-1,3-Dichloropropene	20.000	21.241	-6.2	75	0.00	5.47
72	I	Chlorobenzene-d5	50.000	50.000	0.0	74	0.00	7.40
73	S	Toluene-d8	50.000	51.322	-2.6	75	0.00	5.74
74	p	Toluene	20.000	19.337	3.3	70	0.00	5.82
75		Ethyl Methacrylate	20.000	21.134	-5.7	74	0.00	6.32
76	p	trans-1,3-Dichloropropene	20.000	19.092	4.5	78	0.00	6.15
77	p	1,1,2-Trichloroethane	20.000	18.161	9.2	71	0.00	6.35
78	p	Tetrachloroethene	20.000	16.305	18.5	66	0.00	6.44
79	p	2-hexanone	100.000	100.910	-0.9	79	0.00	6.72
80		1,3-Dichloropropane	20.000	17.611	11.9	72	0.00	6.53
81	p	Dibromochloromethane	20.000	19.389	3.1	72	0.00	6.79
82		n-Butyl Acetate	50.000	52.125	-4.3	77	0.00	6.90
83	p	1,2-Dibromoethane	20.000	18.031	9.8	70	0.00	6.87
84		1-Chlorohexane	20.000	20.924	-4.6	77	0.00	7.48
85	P	Chlorobenzene	20.000	18.795	6.0	69	0.00	7.43
86		1,1,1,2-Tetrachloroethane	20.000	18.045	9.8	69	0.00	7.55
87	p	Ethylbenzene	20.000	17.838	10.8	71	0.00	7.58
88	p	m,p-Xylene	40.000	36.167	9.6	71	0.00	7.71
89	p	o-Xylene	20.000	17.871	10.6	71	0.00	8.11
90	p	Styrene	20.000	20.539	-2.7	77	0.00	8.14
91	P	Bromoform	20.000	16.950	15.3	72	0.00	8.30
92	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	73	0.00	9.74
93	p	Isopropylbenzene	20.000	17.623	11.9	69	0.00	8.50
94		Cyclohexanone	100.000	130.768	-30.8#	102	0.00	8.59
95	S	4-Bromofluorobenzene	50.000	50.150	-0.3	73	0.00	8.64

Continuing Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Sample: VZ6291-CC6285
Lab FileID: Z75930.D

			Amount	Calc.	%Drift			
96		Bromobenzene	20.000	16.911	15.4	67	0.00	8.75
97	P	1,1,2,2-Tetrachloroethane	20.000	17.902	10.5	73	0.00	8.85
			Amount	Calc.	%Drift			
98		Trans-1,4-Dichloro-2-Bute	20.000	21.936	-9.7	92	0.00	8.91
99		1,2,3-Trichloropropane	20.000	18.228	8.9	68	0.00	8.85
			Amount	Calc.	%Drift			
100		n-Propylbenzene	20.000	18.974	5.1	72	0.00	8.91
			Amount	Calc.	%Drift			
101		2-Chlorotoluene	20.000	19.445	2.8	70	0.00	8.96
			Amount	Calc.	%Drift			
102		4-Chlorotoluene	20.000	17.656	11.7	71	0.00	9.07
103		1,3,5-Trimethylbenzene	20.000	18.958	5.2	73	0.00	9.10
			Amount	Calc.	%Drift			
104		Butyl Methacrylate	20.000	22.988	-14.9	102	0.00	9.26
			Amount	Calc.	%Drift			
105		alpha-Methylstyrene	20.000	23.059	-15.3	83	0.00	9.31
106		Pentachloroethane	20.000	18.751	6.2	74	0.00	9.39
107		sec-Butylbenzene	20.000	18.569	7.2	73	0.00	9.60
			Amount	Calc.	%Drift			
108	p	1,3-Dichlorobenzene	20.000	18.740	6.3	69	0.00	9.67
			Amount	Calc.	%Drift			
109		4-Isopropyltoluene	20.000	19.045	4.8	74	0.00	9.75
			Amount	Calc.	%Drift			
110	p	1,4-Dichlorobenzene	20.000	18.915	5.4	70	0.00	9.76
			Amount	Calc.	%Drift			
111		tert-Butylbenzene	20.000	18.168	9.2	71	0.00	9.39
			Amount	Calc.	%Drift			
112		Dicyclopentadiene	20.000	22.287	-11.4	82	0.00	9.75
			Amount	Calc.	%Drift			
113		n-Butylbenzene	20.000	19.848	0.8	76	0.00	10.13
			Amount	Calc.	%Drift			
114	p	1,2-Dichlorobenzene	20.000	19.001	5.0	70	0.00	10.09
			Amount	Calc.	%Drift			
115		1,2,4-Trimethylbenzene	20.000	19.142	4.3	74	0.00	9.44
			Amount	Calc.	%Drift			
116		Benzyl Chloride	20.000	20.290	-1.4	100	0.00	9.91
			Amount	Calc.	%Drift			
117		p-Diethylbenzene	20.000	20.102	-0.5	76	0.00	10.11
			Amount	Calc.	%Drift			
118		Hexachloroethane	20.000	19.183	4.1	81	0.00	10.31
119	p	1,2-Dibromo-3-Chloropropa	20.000	18.865	5.7	78	0.00	10.82
			Amount	Calc.	%Drift			

Continuing Calibration Summary

Job Number: TD39499
Account: ITCTXDP Intercontinental Terminals
Project: CARDILCL: Deer Park Release
Sample: VZ6291-CC6285
Lab FileID: Z75930.D

120	p	1,2,4-Trichlorobenzene	20.000	18.520	7.4	77	0.00	11.55
121		1,3-Diethylbenzene	20.000	19.637	1.8	74	0.00	10.04
		----------	Amount	Calc.	%Drift		----------	
122		Hexachlorobutadiene	20.000	20.197	-1.0	76	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
123		Naphthalene	20.000	20.391	-2.0	79	0.00	11.75
124		1,2,3-Trichlorobenzene	20.000	18.728	6.4	78	0.00	11.97
125	I	1,4-Dichlorobenzene-d4a	50.000	50.000	0.0	73	0.00	9.74
126	H	TPH-GRO (C6-C10)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z75826.D VZ6285.m Fri May 24 08:51:23 2019

6.7.3

6

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75936.D
Acq On : 24 May 2019 10:27 am
Operator : firatt
Sample : td39499-1 comp
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 24 11:08:03 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

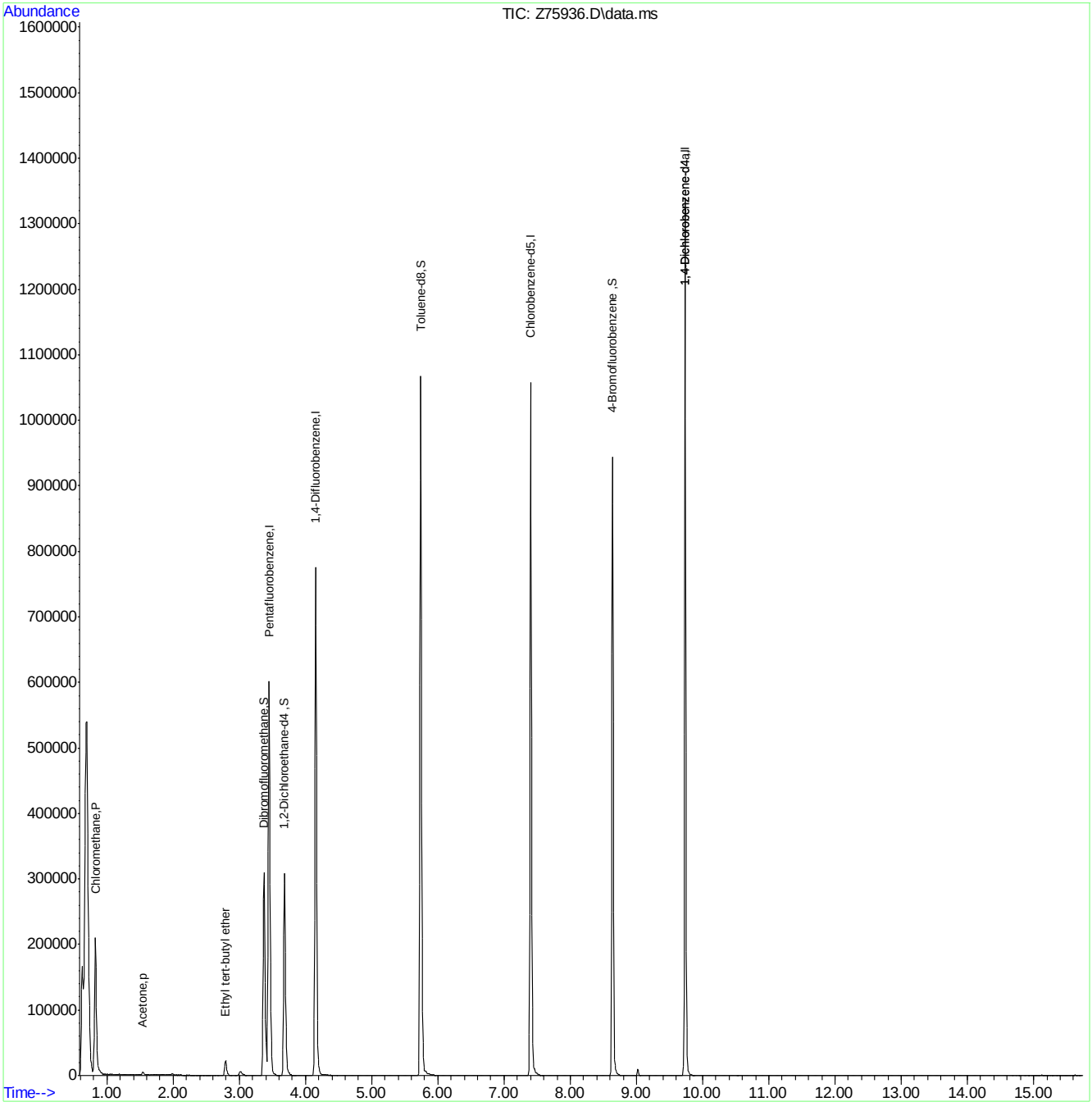
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.449	168	470771	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	696268	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	621681	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	323395	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	323395	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	198045	50.36	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 100.72%			
51) 1,2-Dichloroethane-d4	3.684	65	222594	48.86	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 97.72%			
73) Toluene-d8	5.740	98	793360	51.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 103.60%			
95) 4-Bromofluorobenzene	8.637	95	293850	50.24	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.48%			
Target Compounds						Qvalue
3) Chloromethane	0.828	50	10562	0.13	ug/L	82
16) Acetone	1.539	43	5050	4.45	ug/L	97
35) Ethyl tert-butyl ether	2.791	59	22112	2.64	ug/L	95

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

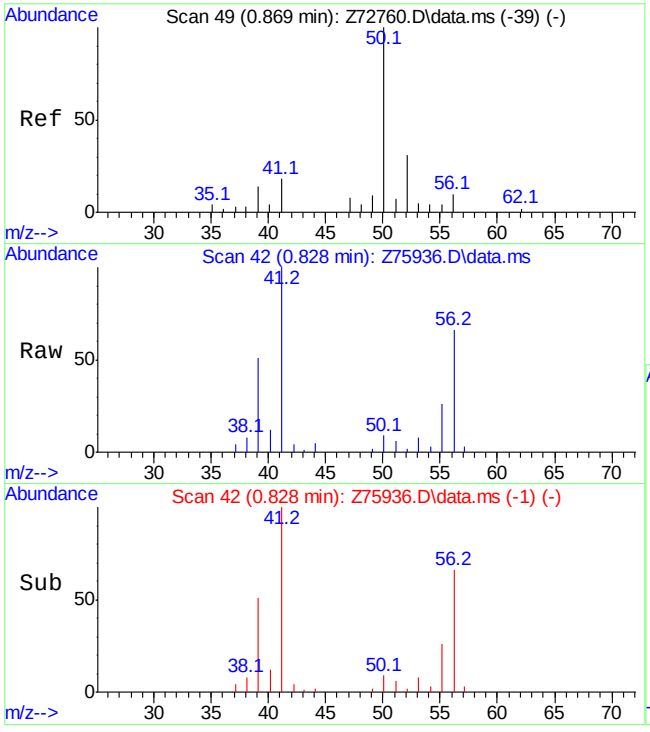
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75936.D
Acq On : 24 May 2019 10:27 am
Operator : firatt
Sample : td39499-1 comp
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 24 11:08:03 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration



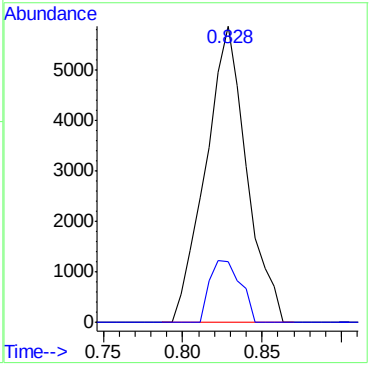
VZ6285.m Fri May 24 11:08:52 2019 Page: 2

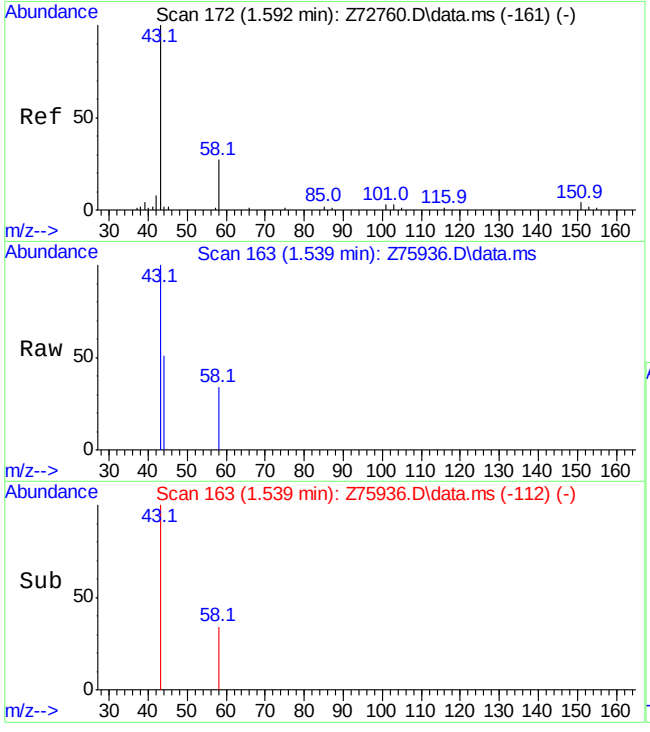


#3
Chloromethane
Concen: 0.13 ug/L
RT: 0.828 min Scan# 42
Delta R.T. -0.012 min
Lab File: Z75936.D
Acq: 24 May 2019 10:27 am

Tgt Ion: 50 Resp: 10562

Ion	Ratio	Lower	Upper
50	100		
52	20.7	0.3	60.3

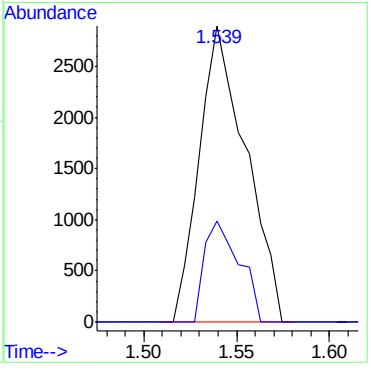


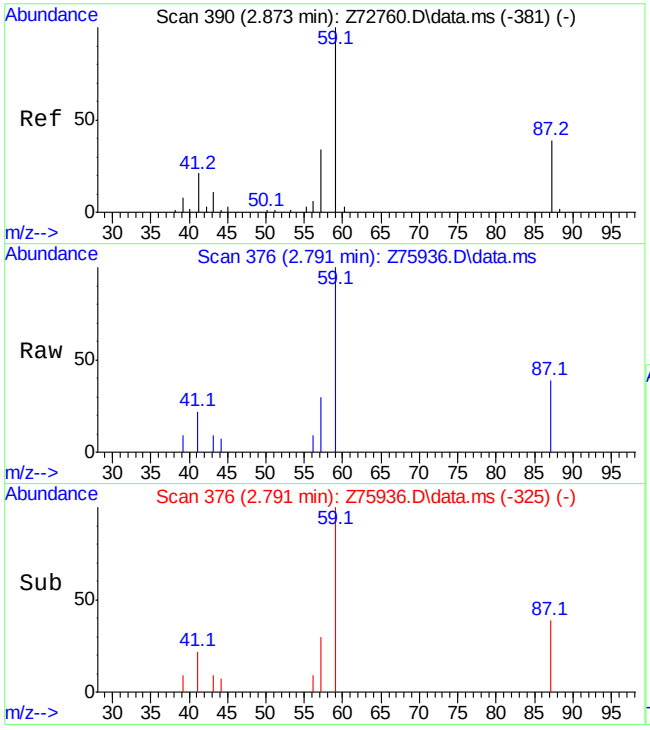


#16
Acetone
Concen: 4.45 ug/L
RT: 1.539 min Scan# 163
Delta R.T. 0.000 min
Lab File: Z75936.D
Acq: 24 May 2019 10:27 am

Tgt Ion: 43 Resp: 5050

Ion	Ratio	Lower	Upper
43	100		
58	34.3	2.8	62.8

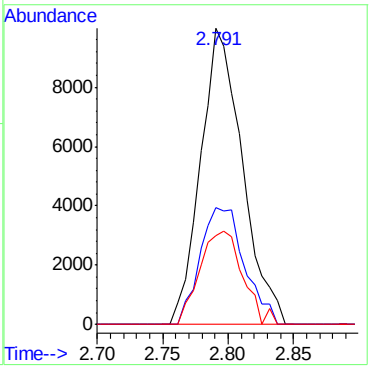




#35
Ethyl tert-butyl ether
Concen: 2.64 ug/L
RT: 2.791 min Scan# 376
Delta R.T. -0.000 min
Lab File: Z75936.D
Acq: 24 May 2019 10:27 am

Tgt Ion: 59 Resp: 22112

Ion	Ratio	Lower	Upper
59	100		
87	39.5	14.1	74.1
57	29.8	1.1	61.1



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75933.D
Acq On : 24 May 2019 9:13 am
Operator : firatt
Sample : mb
Misc : ms24756,vz6291,5,,,5,,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 24 10:18:06 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

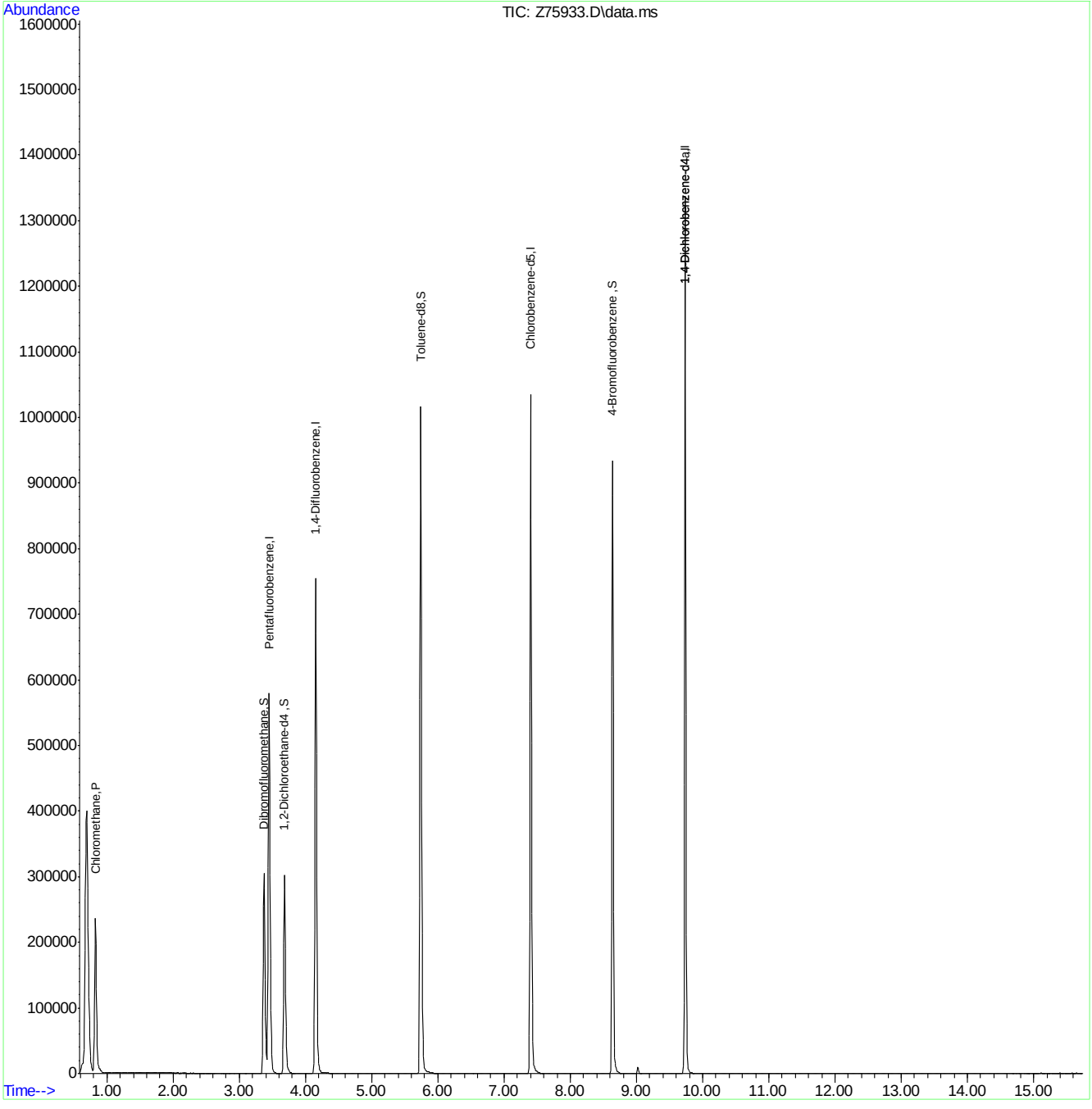
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.449	168	456220	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	674137	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	606636	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	317417	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	317417	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	194221	50.96	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 101.92%			
51) 1,2-Dichloroethane-d4	3.684	65	218495	49.54	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 99.08%			
73) Toluene-d8	5.740	98	769464	51.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.96%			
95) 4-Bromofluorobenzene	8.637	95	288822	50.32	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.64%			
Target Compounds						Qvalue
3) Chloromethane	0.828	50	11836	0.41	ug/L	83

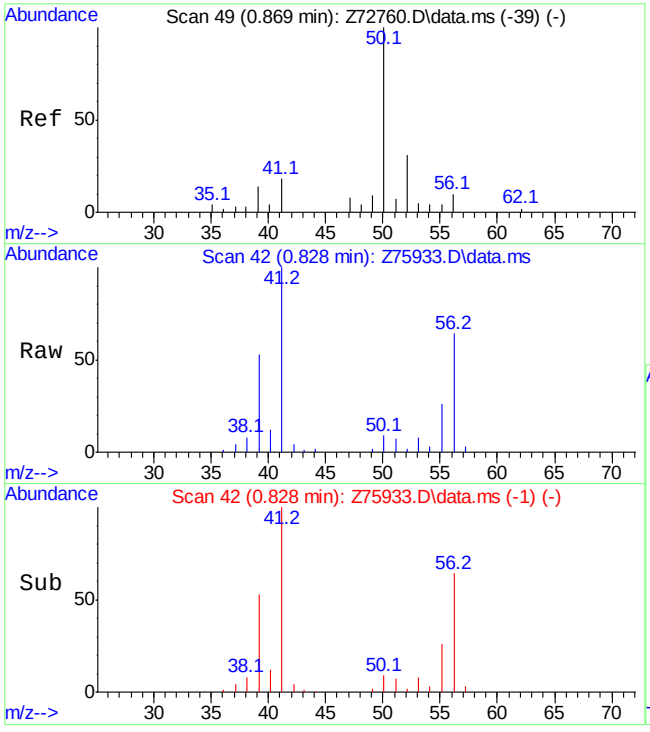
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75933.D
Acq On : 24 May 2019 9:13 am
Operator : firatt
Sample : mb
Misc : ms24756,vz6291,5,,,5,,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 24 10:18:06 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

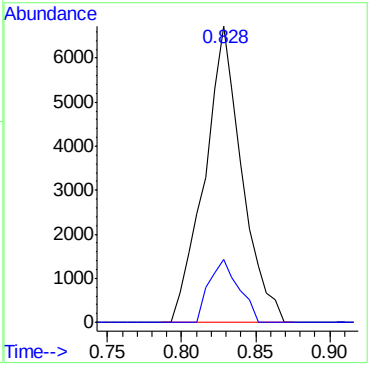




#3
Chloromethane
Concen: 0.41 ug/L
RT: 0.828 min Scan# 42
Delta R.T. -0.012 min
Lab File: Z75933.D
Acq: 24 May 2019 9:13 am

Tgt Ion: 50 Resp: 11836

Ion	Ratio	Lower	Upper
50	100		
52	21.2	0.3	60.3



7.2.1

7

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/24/19 15:22

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75931.D
Acq On : 24 May 2019 8:24 am
Operator : firatt
Sample : bs
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 08:51:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	448484	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	659391	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	593401	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	316361	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	316361	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	190897	50.95	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 101.90%			
51) 1,2-Dichloroethane-d4	3.684	65	217252	50.36	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 100.72%			
73) Toluene-d8	5.740	98	744226	50.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 101.82%			
95) 4-Bromofluorobenzene	8.637	95	285009	49.82	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 99.64%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	130303	23.07	ug/L	96
3) Chloromethane	0.834	50	179963	30.20	ug/L	99
4) Vinyl Chloride	0.887	62	129978	29.68	ug/L	98
5) 1,3-Butadiene	0.864	54	99861	30.05	ug/L	97
6) Ethylene Oxide	0.999	44	1036062	1567.52	ug/L	96
7) Bromomethane	1.022	94	89175	31.67	ug/L	96
8) Chloroethane	1.069	64	61197	27.84	ug/L	98
9) Vinyl Bromide	1.163	106	78048	26.93	ug/L	98
10) Trichlorofluoromethane	1.199	101	168839	31.08	ug/L	97
11) Ethyl Alcohol	1.351	45	59160	263.92	ug/L	98
12) Ethyl Ether	1.351	59	77035	27.06	ug/L	95
13) Acrolein	1.434	56	87332	115.81	ug/L	93
14) 1,1-Dichloroethene	1.481	61	112988	23.44	ug/L	99
15) Freon 113	1.504	101	86298	27.60	ug/L	98
16) Acetone	1.539	43	125380	115.97	ug/L	98
17) Propylene Oxide	1.392	58	23462	31.15	ug/L	91
18) Isopropyl Alcohol	1.663	45	48343	190.83	ug/L	97
19) Iodomethane	1.569	142	154434	22.54	ug/L	97
20) Methyl acetate	1.768	43	318089	120.31	ug/L	100
21) Carbon Disulfide	1.598	76	221873	28.27	ug/L	98
22) Allyl Chloride	1.727	76	43517	26.75	ug/L	91
23) Acetonitrile	1.739	40	35861	122.65	ug/L	93
24) Methylene Chloride	1.821	49	91409	23.48	ug/L	99
25) Tert Butyl Alcohol	1.974	59	120282	189.50	ug/L	97
26) trans-1,2-Dichloroethene	2.027	61	130457	28.24	ug/L	99
27) Acrylonitrile	2.045	53	214490	144.65	ug/L	98
28) Hexane	2.250	57	162271	32.41	ug/L	98
29) Methyl Tert Butyl Ether	2.045	73	249368	26.37	ug/L	95
30) 1,1-Dichloroethane	2.385	63	171066	23.86	ug/L	99
31) Vinyl acetate	2.468	43	673898	67.22	ug/L	99
33) Di-isopropyl ether	2.474	45	292706	26.10	ug/L #	83
34) Chloroprene	2.450	53	127224	24.01	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75931.D
Acq On : 24 May 2019 8:24 am
Operator : firatt
Sample : bs
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 08:51:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Ethyl tert-butyl ether	2.797	59	248795	31.16	ug/L	98
36) Ethyl Acetate	3.032	43	287986	63.86	ug/L	100
37) 2,2-Dichloropropane	2.885	77	86636	26.63	ug/L	99
38) cis-1,2-Dichloroethene	2.902	61	145444	23.77	ug/L	100
39) 2-Butanone	2.955	43	258340	147.68	ug/L	98
40) Propionitrile	3.026	54	86447	142.72	ug/L	98
41) Methacrylonitrile	3.149	41	355018	146.12	ug/L	99
42) Bromochloromethane	3.120	128	58143	24.40	ug/L	96
43) Chloroform	3.220	83	172515	24.99	ug/L	98
44) Tetrahydrofuran	3.161	42	46312	27.79	ug/L #	73
45) 1,1,1-Trichloroethane	3.343	97	138761	24.03	ug/L	99
47) Cyclohexane	3.372	56	179249	31.94	ug/L	99
48) 1,1-Dichloropropene	3.508	75	137693	26.76	ug/L	96
50) Carbon Tetrachloride	3.496	119	117001	24.46	ug/L	97
52) Isobutyl Alcohol	3.801	43	102044	299.00	ug/L	94
53) Benzene	3.707	78	413570	26.21	ug/L	96
54) 1,2-Dichloroethane	3.760	62	122267	23.20	ug/L	97
55) 2,2,4-Trimethylpentane	3.801	57	432228	32.68	ug/L	95
56) tert-amyl methyl ether	3.872	73	255774	33.61	ug/L	99
57) Crotonaldehyde	4.095	41	49750	129.07	ug/L	99
58) n-Butyl Alcohol	4.524	56	17142m	158.58	ug/L	
59) Trichloroethene	4.389	95	107382	22.62	ug/L	97
60) Methylcyclohexane	4.548	83	209288	30.60	ug/L	97
61) Methyl Methacrylate	4.847	41	93310	27.31	ug/L	99
62) 1,2-Dichloropropane	4.630	63	99904	23.81	ug/L	99
63) Dibromomethane	4.759	93	64134	21.49	ug/L	98
64) 1,4-Dioxane	4.824	88	17528	369.55	ug/L	91
65) Bromodichloromethane	4.965	83	117841	24.09	ug/L	98
66) 2-Nitropropane	5.253	41	113954	119.15	ug/L	98
67) 2-Chloroethyl vinyl ether	5.358	63	381551	281.22	ug/L	97
68) 1-Bromo-2-Chloroethane	5.270	63	147993	25.84	ug/L	100
69) Epichlorohydrin	5.405	57	55381	141.46	ug/L	92
70) 4-Methyl-2-pentanone	5.705	43	560752	134.46	ug/L	98
71) cis-1,3-Dichloropropene	5.470	75	160357	27.07	ug/L	95
74) Toluene	5.817	91	440874	25.58	ug/L	100
75) Ethyl Methacrylate	6.322	69	153236	29.66	ug/L	99
76) trans-1,3-Dichloropropene	6.152	75	133830	25.59	ug/L	99
77) 1,1,2-Trichloroethane	6.351	83	83039	23.41	ug/L	100
78) Tetrachloroethene	6.440	166	127530	22.29	ug/L	97
79) 2-hexanone	6.716	43	411212	135.68	ug/L	99
80) 1,3-Dichloropropane	6.534	76	164289	21.92	ug/L	100
81) Dibromochloromethane	6.786	129	92712	25.96	ug/L	98
82) n-Butyl Acetate	6.904	43	419226	67.47	ug/L	100
83) 1,2-Dibromoethane	6.874	107	104963	23.05	ug/L	99
84) 1-Chlorohexane	7.480	91	160034	32.17	ug/L	99
85) Chlorobenzene	7.433	112	293339	24.84	ug/L	99
86) 1,1,1,2-Tetrachloroethane	7.550	131	94733	24.77	ug/L	99
87) Ethylbenzene	7.579	91	500007	23.79	ug/L	100
88) m,p-Xylene	7.715	91	776548	48.20	ug/L	99
89) o-Xylene	8.114	91	403362	23.94	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75931.D
Acq On : 24 May 2019 8:24 am
Operator : firatt
Sample : bs
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 08:51:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	Styrene	8.143	104	327816	26.73	ug/L	99
91)	Bromoform	8.302	173	57034	22.44	ug/L	97
93)	Isopropylbenzene	8.502	105	517670	25.26	ug/L	99
94)	Cyclohexanone	8.590	55	27125	215.36	ug/L	96
96)	Bromobenzene	8.755	156	136258	22.02	ug/L	97
97)	1,1,2,2-Tetrachloroethane	8.849	83	148128	23.19	ug/L	98
98)	Trans-1,4-Dichloro-2-B...	8.907	53	26695	28.39	ug/L	90
99)	1,2,3-Trichloropropane	8.860	110	42287	23.18	ug/L	97
100)	n-Propylbenzene	8.907	91	606686	25.81	ug/L	99
101)	2-Chlorotoluene	8.960	91	347484	25.55	ug/L	99
102)	4-Chlorotoluene	9.072	91	407560	23.34	ug/L	100
103)	1,3,5-Trimethylbenzene	9.095	105	422730	25.31	ug/L	100
104)	Butyl Methacrylate	9.260	69	153136	29.82	ug/L	97
105)	alpha-Methylstyrene	9.313	118	242296	32.30	ug/L	97
106)	Pentachloroethane	9.395	167	70915	27.47	ug/L	97
107)	sec-Butylbenzene	9.595	105	569318	25.88	ug/L	99
108)	1,3-Dichlorobenzene	9.665	146	260983	25.38	ug/L	98
109)	4-Isopropyltoluene	9.747	119	483130	25.53	ug/L	99
110)	1,4-Dichlorobenzene	9.759	146	256810	24.66	ug/L	98
111)	tert-Butylbenzene	9.389	91	233697	24.14	ug/L	99
112)	Dicyclopentadiene	9.747	66	532109	35.52	ug/L	97
113)	n-Butylbenzene	10.124	91	544647	27.15	ug/L	98
114)	1,2-Dichlorobenzene	10.088	146	243731	24.62	ug/L	98
115)	1,2,4-Trimethylbenzene	9.442	105	426247	25.11	ug/L	100
116)	Benzyl Chloride	9.906	91	424949	27.73	ug/L	97
117)	p-Diethylbenzene	10.106	119	313418	29.57	ug/L	100
118)	Hexachloroethane	10.306	119	54107	27.28	ug/L	96
119)	1,2-Dibromo-3-Chloropr...	10.823	75	20636	23.51	ug/L	98
120)	1,2,4-Trichlorobenzene	11.545	180	186191	23.89	ug/L	99
121)	1,3-Diethylbenzene	10.035	119	300793	28.34	ug/L	100
122)	Hexachlorobutadiene	11.710	225	109850	28.39	ug/L	98
123)	Naphthalene	11.751	128	435101	26.16	ug/L	100
124)	1,2,3-Trichlorobenzene	11.968	180	168681	24.04	ug/L	98

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75931.D
Acq On    : 24 May 2019   8:24 am
Operator  : firatt
Sample    : bs
Misc      : ms24759,vz6291,5,,,5,,water
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: May 24 08:51:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title  : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration
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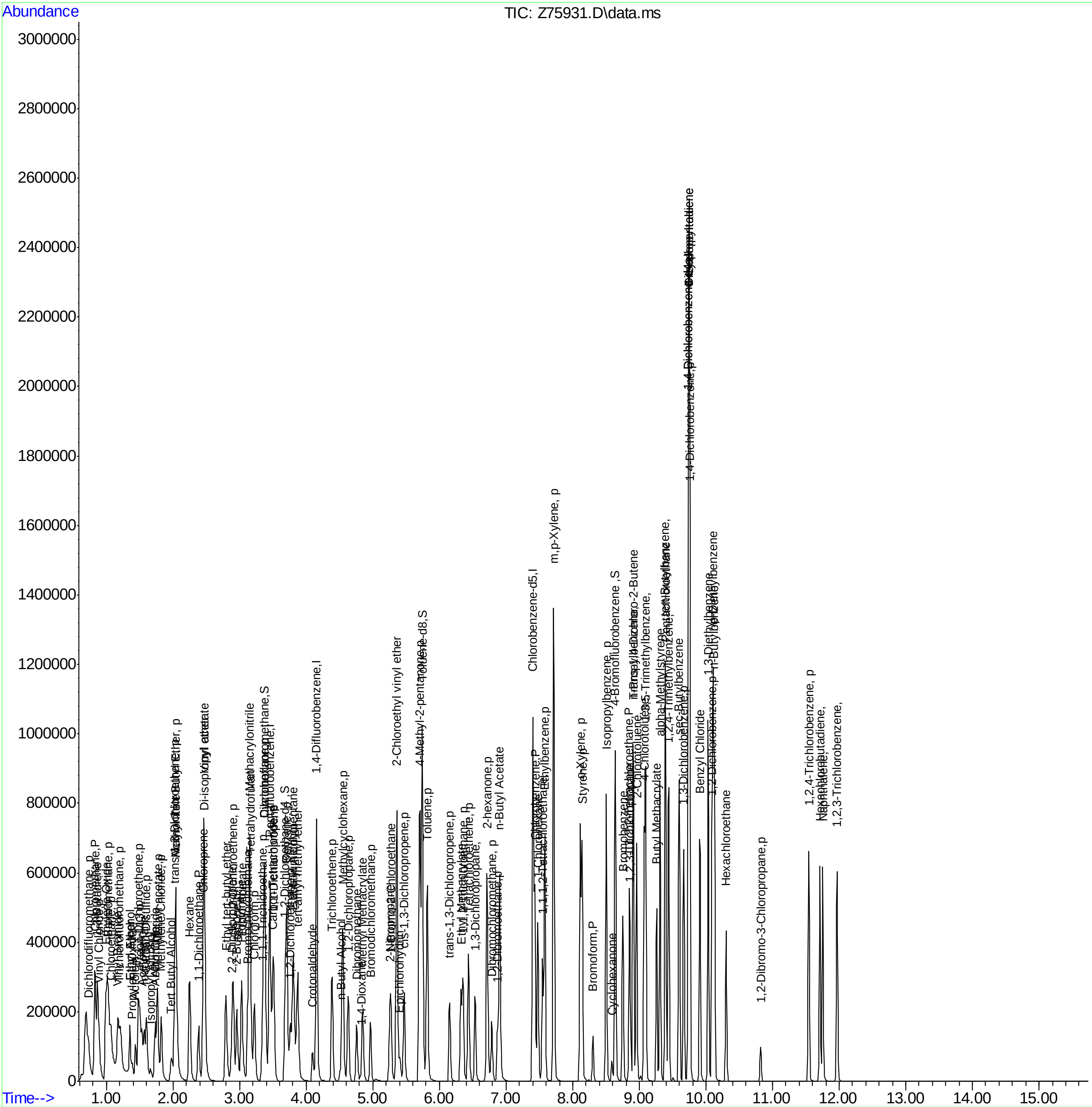


VZ6285.m Fri May 24 08:51:34 2019 Page: 4

Manual Integration Approval Summary

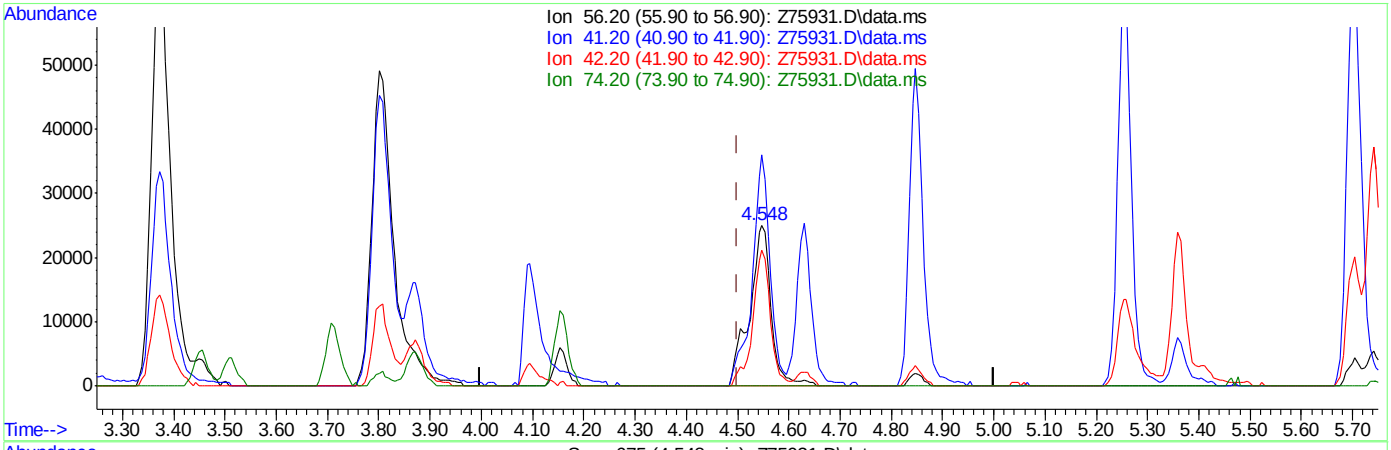
Sample Number:	VZ6291-BS	**Method:**	SW846 8260C
Lab FileID:	Z75931.D	**Analyst approved:**	05/24/19 08:49 Firat Tastan
Injection Time:	05/24/19 08:24	**Supervisor approved:**	05/24/19 15:22 John Watson

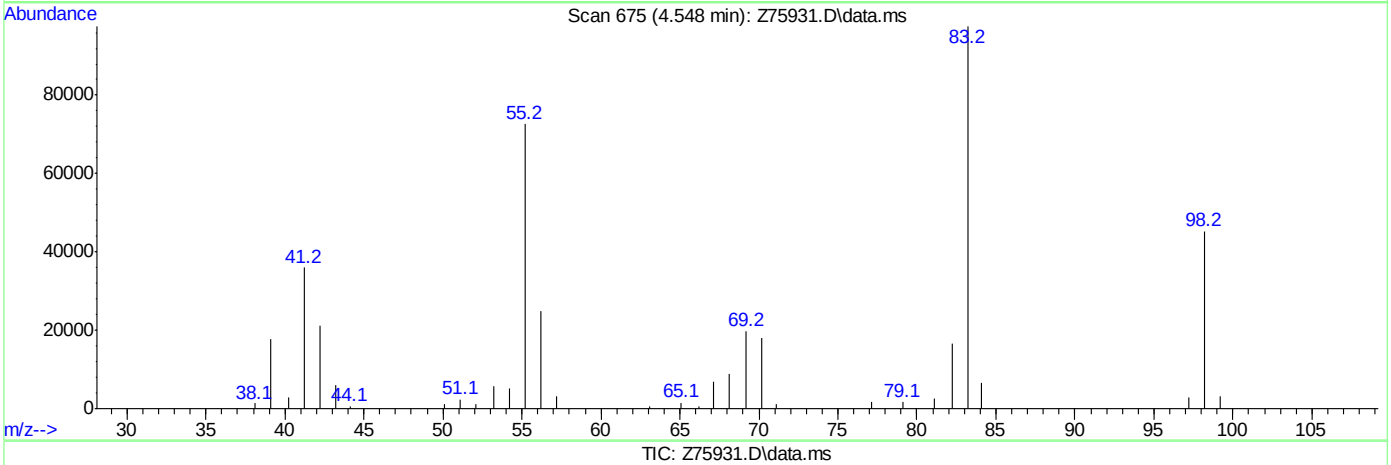
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butyl Alcohol	71-36-3		4.52	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75931.D
Acq On : 24 May 2019 8:24 am
Operator : firatt
Sample : bs
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 08:50:53 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75931.D\data.ms

(58) n-Butyl Alcohol

4.548min (+0.048) 637.32ug/L

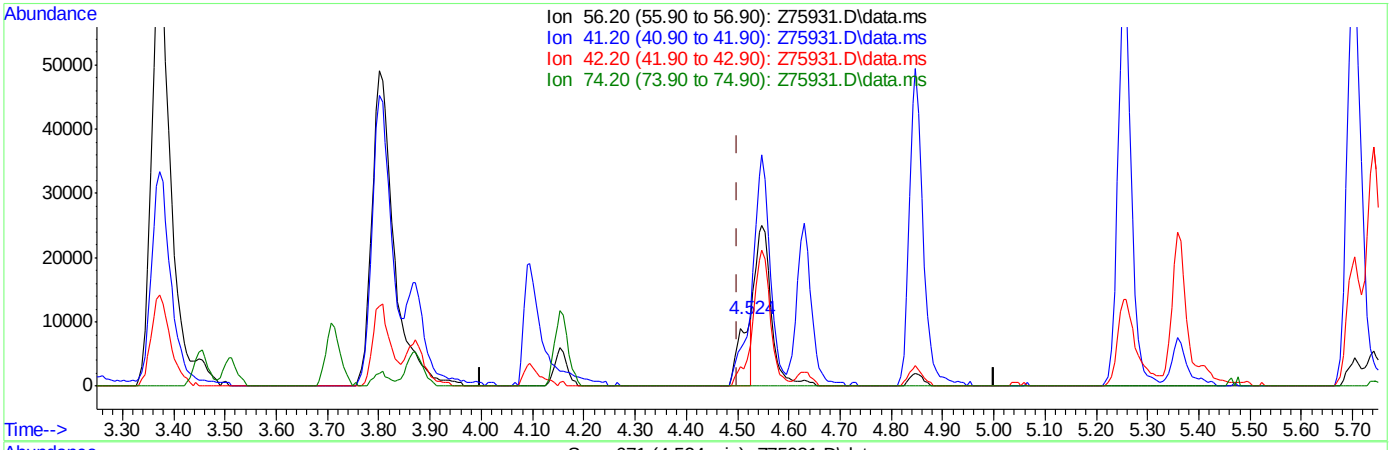
response 73807

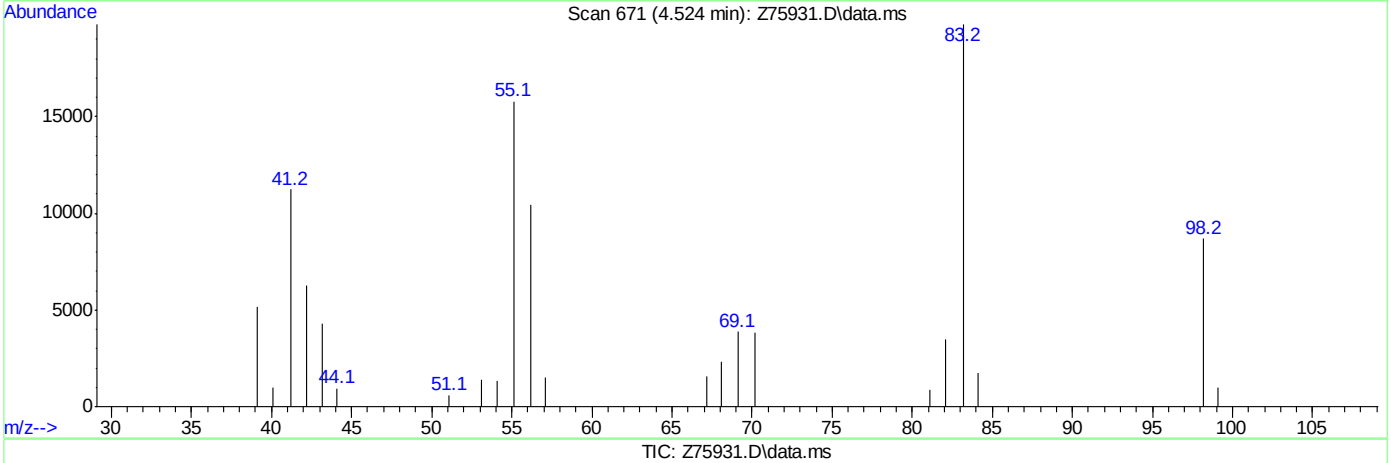
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	143.92#
42.20	28.80	84.57#
74.20	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75931.D
Acq On : 24 May 2019 8:24 am
Operator : firatt
Sample : bs
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 08:50:53 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75931.D\data.ms

(58) n-Butyl Alcohol

4.524min (+0.024) 158.58ug/L m

response 17142

Ion	Exp%	Act%
56.20	100	100
41.20	62.00	107.59#
42.20	28.80	60.22#
74.20	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/24/19 15:22

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75938.D
Acq On : 24 May 2019 11:16 am
Operator : firatt
Sample : td39541-2ms
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 12:03:43 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.449	168	508771	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	751967	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	679584	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	358613	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	358613	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	218625	51.44	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 102.88%			
51) 1,2-Dichloroethane-d4	3.684	65	237783	48.33	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 96.66%			
73) Toluene-d8	5.740	98	858442	51.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.54%			
95) 4-Bromofluorobenzene	8.637	95	324628	50.06	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	134541	21.00	ug/L	99
3) Chloromethane	0.834	50	180527	26.48	ug/L	96
4) Vinyl Chloride	0.881	62	131440	26.39	ug/L	98
5) 1,3-Butadiene	0.864	54	110315	29.27	ug/L	96
7) Bromomethane	1.016	94	90875	28.07	ug/L	97
8) Chloroethane	1.063	64	64896	25.88	ug/L	98
9) Vinyl Bromide	1.163	106	80545	24.50	ug/L	100
10) Trichlorofluoromethane	1.198	101	174239	28.10	ug/L	93
11) Ethyl Alcohol	1.351	45	60258	236.96	ug/L	91
12) Ethyl Ether	1.345	59	81017	25.09	ug/L	98
13) Acrolein	1.433	56	89286	104.37	ug/L	92
14) 1,1-Dichloroethene	1.475	61	121185	22.17	ug/L	97
15) Freon 113	1.504	101	92028	25.95	ug/L	98
16) Acetone	1.533	43	116337	94.86	ug/L	96
18) Isopropyl Alcohol	1.663	45	39140	136.19	ug/L	93
19) Iodomethane	1.569	142	154318	19.85	ug/L	99
20) Methyl acetate	1.762	43	278111	92.72	ug/L	99
21) Carbon Disulfide	1.598	76	234870	26.38	ug/L	99
22) Allyl Chloride	1.727	76	41318	22.39	ug/L	96
23) Acetonitrile	1.727	40	31649	95.42	ug/L #	61
24) Methylene Chloride	1.821	49	87146	19.74	ug/L	99
25) Tert Butyl Alcohol	1.968	59	101917	141.54	ug/L	97
26) trans-1,2-Dichloroethene	2.021	61	127699	24.29	ug/L	97
27) Acrylonitrile	2.039	53	193941	115.30	ug/L	96
28) Hexane	2.244	57	161523	28.44	ug/L	98
29) Methyl Tert Butyl Ether	2.039	73	238144	22.20	ug/L	98
30) 1,1-Dichloroethane	2.379	63	165839	20.39	ug/L	99
31) Vinyl acetate	2.462	43	610442	53.68	ug/L	99
33) Di-isopropyl ether	2.468	45	281216	22.11	ug/L #	83
34) Chloroprene	2.450	53	123488	20.55	ug/L	95
35) Ethyl tert-butyl ether	2.791	59	232615	25.69	ug/L	99
36) Ethyl Acetate	3.026	43	256869	50.21	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75938.D
Acq On : 24 May 2019 11:16 am
Operator : firatt
Sample : td39541-2ms
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 12:03:43 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-Dichloropropane	2.879	77	83366	22.59	ug/L	97
38) cis-1,2-Dichloroethene	2.902	61	138197	19.91	ug/L	98
39) 2-Butanone	2.955	43	230880	116.34	ug/L	99
40) Propionitrile	3.020	54	76797	111.77	ug/L	98
41) Methacrylonitrile	3.149	41	324460	117.72	ug/L	98
42) Bromochloromethane	3.120	128	57034	21.10	ug/L	95
43) Chloroform	3.220	83	164522	20.88	ug/L	99
44) Tetrahydrofuran	3.161	42	41888	22.15	ug/L	94
45) 1,1,1-Trichloroethane	3.343	97	133116	20.32	ug/L	99
47) Cyclohexane	3.372	56	180209	28.31	ug/L	99
48) 1,1-Dichloropropene	3.508	75	134232	22.92	ug/L	99
50) Carbon Tetrachloride	3.490	119	108270	19.85	ug/L	99
52) Isobutyl Alcohol	3.801	43	90337	232.11	ug/L	86
53) Benzene	3.707	78	399810	22.13	ug/L	98
54) 1,2-Dichloroethane	3.760	62	267937	45.11	ug/L	98
55) 2,2,4-Trimethylpentane	3.801	57	416239	27.60	ug/L	93
56) tert-amyl methyl ether	3.866	73	243884	28.11	ug/L	97
57) Crotonaldehyde	4.089	41	42790	97.35	ug/L	98
58) n-Butyl Alcohol	4.518	56	10772m	87.92	ug/L	
59) Trichloroethene	4.383	95	102444	18.92	ug/L	96
60) Methylcyclohexane	4.548	83	205144	26.30	ug/L	99
61) Methyl Methacrylate	4.841	41	86731	22.26	ug/L	97
62) 1,2-Dichloropropane	4.624	63	96255	20.12	ug/L	97
63) Dibromomethane	4.753	93	61257	18.00	ug/L	95
64) 1,4-Dioxane	4.818	88	12255	226.57	ug/L	94
65) Bromodichloromethane	4.965	83	109924	19.70	ug/L	99
66) 2-Nitropropane	5.253	41	97892	89.75	ug/L	98
68) 1-Bromo-2-Chloroethane	5.270	63	145115	22.13	ug/L	99
69) Epichlorohydrin	5.405	57	33631	75.33	ug/L	96
70) 4-Methyl-2-pentanone	5.699	43	532032	111.04	ug/L	98
71) cis-1,3-Dichloropropene	5.470	75	147920	21.89	ug/L	97
74) Toluene	5.817	91	421669	21.24	ug/L	99
75) Ethyl Methacrylate	6.322	69	144024	24.34	ug/L	97
76) trans-1,3-Dichloropropene	6.152	75	123708	20.85	ug/L	98
77) 1,1,2-Trichloroethane	6.351	83	77257	19.02	ug/L	95
78) Tetrachloroethene	6.434	166	121939	18.61	ug/L	95
79) 2-hexanone	6.710	43	370740	106.81	ug/L	100
80) 1,3-Dichloropropane	6.533	76	155605	18.13	ug/L	99
81) Dibromochloromethane	6.786	129	86477	21.14	ug/L	99
82) n-Butyl Acetate	6.904	43	376016	52.84	ug/L	99
83) 1,2-Dibromoethane	6.874	107	97074	18.61	ug/L	99
84) 1-Chlorohexane	7.479	91	151313	26.56	ug/L	98
85) Chlorobenzene	7.432	112	280298	20.65	ug/L	100
86) 1,1,1,2-Tetrachloroethane	7.550	131	88799	20.28	ug/L	99
87) Ethylbenzene	7.579	91	482557	20.05	ug/L	98
88) m,p-Xylene	7.714	91	737738	39.98	ug/L	99
89) o-Xylene	8.114	91	377867	19.58	ug/L	100
90) Styrene	8.143	104	308435	21.96	ug/L	99
91) Bromoform	8.302	173	50666	17.63	ug/L	99
93) Isopropylbenzene	8.502	105	487312	20.98	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75938.D
Acq On : 24 May 2019 11:16 am
Operator : firatt
Sample : td39541-2ms
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 12:03:43 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94)	Cyclohexanone	8.590	55	12166	91.47 ug/L	98
96)	Bromobenzene	8.754	156	127763	18.21 ug/L	99
97)	1,1,2,2-Tetrachloroethane	8.848	83	137176	18.95 ug/L	99
98)	Trans-1,4-Dichloro-2-B...	8.907	53	20906	20.23 ug/L	89
99)	1,2,3-Trichloropropane	8.860	110	39002	18.78 ug/L	98
100)	n-Propylbenzene	8.907	91	570916	21.43 ug/L	98
101)	2-Chlorotoluene	8.960	91	328869	21.22 ug/L	100
102)	4-Chlorotoluene	9.072	91	387428	19.58 ug/L	100
103)	1,3,5-Trimethylbenzene	9.095	105	398858	21.07 ug/L	99
104)	Butyl Methacrylate	9.260	69	142735	24.80 ug/L	98
105)	alpha-Methylstyrene	9.313	118	226571	26.65 ug/L	96
106)	Pentachloroethane	9.395	167	65207	22.29 ug/L	99
107)	sec-Butylbenzene	9.601	105	539983	21.65 ug/L	99
108)	1,3-Dichlorobenzene	9.665	146	245195	20.97 ug/L	97
109)	4-Isopropyltoluene	9.753	119	457825	21.34 ug/L	99
110)	1,4-Dichlorobenzene	9.759	146	244628	20.61 ug/L	99
111)	tert-Butylbenzene	9.389	91	221902	20.23 ug/L	97
112)	Dicyclopentadiene	9.747	66	506797	29.60 ug/L	98
113)	n-Butylbenzene	10.129	91	514386	22.62 ug/L	100
114)	1,2-Dichlorobenzene	10.088	146	230653	20.51 ug/L	99
115)	1,2,4-Trimethylbenzene	9.442	105	401592	20.87 ug/L	100
116)	Benzyl Chloride	9.906	91	367594	21.61 ug/L	96
117)	p-Diethylbenzene	10.106	119	295534	24.59 ug/L	99
118)	Hexachloroethane	10.306	119	49715	22.36 ug/L	91
119)	1,2-Dibromo-3-Chloropr...	10.823	75	17987	18.35 ug/L	97
120)	1,2,4-Trichlorobenzene	11.545	180	173228	19.61 ug/L	99
121)	1,3-Diethylbenzene	10.035	119	283680	23.57 ug/L	99
122)	Hexachlorobutadiene	11.710	225	100673	22.94 ug/L	99
123)	Naphthalene	11.751	128	384562	20.40 ug/L	98
124)	1,2,3-Trichlorobenzene	11.968	180	153405	19.29 ug/L	97

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

7.4.1

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75938.D
Acq On    : 24 May 2019  11:16 am
Operator  : firatt
Sample    : td39541-2ms
Misc      : ms24762,vz6291,5,,,5,,water
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: May 24 12:03:43 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title  : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration
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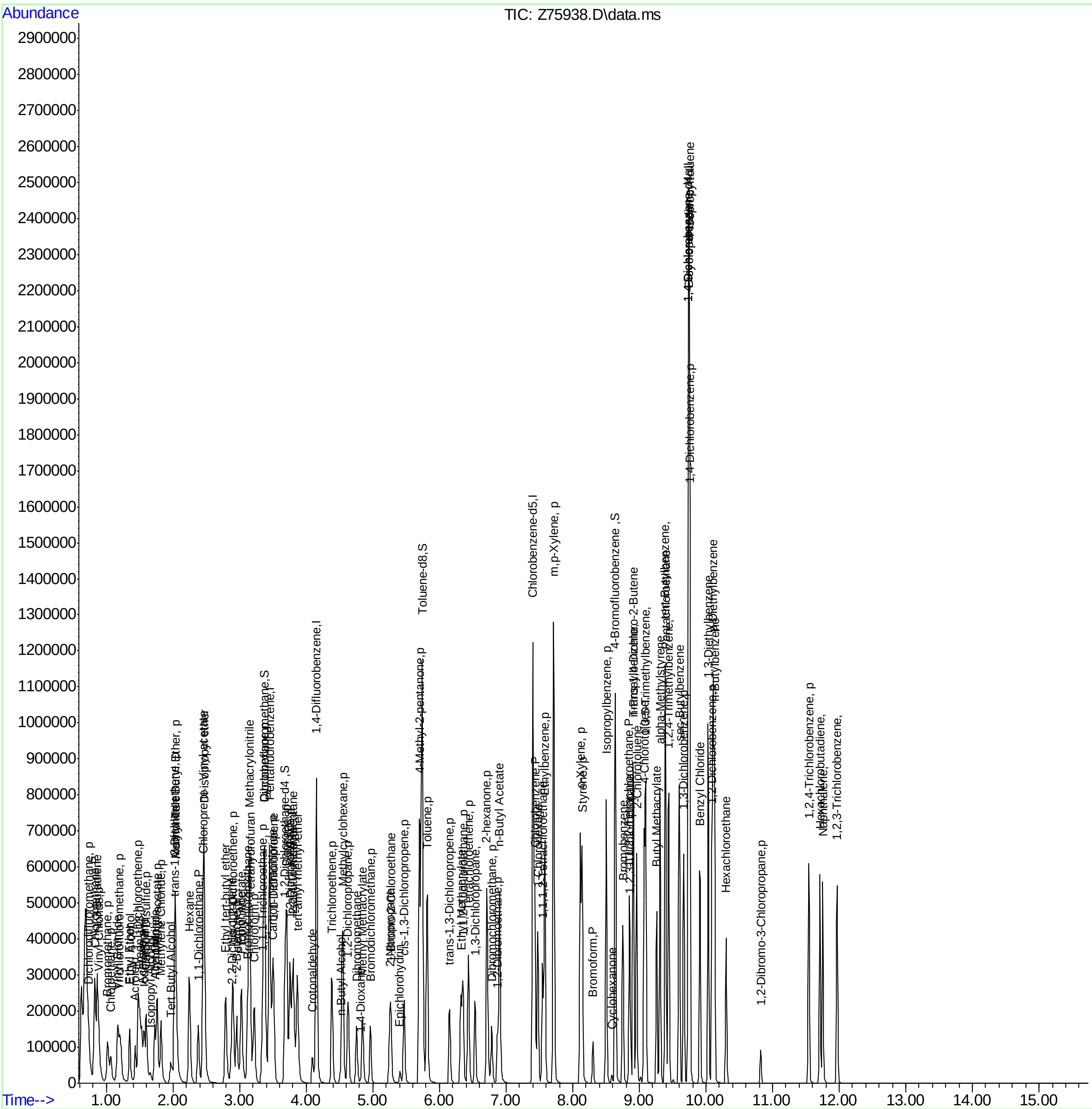


Manual Integration Approval Summary

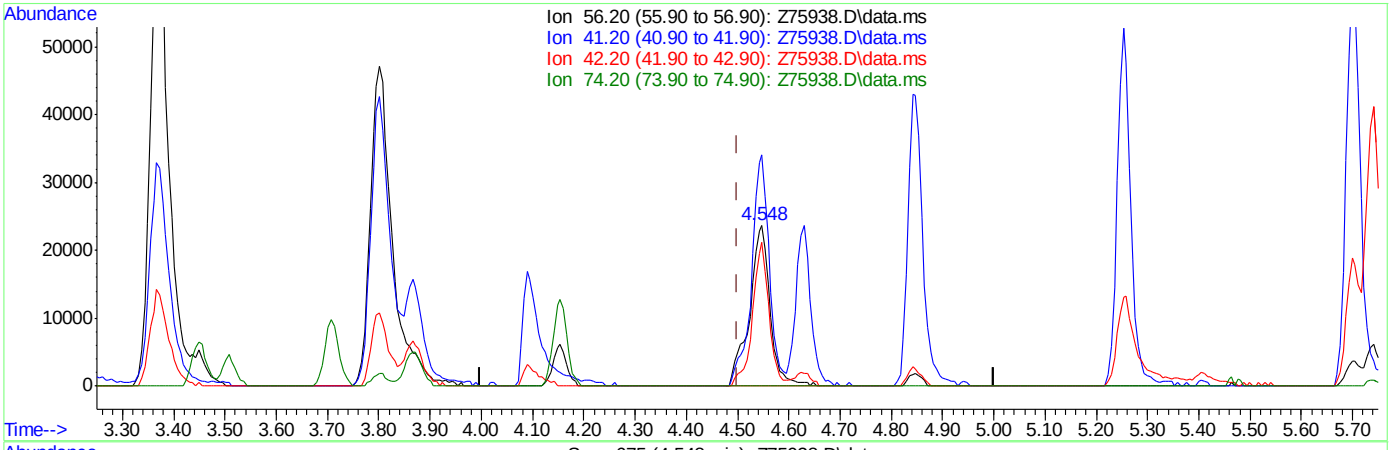
Sample Number:	TD39541-2MS	**Method:**	SW846 8260C
Lab FileID:	Z75938.D	**Analyst approved:**	05/24/19 12:02 Firat Tastan
Injection Time:	05/24/19 11:16	**Supervisor approved:**	05/24/19 15:22 John Watson

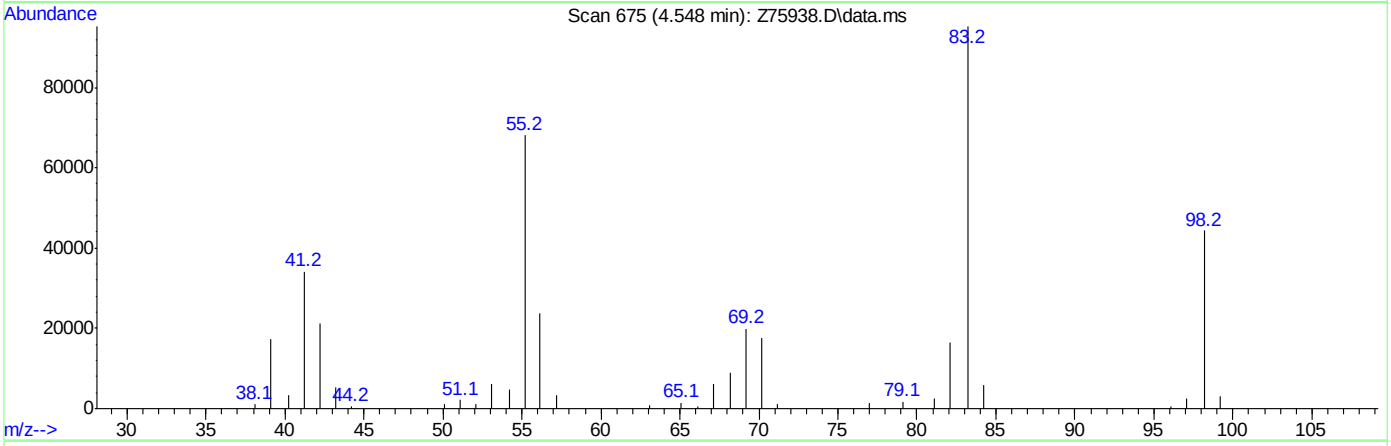
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butyl Alcohol	71-36-3		4.52	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75938.D
Acq On : 24 May 2019 11:16 am
Operator : firatt
Sample : td39541-2ms
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 11:42:41 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75938.D\data.ms

(58) n-Butyl Alcohol

4.548min (+0.048) 510.17ug/L

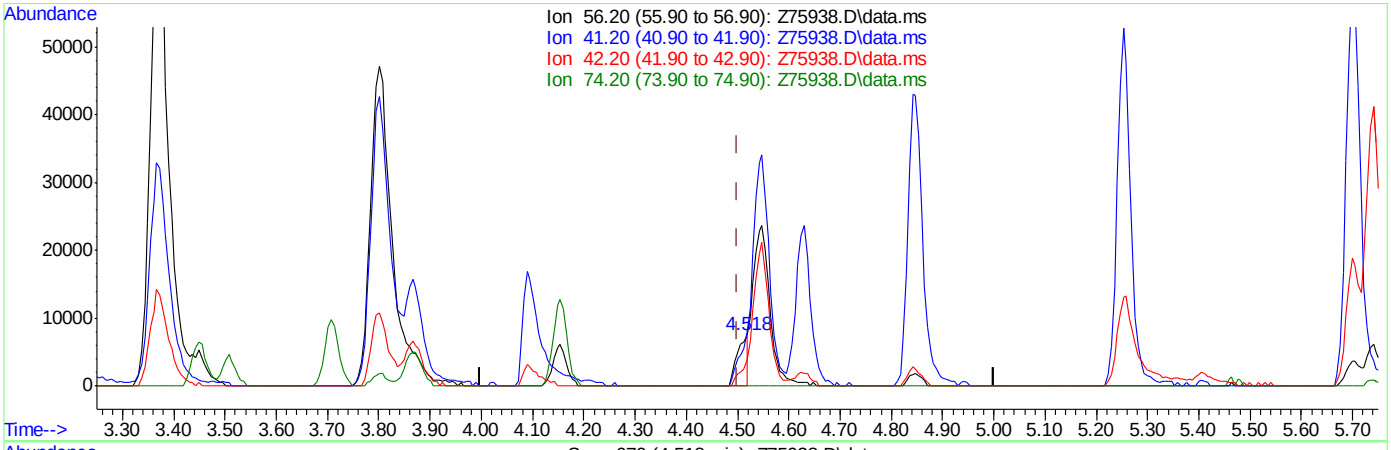
response 66130

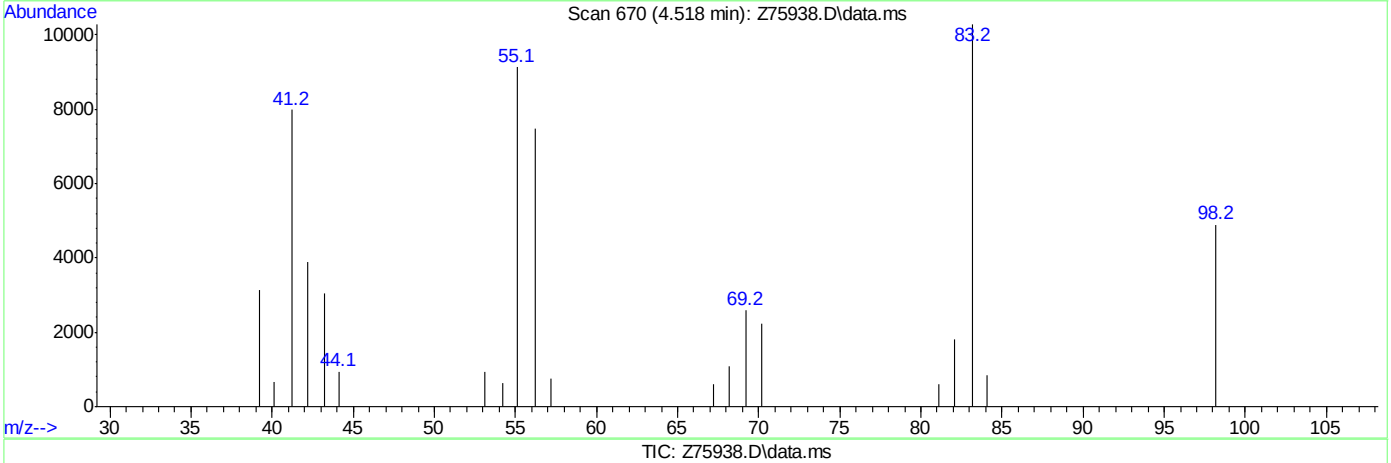
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	143.98#
42.20	28.80	89.74#
74.20	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75938.D
Acq On : 24 May 2019 11:16 am
Operator : firatt
Sample : td39541-2ms
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 11:42:41 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75938.D\data.ms

(58) n-Butyl Alcohol

4.518min (+0.018) 87.92ug/L m

response 10772

Ion	Exp%	Act%
56.20	100	100
41.20	62.00	106.56#
42.20	28.80	51.86
74.20	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/24/19 15:22

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75939.D
Acq On : 24 May 2019 11:41 am
Operator : firatt
Sample : td39541-2msd
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 12:03:25 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.449	168	530337	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	786306	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	704453	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	366819	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	366819	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	226969	51.23	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 102.46%			
51) 1,2-Dichloroethane-d4	3.684	65	243731	47.38	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 94.76%			
73) Toluene-d8	5.740	98	892754	51.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.88%			
95) 4-Bromofluorobenzene	8.637	95	335259	50.54	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 101.08%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.728	85	133470	19.98	ug/L	94
3) Chloromethane	0.828	50	182238	25.59	ug/L	97
4) Vinyl Chloride	0.881	62	129853	24.98	ug/L	99
5) 1,3-Butadiene	0.858	54	102404	26.06	ug/L	99
7) Bromomethane	1.016	94	91815	27.10	ug/L	98
8) Chloroethane	1.063	64	65246	24.88	ug/L	98
9) Vinyl Bromide	1.163	106	75766	22.11	ug/L	98
10) Trichlorofluoromethane	1.193	101	174779	26.97	ug/L	94
11) Ethyl Alcohol	1.345	45	60626	228.71	ug/L	92
12) Ethyl Ether	1.345	59	84478	25.10	ug/L	96
13) Acrolein	1.434	56	87320	97.92	ug/L	91
14) 1,1-Dichloroethene	1.475	61	117035	20.54	ug/L	99
15) Freon 113	1.504	101	89888	24.31	ug/L	96
16) Acetone	1.533	43	116399	91.05	ug/L	99
18) Isopropyl Alcohol	1.657	45	38045	127.00	ug/L	96
19) Iodomethane	1.563	142	146418	18.07	ug/L	99
20) Methyl acetate	1.763	43	274423	87.77	ug/L	98
21) Carbon Disulfide	1.598	76	222593	23.99	ug/L	100
22) Allyl Chloride	1.721	76	40856	21.24	ug/L	91
23) Acetonitrile	1.733	40	31230	90.33	ug/L	94
24) Methylene Chloride	1.815	49	84665	18.39	ug/L	97
25) Tert Butyl Alcohol	1.968	59	98386	131.08	ug/L	99
26) trans-1,2-Dichloroethene	2.021	61	121196	22.07	ug/L	97
27) Acrylonitrile	2.039	53	190932	108.89	ug/L	99
28) Hexane	2.244	57	151888	25.66	ug/L	99
29) Methyl Tert Butyl Ether	2.039	73	237794	21.27	ug/L	97
30) 1,1-Dichloroethane	2.379	63	159631	18.83	ug/L	99
31) Vinyl acetate	2.462	43	601810	50.77	ug/L	99
33) Di-isopropyl ether	2.468	45	275471	20.77	ug/L #	83
34) Chloroprene	2.450	53	117418	18.74	ug/L	95
35) Ethyl tert-butyl ether	2.791	59	239194	25.34	ug/L	98
36) Ethyl Acetate	3.026	43	251513	47.16	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75939.D
Acq On : 24 May 2019 11:41 am
Operator : firatt
Sample : td39541-2msd
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 12:03:25 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-Dichloropropane	2.879	77	81834	21.27	ug/L		98
38) cis-1,2-Dichloroethene	2.897	61	132986	18.38	ug/L		99
39) 2-Butanone	2.955	43	225285	108.91	ug/L		96
40) Propionitrile	3.020	54	76269	106.49	ug/L		98
41) Methacrylonitrile	3.149	41	321278	111.82	ug/L		98
42) Bromochloromethane	3.120	128	54883	19.48	ug/L		94
43) Chloroform	3.220	83	160194	19.46	ug/L		98
44) Tetrahydrofuran	3.155	42	42116	21.37	ug/L	#	45
45) 1,1,1-Trichloroethane	3.343	97	129557	18.97	ug/L		97
47) Cyclohexane	3.367	56	173502	26.15	ug/L		98
48) 1,1-Dichloropropene	3.508	75	128418	21.00	ug/L		98
50) Carbon Tetrachloride	3.490	119	106757	18.72	ug/L		99
52) Isobutyl Alcohol	3.796	43	90344	221.99	ug/L		94
53) Benzene	3.707	78	381935	20.16	ug/L		98
54) 1,2-Dichloroethane	3.754	62	268866	43.25	ug/L		98
55) 2,2,4-Trimethylpentane	3.801	57	396508	25.14	ug/L		91
56) tert-amyl methyl ether	3.866	73	245345	27.04	ug/L		100
57) Crotonaldehyde	4.095	41	41876	91.11	ug/L		95
58) n-Butyl Alcohol	4.518	56	10452m	81.59	ug/L		
59) Trichloroethene	4.383	95	98277	17.36	ug/L		98
60) Methylcyclohexane	4.548	83	197122	24.17	ug/L		98
61) Methyl Methacrylate	4.847	41	86637	21.26	ug/L		99
62) 1,2-Dichloropropane	4.630	63	94245	18.84	ug/L		95
63) Dibromomethane	4.753	93	60238	16.93	ug/L		94
64) 1,4-Dioxane	4.830	88	11401	201.58	ug/L		91
65) Bromodichloromethane	4.965	83	108205	18.55	ug/L		100
66) 2-Nitropropane	5.253	41	99405	87.16	ug/L		99
68) 1-Bromo-2-Chloroethane	5.270	63	140002	20.38	ug/L		99
69) Epichlorohydrin	5.411	57	31462	67.39	ug/L		97
70) 4-Methyl-2-pentanone	5.699	43	527102	104.98	ug/L		97
71) cis-1,3-Dichloropropene	5.470	75	145442	20.59	ug/L		99
74) Toluene	5.817	91	411455	19.96	ug/L		99
75) Ethyl Methacrylate	6.322	69	143590	23.41	ug/L		97
76) trans-1,3-Dichloropropene	6.152	75	121967	19.87	ug/L		98
77) 1,1,2-Trichloroethane	6.351	83	80039	19.01	ug/L		97
78) Tetrachloroethene	6.434	166	117753	17.33	ug/L		97
79) 2-hexanone	6.710	43	368094	102.31	ug/L		99
80) 1,3-Dichloropropane	6.534	76	155000	17.42	ug/L		99
81) Dibromochloromethane	6.786	129	83530	19.70	ug/L		99
82) n-Butyl Acetate	6.904	43	374221	50.73	ug/L		98
83) 1,2-Dibromoethane	6.874	107	98589	18.24	ug/L		99
84) 1-Chlorohexane	7.474	91	144438	24.46	ug/L		97
85) Chlorobenzene	7.432	112	271043	19.23	ug/L		99
86) 1,1,1,2-Tetrachloroethane	7.550	131	84913	18.70	ug/L		97
87) Ethylbenzene	7.579	91	463702	18.59	ug/L		99
88) m,p-Xylene	7.715	91	710610	37.15	ug/L		100
89) o-Xylene	8.114	91	366605	18.33	ug/L		100
90) Styrene	8.138	104	298540	20.51	ug/L		98
91) Bromoform	8.302	173	49668	16.72	ug/L		95
93) Isopropylbenzene	8.502	105	466686	19.64	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75939.D
Acq On : 24 May 2019 11:41 am
Operator : firatt
Sample : td39541-2msd
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 12:03:25 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

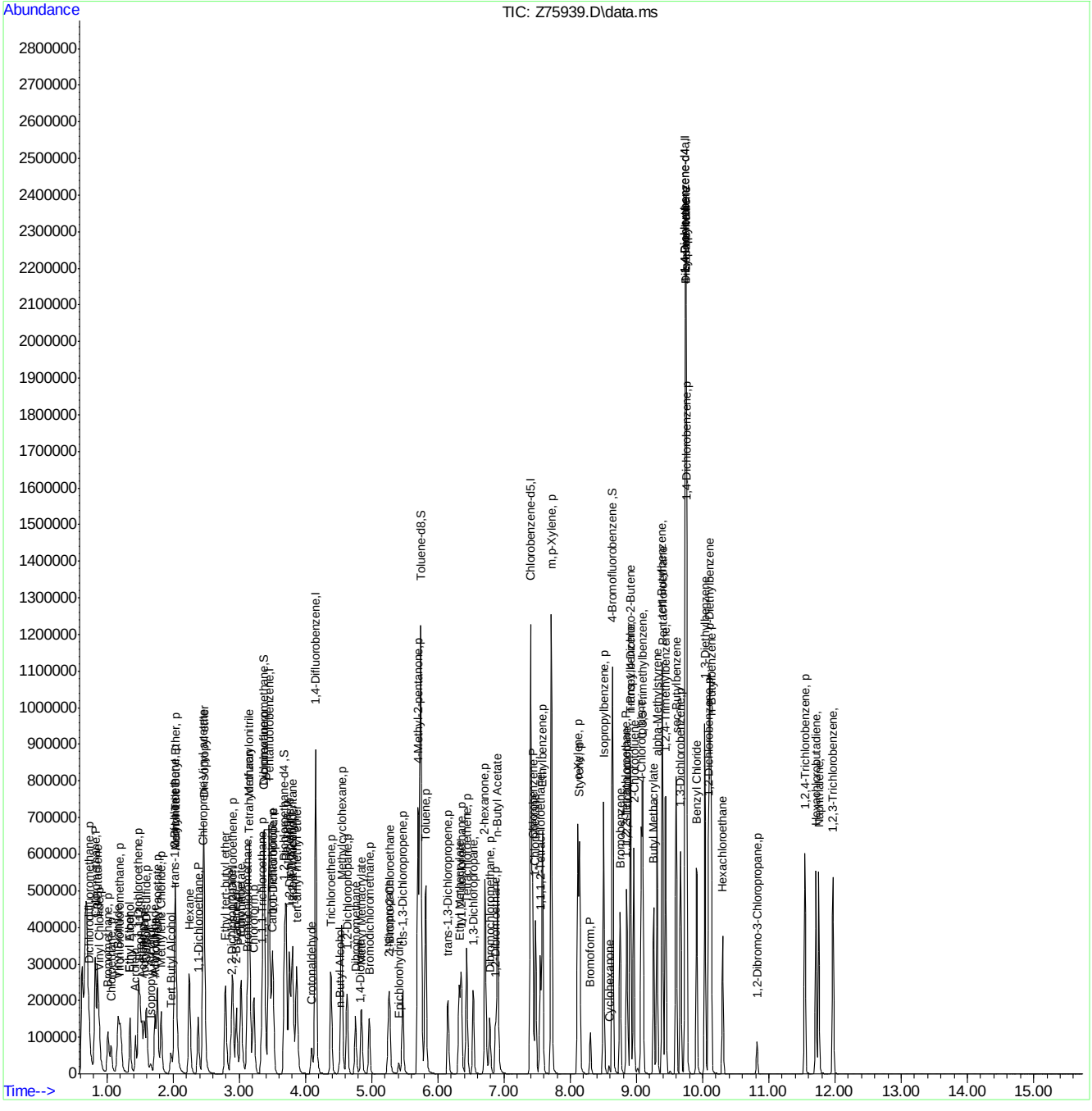
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94)	Cyclohexanone	8.590	55	11772	87.01 ug/L	95
96)	Bromobenzene	8.754	156	123929	17.27 ug/L	98
97)	1,1,2,2-Tetrachloroethane	8.848	83	134897	18.22 ug/L	100
98)	Trans-1,4-Dichloro-2-B...	8.907	53	18453	17.71 ug/L	91
99)	1,2,3-Trichloropropane	8.854	110	37774	17.77 ug/L	91
100)	n-Propylbenzene	8.907	91	547128	20.08 ug/L	98
101)	2-Chlorotoluene	8.960	91	316335	19.92 ug/L	99
102)	4-Chlorotoluene	9.072	91	373429	18.45 ug/L	100
103)	1,3,5-Trimethylbenzene	9.095	105	382379	19.75 ug/L	99
104)	Butyl Methacrylate	9.260	69	138811	23.64 ug/L	96
105)	alpha-Methylstyrene	9.313	118	213314	24.53 ug/L	97
106)	Pentachloroethane	9.395	167	63259	21.14 ug/L	98
107)	sec-Butylbenzene	9.601	105	517237	20.28 ug/L	100
108)	1,3-Dichlorobenzene	9.665	146	236761	19.77 ug/L	98
109)	4-Isopropyltoluene	9.747	119	434637	19.81 ug/L	99
110)	1,4-Dichlorobenzene	9.759	146	234251	19.25 ug/L	99
111)	tert-Butylbenzene	9.389	91	215892	19.24 ug/L	99
112)	Dicyclopentadiene	9.747	66	478704	27.23 ug/L	97
113)	n-Butylbenzene	10.129	91	491795	21.14 ug/L	99
114)	1,2-Dichlorobenzene	10.088	146	224316	19.48 ug/L	99
115)	1,2,4-Trimethylbenzene	9.442	105	385390	19.58 ug/L	99
116)	Benzyl Chloride	9.906	91	355589	20.53 ug/L	97
117)	p-Diethylbenzene	10.106	119	283176	23.04 ug/L	99
118)	Hexachloroethane	10.300	119	47034	20.76 ug/L	89
119)	1,2-Dibromo-3-Chloropr...	10.823	75	17787	17.77 ug/L	95
120)	1,2,4-Trichlorobenzene	11.545	180	169002	18.70 ug/L	99
121)	1,3-Diethylbenzene	10.035	119	272220	22.12 ug/L	99
122)	Hexachlorobutadiene	11.710	225	99351	22.12 ug/L	99
123)	Naphthalene	11.751	128	384659	19.95 ug/L	99
124)	1,2,3-Trichlorobenzene	11.968	180	152576	18.76 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75939.D
Acq On : 24 May 2019 11:41 am
Operator : firatt
Sample : td39541-2msd
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 12:03:25 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration



Manual Integration Approval Summary

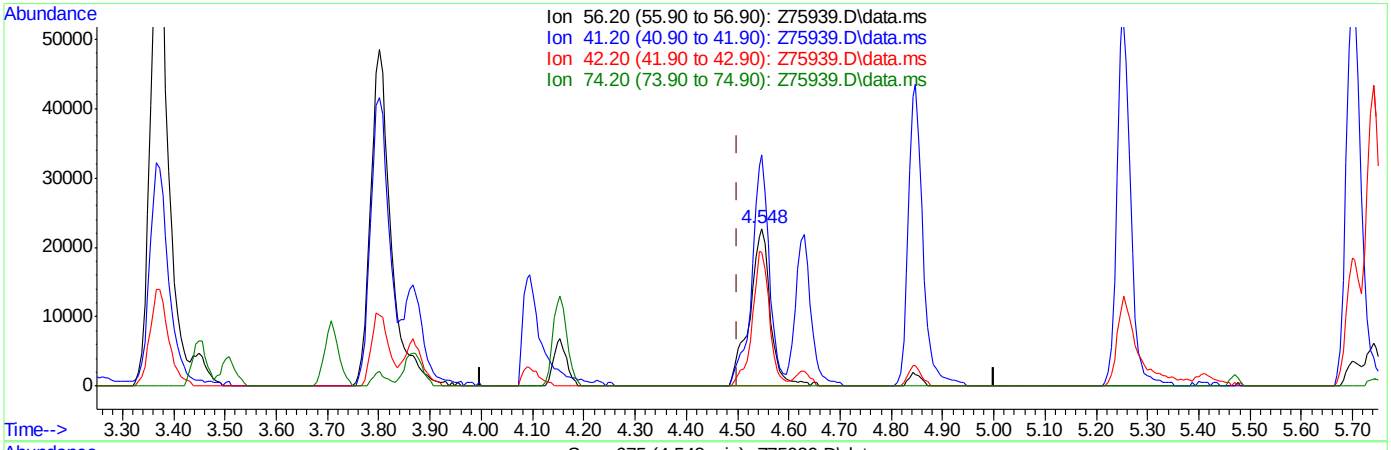
Sample Number:	TD39541-2MSD	**Method:**	SW846 8260C
Lab FileID:	Z75939.D	**Analyst approved:**	05/24/19 12:02 Firat Tastan
Injection Time:	05/24/19 11:41	**Supervisor approved:**	05/24/19 15:22 John Watson

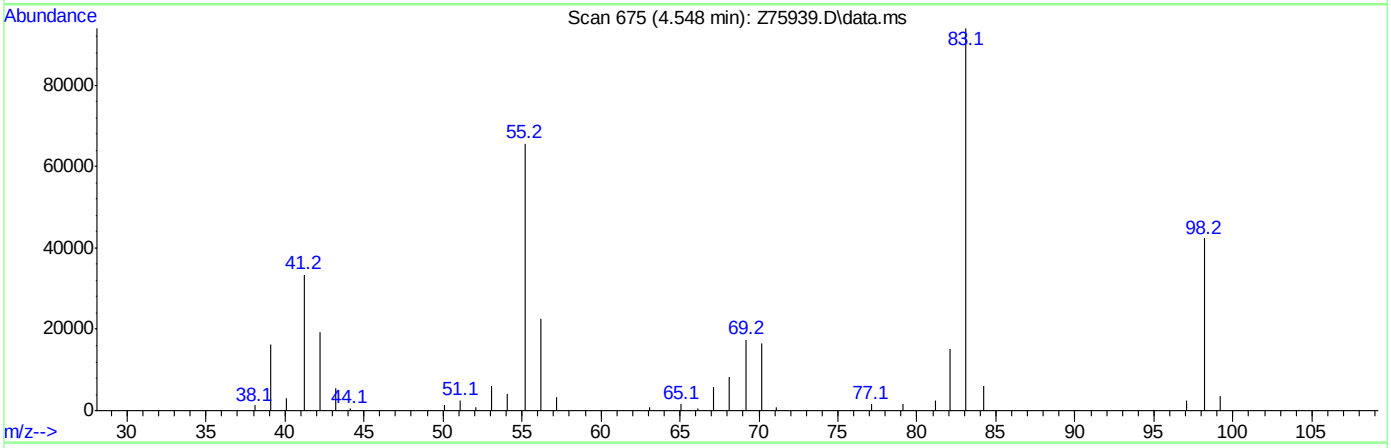
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butyl Alcohol	71-36-3		4.52	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75939.D
Acq On : 24 May 2019 11:41 am
Operator : firatt
Sample : td39541-2msd
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 12:02:28 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75939.D\data.ms

(58) n-Butyl Alcohol

4.548min (+0.048) 470.47ug/L

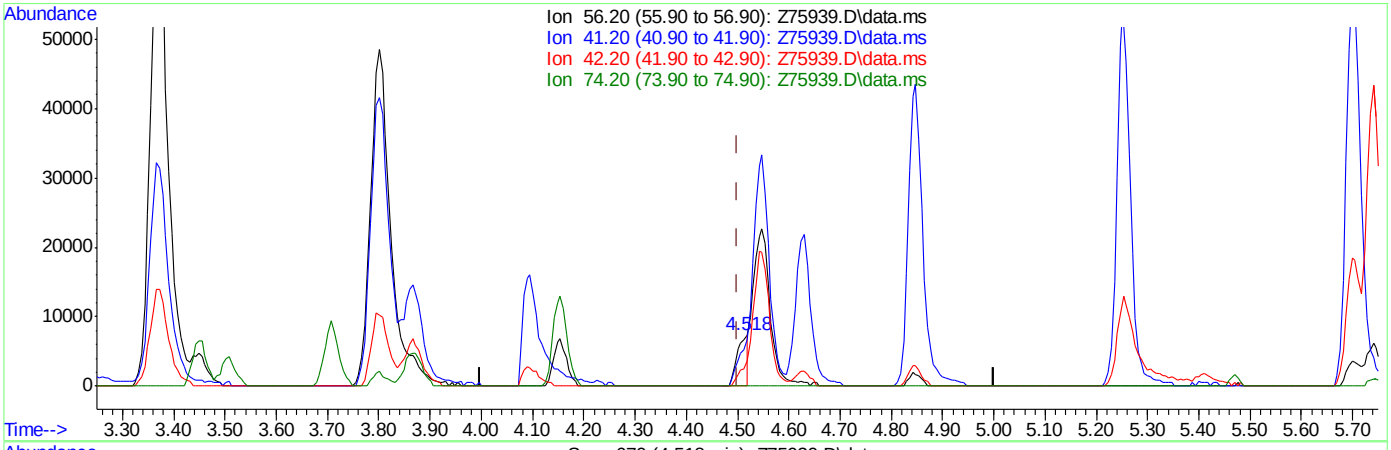
response 63395

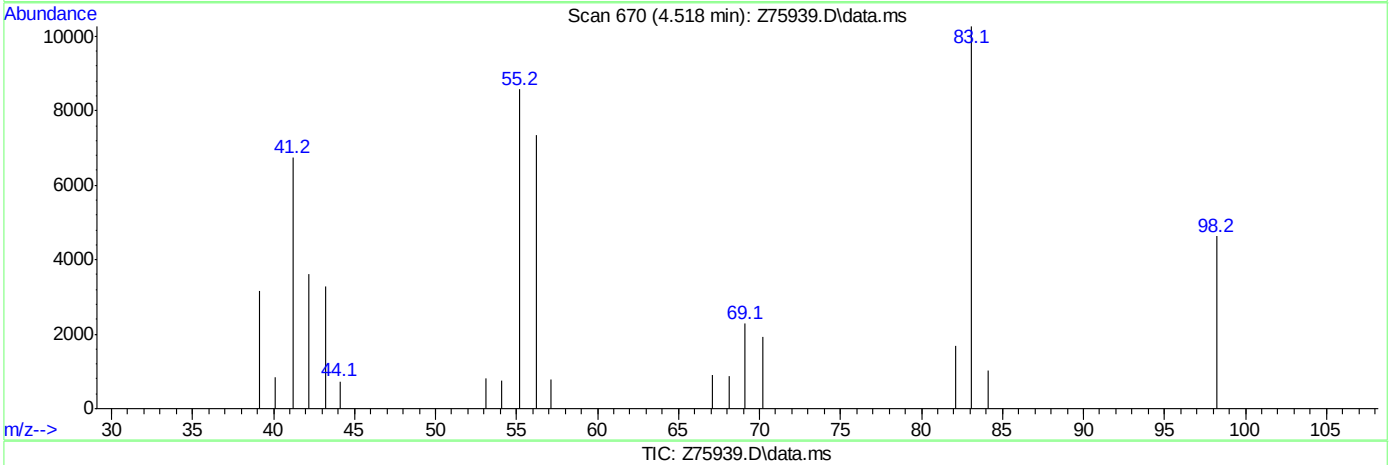
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	147.11#
42.20	28.80	85.23#
74.20	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75939.D
Acq On : 24 May 2019 11:41 am
Operator : firatt
Sample : td39541-2msd
Misc : ms24762,vz6291,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 12:02:28 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75939.D\data.ms

(58) n-Butyl Alcohol

4.518min (+0.018) 81.59ug/L m

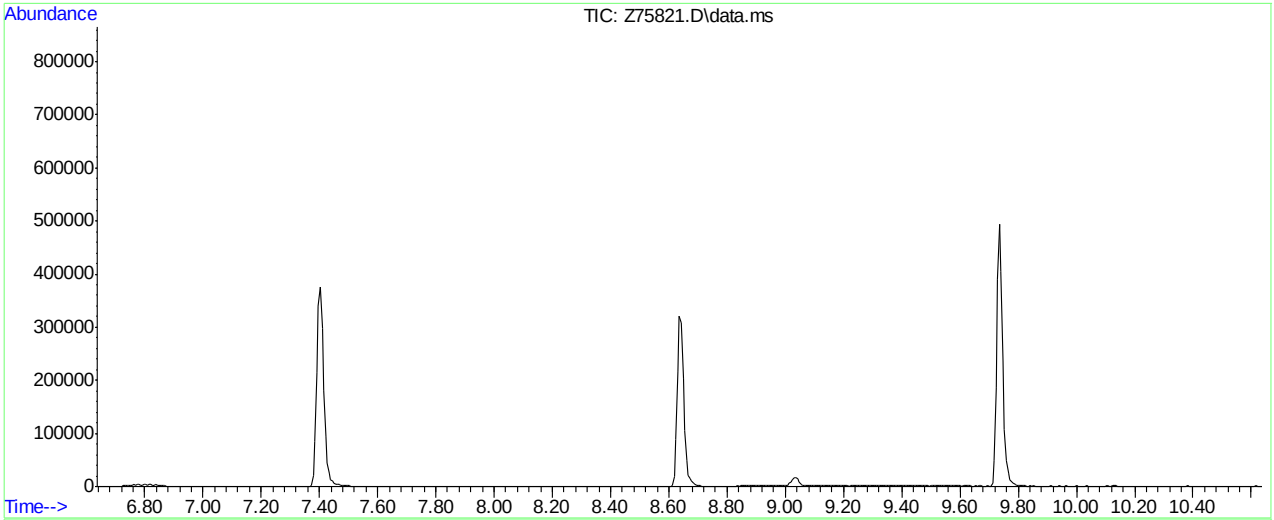
response 10452

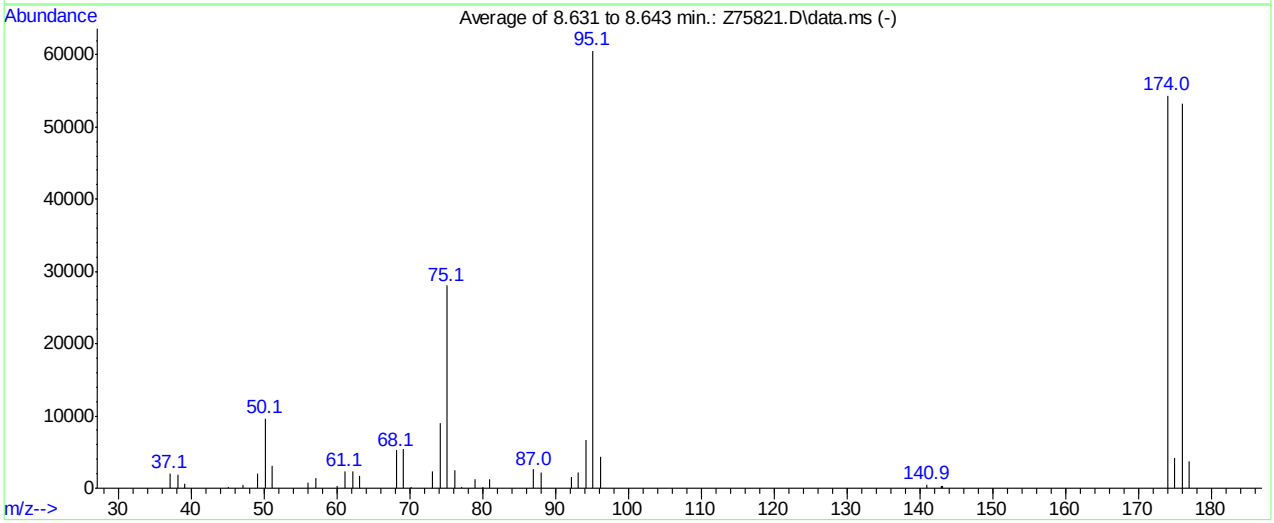
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	91.62
42.20	28.80	49.18
74.20	0.00	0.00

Methods: SW-846 8260B

Data File : C:\msdchem\1\DATA\VZ6285\Z75821.D Vial: 7
Acq On : 20 May 2019 12:48 pm Operator: firatt
Sample : bfb Inst : MS_Z
Misc : ms24730,vz6285,5,,,5,,water Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\VZ6285.m (RTE Integrator)
Title : SW846 8260C and EPA 624





AutoFind: Scans 1370, 1371, 1372; Background Corrected with Scan 1364

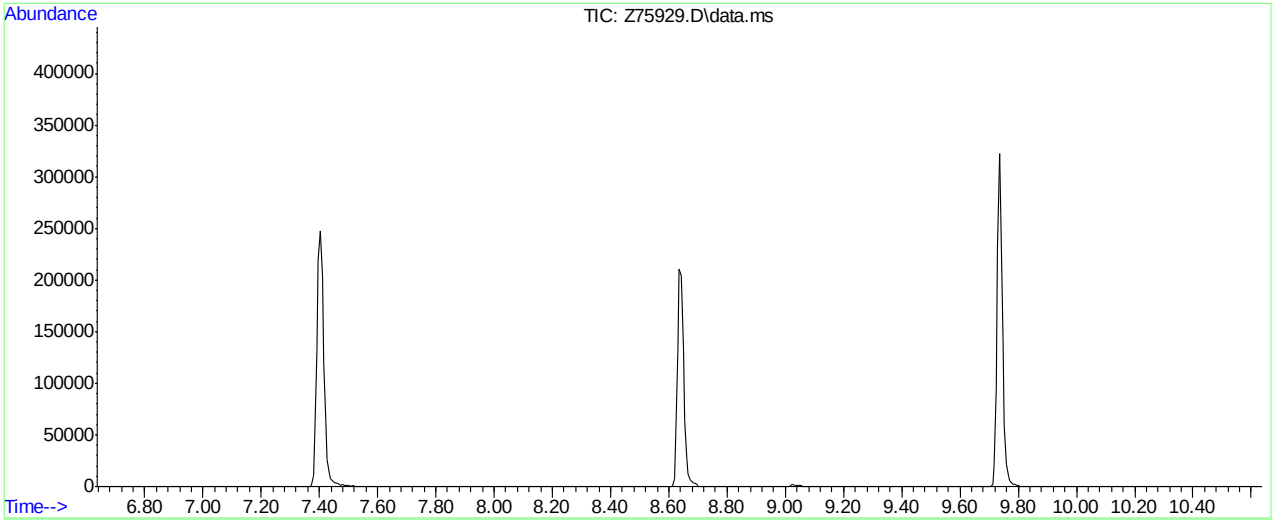
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	9661	PASS
75	95	30	60	46.2	28024	PASS
95	95	100	100	100.0	60597	PASS
96	95	5	9	7.2	4376	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.7	54336	PASS
175	174	5	9	7.7	4177	PASS
176	174	95	101	98.1	53299	PASS
177	176	5	9	7.0	3738	PASS

Z75821.D VZ6285.m Tue May 21 08:06:53 2019

Methods: SW-846 8260B

Data File : C:\msdchem\1\DATA\VZ6291\Z75929.D Vial: 2
Acq On : 24 May 2019 7:35 am Operator: firatt
Sample : bfb Inst : MS_Z
Misc : ms24759,vz6291,5,,,5,,water Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\VZ6285.m (RTE Integrator)
Title : SW846 8260C and EPA 624



AutoFind: Scans 1370, 1371, 1372; Background Corrected with Scan 1365

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	6304	PASS
75	95	30	60	43.8	18062	PASS
95	95	100	100	100.0	41216	PASS
96	95	5	9	6.2	2566	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.4	34787	PASS
175	174	5	9	8.0	2799	PASS
176	174	95	101	97.9	34040	PASS
177	176	5	9	7.5	2538	PASS

Z75929.D VZ6285.m Fri May 24 08:50:20 2019

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/21/19 13:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75822.D
Acq On : 20 May 2019 1:13 pm
Operator : firatt
Sample : ic6285-0.5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 20 18:24:02 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:22:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	649356	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	942938	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	841591	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	434551	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	434551	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	271996	50.14	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 100.28%			
51) 1,2-Dichloroethane-d4	3.684	65	313331	50.79	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 101.58%			
73) Toluene-d8	5.740	98	1060994	51.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.34%			
95) 4-Bromofluorobenzene	8.637	95	393909	50.12	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.24%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.740	85	4510	0.55	ug/L	92
3) Chloromethane	0.834	50	17524	0.49	ug/L	93
4) Vinyl Chloride	0.887	62	4843	0.39	ug/L	90
5) 1,3-Butadiene	0.864	54	2841	0.59	ug/L	74
6) Ethylene Oxide	0.999	44	25707	7.61	ug/L	91
7) Bromomethane	1.022	94	3384	0.29	ug/L	88
8) Chloroethane	1.075	64	2205	0.13	ug/L #	46
9) Vinyl Bromide	1.169	106	2451	0.58	ug/L	94
10) Trichlorofluoromethane	1.187	101	5980	0.35	ug/L	99
12) Ethyl Ether	1.357	59	2771	0.67	ug/L	88
13) Acrolein	1.445	56	2903	2.66	ug/L	90
14) 1,1-Dichloroethene	1.481	61	4340	0.62	ug/L	90
15) Freon 113	1.516	101	2612	0.58	ug/L #	47
16) Acetone	1.545	43	7756	4.95	ug/L	92
18) Isopropyl Alcohol	1.663	45	2364	6.44	ug/L	62
19) Iodomethane	1.575	142	6420	0.65	ug/L #	88
20) Methyl acetate	1.774	43	15934	4.16	ug/L	94
22) Allyl Chloride	1.727	76	732	0.31	ug/L #	61
24) Methylene Chloride	1.821	49	5835	1.04	ug/L	83
25) Tert Butyl Alcohol	1.980	59	5579	6.07	ug/L	80
26) trans-1,2-Dichloroethene	2.027	61	4848	0.37	ug/L	97
27) Acrylonitrile	2.056	53	5750	2.68	ug/L	92
28) Hexane	2.250	57	4099	0.57	ug/L	89
29) Methyl Tert Butyl Ether	2.045	73	8459	0.62	ug/L	92
30) 1,1-Dichloroethane	2.385	63	6581	0.63	ug/L	90
31) Vinyl acetate	2.473	43	21637	1.49	ug/L	85
33) Di-isopropyl ether	2.468	45	9978	0.61	ug/L #	47
34) Chloroprene	2.462	53	4796	0.63	ug/L	89
35) Ethyl tert-butyl ether	2.797	59	5805	0.50	ug/L	91
36) Ethyl Acetate	3.043	43	12572	1.93	ug/L	93
37) 2,2-Dichloropropane	2.873	77	2009	0.43	ug/L	80
38) cis-1,2-Dichloroethene	2.902	61	5509	0.62	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75822.D
Acq On : 20 May 2019 1:13 pm
Operator : firatt
Sample : ic6285-0.5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 20 18:24:02 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:22:14 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	2-Butanone	2.973	43	6099	2.41	ug/L		91
41)	Methacrylonitrile	3.179	41	9616	2.73	ug/L		79
42)	Bromochloromethane	3.126	128	1834	0.53	ug/L		89
43)	Chloroform	3.226	83	9138	0.38	ug/L		88
44)	Tetrahydrofuran	3.161	42	399	0.17	ug/L	#	1
45)	1,1,1-Trichloroethane	3.349	97	4856	0.58	ug/L		96
47)	Cyclohexane	3.372	56	4494	0.55	ug/L		91
48)	1,1-Dichloropropene	3.513	75	6293	0.63	ug/L		96
50)	Carbon Tetrachloride	3.496	119	3420	0.50	ug/L	#	59
52)	Isobutyl Alcohol	3.807	43	2341	4.76	ug/L		92
53)	Benzene	3.713	78	19129	0.39	ug/L	#	1
54)	1,2-Dichloroethane	3.760	62	5678	0.53	ug/L		84
55)	2,2,4-Trimethylpentane	3.801	57	11393	0.60	ug/L		98
56)	tert-amyl methyl ether	3.872	73	5370	0.49	ug/L		97
59)	Trichloroethene	4.395	95	4093	0.60	ug/L		90
60)	Methylcyclohexane	4.548	83	5962	0.61	ug/L		91
61)	Methyl Methacrylate	4.853	41	2149	0.44	ug/L	#	75
62)	1,2-Dichloropropane	4.630	63	3470	0.58	ug/L		96
63)	Dibromomethane	4.765	93	2510	0.59	ug/L		84
65)	Bromodichloromethane	4.959	83	4218	0.60	ug/L		89
66)	2-Nitropropane	5.258	41	2646	1.93	ug/L		94
68)	1-Bromo-2-Chloroethane	5.276	63	5684	0.36	ug/L		99
70)	4-Methyl-2-pentanone	5.711	43	28406	2.35	ug/L	#	26
71)	cis-1,3-Dichloropropene	5.476	75	3231	0.38	ug/L		89
74)	Toluene	5.817	91	18872	0.37	ug/L		89
77)	1,1,2-Trichloroethane	6.351	83	2947	0.59	ug/L		89
78)	Tetrachloroethene	6.439	166	5138	0.63	ug/L		94
79)	2-hexanone	6.745	43	17944	4.17	ug/L		91
80)	1,3-Dichloropropane	6.539	76	6828	0.64	ug/L		95
81)	Dibromochloromethane	6.786	129	2050	0.40	ug/L		81
82)	n-Butyl Acetate	6.910	43	11341	1.29	ug/L		82
83)	1,2-Dibromoethane	6.874	107	3611	0.56	ug/L		98
84)	1-Chlorohexane	7.479	91	3132	0.44	ug/L		93
85)	Chlorobenzene	7.432	112	12432	0.50	ug/L		86
86)	1,1,1,2-Tetrachloroethane	7.550	131	2595	0.48	ug/L	#	79
87)	Ethylbenzene	7.585	91	18215	0.61	ug/L		98
88)	m,p-Xylene	7.715	91	28932	1.27	ug/L		97
89)	o-Xylene	8.114	91	14532	0.61	ug/L		96
90)	Styrene	8.143	104	8451	0.49	ug/L		93
91)	Bromoform	8.308	173	937m	0.69	ug/L		
93)	Isopropylbenzene	8.508	105	17603	0.63	ug/L		98
96)	Bromobenzene	8.754	156	5287	0.62	ug/L		99
97)	1,1,2,2-Tetrachloroethane	8.848	83	5261	0.60	ug/L		96
99)	1,2,3-Trichloropropane	8.866	110	1380	0.30	ug/L	#	65
100)	n-Propylbenzene	8.913	91	19162	0.59	ug/L		99
101)	2-Chlorotoluene	8.960	91	14556	0.42	ug/L		97
102)	4-Chlorotoluene	9.072	91	15348	0.64	ug/L		98
103)	1,3,5-Trimethylbenzene	9.095	105	13255	0.58	ug/L		94
104)	Butyl Methacrylate	9.277	69	632	0.81	ug/L	#	14
105)	alpha-Methylstyrene	9.313	118	4444	0.43	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75822.D
Acq On : 20 May 2019 1:13 pm
Operator : firatt
Sample : ic6285-0.5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 20 18:24:02 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:22:14 2019
Response via : Initial Calibration

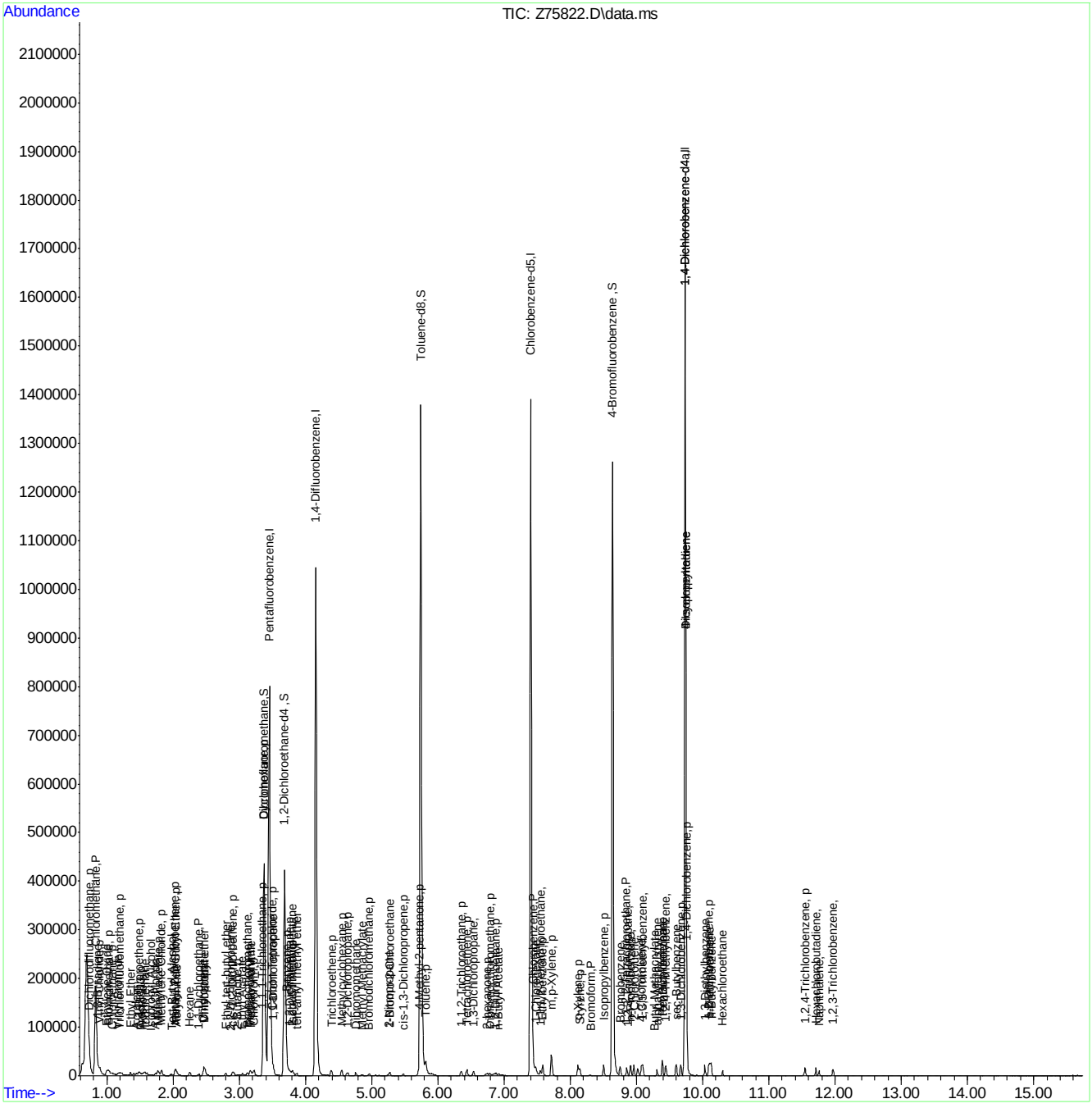
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
106) Pentachloroethane	9.395	167	1478	0.42 ug/L	77
107) sec-Butylbenzene	9.601	105	18701	0.62 ug/L	98
108) 1,3-Dichlorobenzene	9.671	146	10420	0.49 ug/L	98
109) 4-Isopropyltoluene	9.747	119	16158	0.62 ug/L	96
110) 1,4-Dichlorobenzene	9.759	146	11111	0.37 ug/L	88
111) tert-Butylbenzene	9.395	91	7629	0.57 ug/L	93
112) Dicyclopentadiene	9.747	66	19650	0.45 ug/L	84
113) n-Butylbenzene	10.129	91	16370	0.59 ug/L	95
114) 1,2-Dichlorobenzene	10.094	146	9937	0.57 ug/L	95
115) 1,2,4-Trimethylbenzene	9.442	105	13743	0.59 ug/L	96
117) p-Diethylbenzene	10.106	119	7867	0.54 ug/L	99
118) Hexachloroethane	10.306	119	809	0.62 ug/L #	57
120) 1,2,4-Trichlorobenzene	11.545	180	6439	0.60 ug/L	87
121) 1,3-Diethylbenzene	10.035	119	7832	0.54 ug/L	89
122) Hexachlorobutadiene	11.710	225	4006	0.34 ug/L	93
123) Naphthalene	11.757	128	11782	0.52 ug/L	98
124) 1,2,3-Trichlorobenzene	11.968	180	5580	0.58 ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75822.D
Acq On : 20 May 2019 1:13 pm
Operator : firatt
Sample : ic6285-0.5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 20 18:24:02 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:22:14 2019
Response via : Initial Calibration



Manual Integration Approval Summary

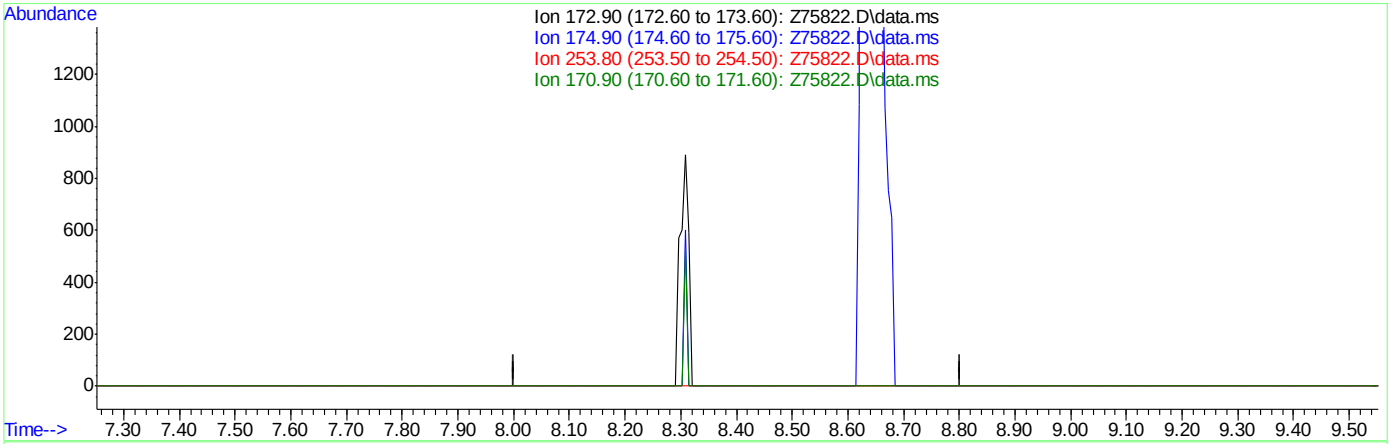
Sample Number:	VZ6285-IC6285	**Method:**	SW846 8260C
Lab FileID:	Z75822.D	**Analyst approved:**	05/21/19 08:05 Firat Tastan
Injection Time:	05/20/19 13:13	**Supervisor approved:**	05/21/19 13:17 John Watson

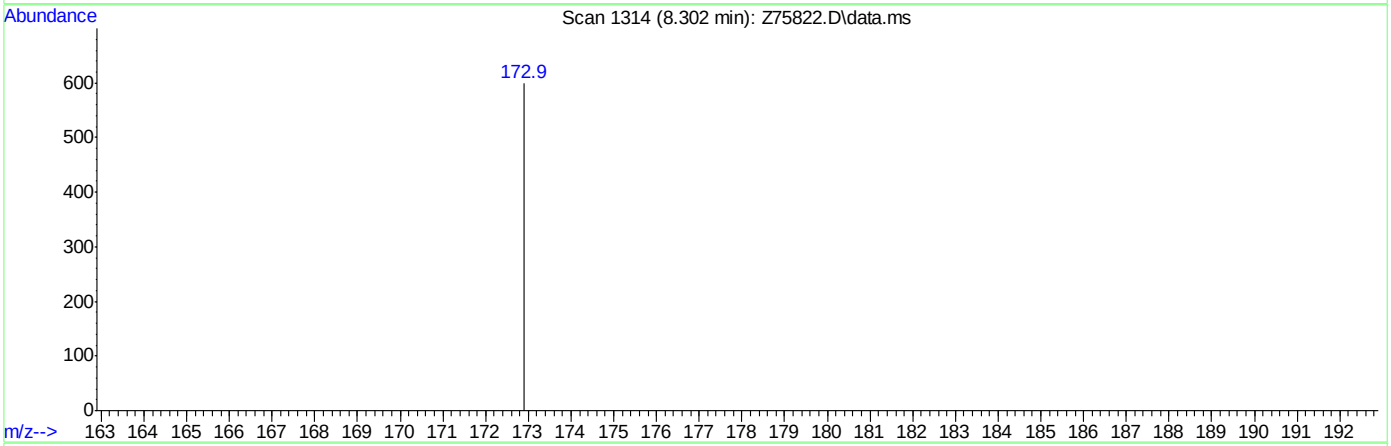
Parameter	CAS	Sig#	R.T. (min.)	Reason
Bromoform	75-25-2		8.31	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75822.D
Acq On : 20 May 2019 1:13 pm
Operator : firatt
Sample : ic6285-0.5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 20 18:22:15 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:22:14 2019
Response via : Initial Calibration





TIC: Z75822.D\data.ms

(91) Bromoform (P)

8.302min (-8.302) 0.00ug/L

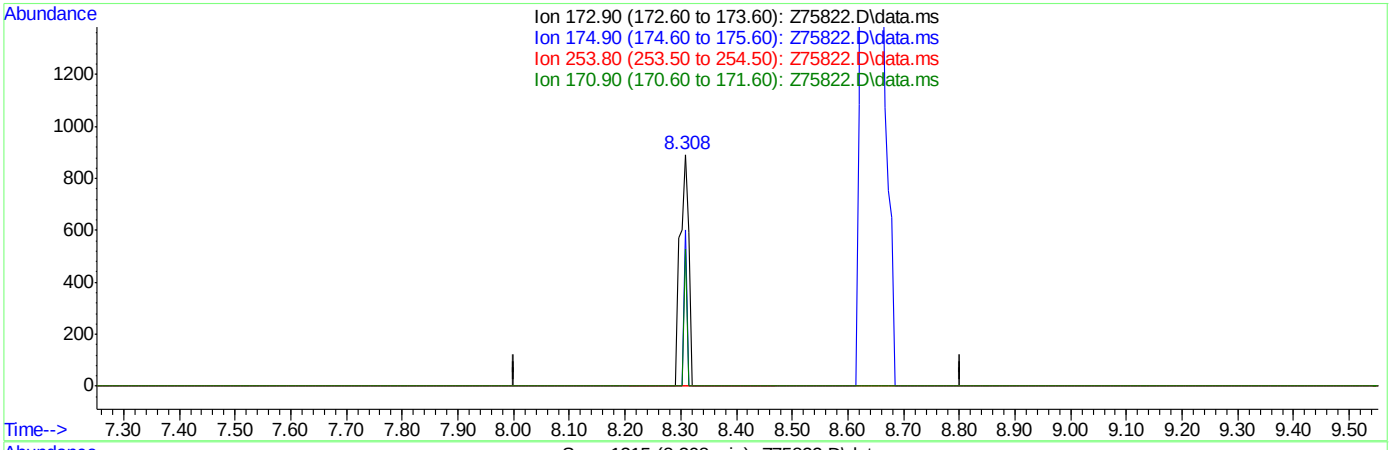
response 0

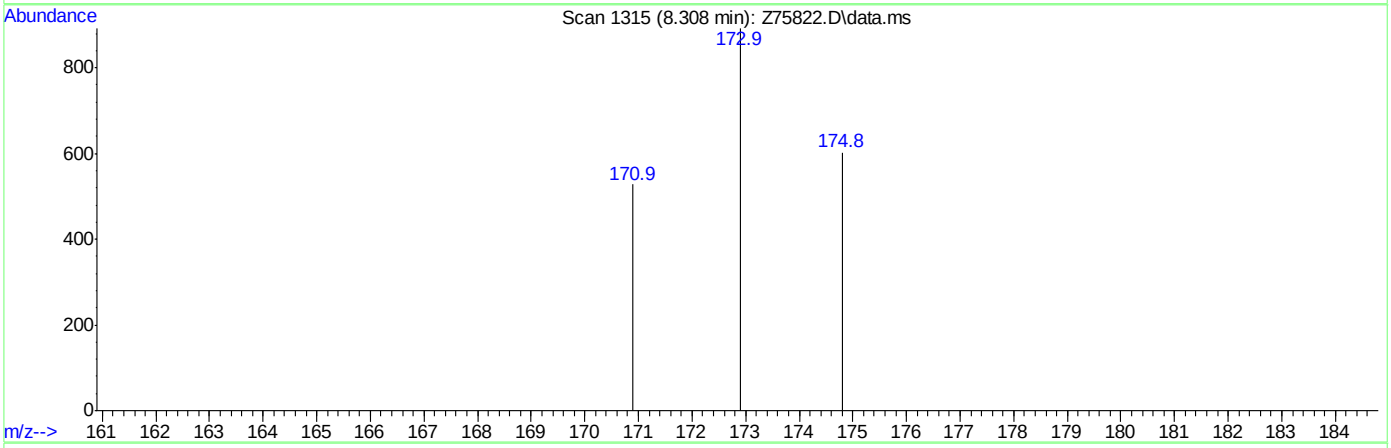
Ion	Exp%	Act%
172.90	100	0.00
174.90	46.70	0.00#
253.80	10.90	0.00
170.90	51.60	0.00#

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75822.D
Acq On    : 20 May 2019   1:13 pm
Operator  : firatt
Sample    : ic6285-0.5
Misc      : ms24730,vz6285,5,,,5,,water
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: May 20 18:22:15 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title  : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:22:14 2019
Response via : Initial Calibration
```





TIC: Z75822.D\data.ms

(91) Bromoform (P)

8.308min (+0.006) 0.69ug/L m

response 937

Ion	Exp%	Act%
172.90	100	100
174.90	46.70	67.49
253.80	10.90	0.00
170.90	51.60	59.19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75823.D
Acq On : 20 May 2019 1:38 pm
Operator : firatt
Sample : ic6285-1
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 20 18:03:50 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	636290	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	925774	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	817520	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	421106	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	421106	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	267447	50.11	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 100.22%			
51) 1,2-Dichloroethane-d4	3.684	65	302354	50.80	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 101.60%			
73) Toluene-d8	5.740	98	1033896	51.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 103.48%			
95) 4-Bromofluorobenzene	8.637	95	384349	50.54	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 101.08%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	11450	1.60	ug/L	96
3) Chloromethane	0.834	50	23769	3.28	ug/L	92
4) Vinyl Chloride	0.887	62	10558	2.00	ug/L	95
5) 1,3-Butadiene	0.869	54	6019	1.60	ug/L	100
6) Ethylene Oxide	0.999	44	82909	86.97	ug/L	94
7) Bromomethane	1.028	94	7581	2.02	ug/L	81
8) Chloroethane	1.075	64	5994	1.98	ug/L	90
9) Vinyl Bromide	1.169	106	5560	1.42	ug/L	87
10) Trichlorofluoromethane	1.198	101	12855	1.77	ug/L	91
11) Ethyl Alcohol	1.351	45	5765	18.37	ug/L	66
12) Ethyl Ether	1.357	59	5550	1.48	ug/L	84
13) Acrolein	1.439	56	7078	6.76	ug/L	86
14) 1,1-Dichloroethene	1.480	61	9184	1.51	ug/L	93
15) Freon 113	1.504	101	5045	1.17	ug/L	85
16) Acetone	1.545	43	13881	9.64	ug/L	93
17) Propylene Oxide	1.392	58	489	0.46	ug/L	92
18) Isopropyl Alcohol	1.663	45	4469	13.57	ug/L	56
19) Iodomethane	1.574	142	12867	1.50	ug/L	98
20) Methyl acetate	1.768	43	31903	8.62	ug/L	95
21) Carbon Disulfide	1.604	76	12197	1.08	ug/L	97
22) Allyl Chloride	1.739	76	2447	0.99	ug/L #	85
23) Acetonitrile	1.745	40	2428	5.61	ug/L #	36
24) Methylene Chloride	1.821	49	9889	1.87	ug/L	97
25) Tert Butyl Alcohol	1.968	59	11961	14.99	ug/L	87
26) trans-1,2-Dichloroethene	2.033	61	10172	1.63	ug/L	97
27) Acrylonitrile	2.056	53	14073	7.58	ug/L	98
28) Hexane	2.250	57	8349	1.21	ug/L	89
29) Methyl Tert Butyl Ether	2.044	73	16638	1.37	ug/L	83
30) 1,1-Dichloroethane	2.385	63	13106	1.46	ug/L	94
31) Vinyl acetate	2.473	43	44179	3.28	ug/L	99
33) Di-isopropyl ether	2.473	45	21749	1.53	ug/L #	66
34) Chloroprene	2.456	53	9154	1.33	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75823.D
Acq On : 20 May 2019 1:38 pm
Operator : firatt
Sample : ic6285-1
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 20 18:03:50 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) Ethyl tert-butyl ether	2.797	59	12296	1.11	ug/L		95
36) Ethyl Acetate	3.043	43	28929	4.90	ug/L		96
37) 2,2-Dichloropropane	2.885	77	5134	1.09	ug/L		89
38) cis-1,2-Dichloroethene	2.902	61	11507	1.48	ug/L		94
39) 2-Butanone	2.967	43	13717	5.47	ug/L		100
41) Methacrylonitrile	3.161	41	21976	6.66	ug/L		86
42) Bromochloromethane	3.131	128	4516	1.48	ug/L		91
43) Chloroform	3.225	83	17043	1.81	ug/L		95
44) Tetrahydrofuran	3.178	42	2360	0.99	ug/L	#	1
45) 1,1,1-Trichloroethane	3.349	97	9471	1.25	ug/L		88
47) Cyclohexane	3.378	56	9296	1.21	ug/L		96
48) 1,1-Dichloropropene	3.507	75	11201	1.59	ug/L		90
50) Carbon Tetrachloride	3.490	119	7660	1.23	ug/L	#	76
52) Isobutyl Alcohol	3.807	43	6400	12.69	ug/L		87
53) Benzene	3.713	78	36307	1.69	ug/L	#	14
54) 1,2-Dichloroethane	3.760	62	11517	1.62	ug/L		97
55) 2,2,4-Trimethylpentane	3.801	57	21720	1.22	ug/L		85
56) tert-amyl methyl ether	3.872	73	10470	0.97	ug/L		87
57) Crotonaldehyde	4.130	41	565	1.00	ug/L	#	1
58) n-Butyl Alcohol	4.547	56	2876	20.83	ug/L	#	10
59) Trichloroethene	4.389	95	9311	1.63	ug/L		88
60) Methylcyclohexane	4.547	83	10588	1.15	ug/L		95
61) Methyl Methacrylate	4.853	41	5378	1.10	ug/L		94
62) 1,2-Dichloropropane	4.630	63	7943	1.51	ug/L		97
63) Dibromomethane	4.759	93	5542	1.47	ug/L		92
65) Bromodichloromethane	4.965	83	8101	1.27	ug/L		96
66) 2-Nitropropane	5.258	41	6033	4.02	ug/L		79
67) 2-Chloroethyl vinyl ether	5.370	63	2448	1.48	ug/L	#	75
68) 1-Bromo-2-Chloroethane	5.276	63	12927	1.64	ug/L		91
70) 4-Methyl-2-pentanone	5.705	43	48603	8.54	ug/L		89
71) cis-1,3-Dichloropropene	5.476	75	8049	0.90	ug/L		97
74) Toluene	5.817	91	37201	1.62	ug/L		100
75) Ethyl Methacrylate	6.328	69	5594	0.72	ug/L		95
76) trans-1,3-Dichloropropene	6.157	75	4940	0.70	ug/L		90
77) 1,1,2-Trichloroethane	6.357	83	6875	1.57	ug/L		96
78) Tetrachloroethene	6.434	166	10339	1.49	ug/L		91
79) 2-hexanone	6.727	43	28802	7.22	ug/L		88
80) 1,3-Dichloropropane	6.533	76	14008	1.53	ug/L		92
81) Dibromochloromethane	6.786	129	5290	1.02	ug/L		98
82) n-Butyl Acetate	6.909	43	25364	2.96	ug/L		92
83) 1,2-Dibromoethane	6.874	107	7588	1.28	ug/L		90
84) 1-Chlorohexane	7.479	91	6798	0.96	ug/L		82
85) Chlorobenzene	7.432	112	24773	1.58	ug/L		93
86) 1,1,1,2-Tetrachloroethane	7.550	131	6026	1.17	ug/L		92
87) Ethylbenzene	7.585	91	39890	1.57	ug/L		96
88) m,p-Xylene	7.714	91	59166	2.97	ug/L		96
89) o-Xylene	8.114	91	29807	1.41	ug/L		99
90) Styrene	8.143	104	19422	1.15	ug/L		95
91) Bromoform	8.308	173	2323	0.68	ug/L		92
93) Isopropylbenzene	8.502	105	35124	1.43	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75823.D
Acq On : 20 May 2019 1:38 pm
Operator : firatt
Sample : ic6285-1
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 20 18:03:50 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

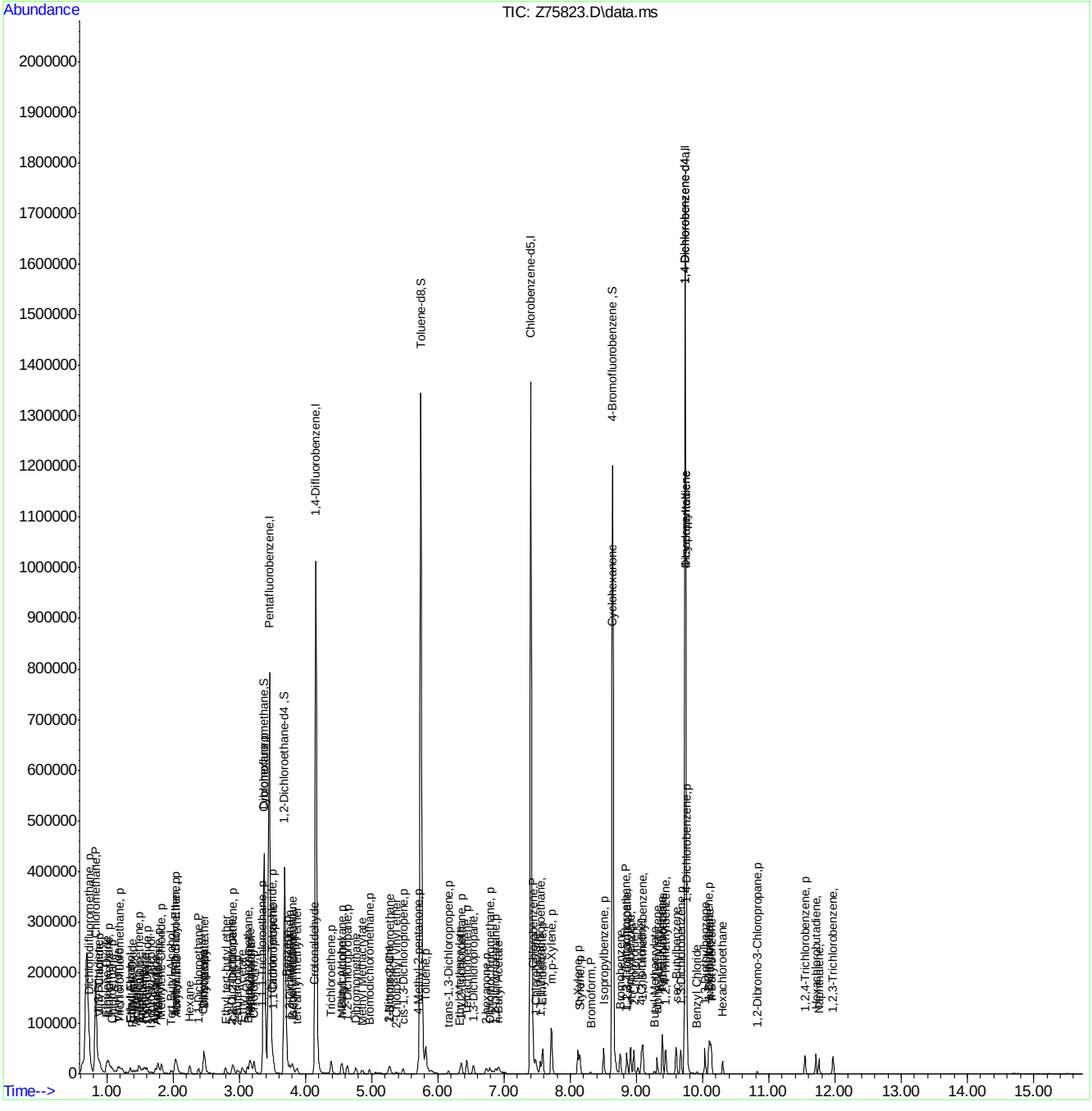
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
94)	Cyclohexanone	8.631	55	686	4.49	ug/L	#	1
96)	Bromobenzene	8.754	156	10827	1.48	ug/L		97
97)	1,1,2,2-Tetrachloroethane	8.848	83	11942	1.60	ug/L		97
99)	1,2,3-Trichloropropane	8.860	110	3957	1.67	ug/L		94
100)	n-Propylbenzene	8.913	91	39440	1.36	ug/L		95
101)	2-Chlorotoluene	8.960	91	28923	1.67	ug/L		92
102)	4-Chlorotoluene	9.078	91	31285	1.53	ug/L		98
103)	1,3,5-Trimethylbenzene	9.095	105	28165	1.37	ug/L		98
104)	Butyl Methacrylate	9.271	69	2510	0.39	ug/L		96
105)	alpha-Methylstyrene	9.313	118	10311	1.00	ug/L		96
106)	Pentachloroethane	9.395	167	3928	1.13	ug/L		96
107)	sec-Butylbenzene	9.600	105	35781	1.35	ug/L		95
108)	1,3-Dichlorobenzene	9.671	146	20819	1.57	ug/L		93
109)	4-Isopropyltoluene	9.747	119	32233	1.42	ug/L		97
110)	1,4-Dichlorobenzene	9.759	146	22955	1.72	ug/L		90
111)	tert-Butylbenzene	9.389	91	17130	1.49	ug/L		90
112)	Dicyclopentadiene	9.747	66	33353	1.73	ug/L		92
113)	n-Butylbenzene	10.129	91	32946	1.33	ug/L		99
114)	1,2-Dichlorobenzene	10.094	146	21161	1.67	ug/L		93
115)	1,2,4-Trimethylbenzene	9.442	105	27658	1.33	ug/L		95
116)	Benzyl Chloride	9.912	91	5279	0.27	ug/L		54
117)	p-Diethylbenzene	10.112	119	16971	1.29	ug/L		99
118)	Hexachloroethane	10.306	119	2223	0.90	ug/L	#	57
119)	1,2-Dibromo-3-Chloropr...	10.823	75	696	0.62	ug/L		79
120)	1,2,4-Trichlorobenzene	11.545	180	12616	1.41	ug/L		92
121)	1,3-Diethylbenzene	10.035	119	16416	1.22	ug/L		88
122)	Hexachlorobutadiene	11.710	225	8108	1.68	ug/L		97
123)	Naphthalene	11.757	128	25199	1.25	ug/L		95
124)	1,2,3-Trichlorobenzene	11.968	180	12393	1.57	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75823.D
Acq On : 20 May 2019 1:38 pm
Operator : firatt
Sample : ic6285-1
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 20 18:03:50 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75824.D
Acq On : 20 May 2019 2:02 pm
Operator : firatt
Sample : ic6285-2
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 20 18:06:16 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	642949	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	944455	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	840624	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	444409	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	444409	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	274328	50.86	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 101.72%			
51) 1,2-Dichloroethane-d4	3.684	65	314750	51.83	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 103.66%			
73) Toluene-d8	5.740	98	1062852	51.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 103.44%			
95) 4-Bromofluorobenzene	8.637	95	397162	49.48	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 98.96%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	18323	2.54	ug/L	98
3) Chloromethane	0.828	50	28118	3.85	ug/L	97
4) Vinyl Chloride	0.887	62	14739	2.77	ug/L	87
5) 1,3-Butadiene	0.864	54	11688	3.08	ug/L	85
6) Ethylene Oxide	0.993	44	140423	145.78	ug/L	97
7) Bromomethane	1.016	94	12048	3.18	ug/L	92
8) Chloroethane	1.063	64	9862	3.22	ug/L	98
9) Vinyl Bromide	1.169	106	9321	2.36	ug/L	78
10) Trichlorofluoromethane	1.204	101	21983	2.99	ug/L	95
11) Ethyl Alcohol	1.345	45	7958	25.09	ug/L	94
12) Ethyl Ether	1.351	59	9213	2.44	ug/L	90
13) Acrolein	1.445	56	11602	10.97	ug/L	85
14) 1,1-Dichloroethene	1.481	61	15561	2.53	ug/L	98
15) Freon 113	1.510	101	10752	2.48	ug/L	94
16) Acetone	1.539	43	21579	14.84	ug/L	95
17) Propylene Oxide	1.387	58	851	0.80	ug/L	79
18) Isopropyl Alcohol	1.657	45	7719	23.20	ug/L	84
19) Iodomethane	1.569	142	21813	2.52	ug/L	100
20) Methyl acetate	1.768	43	51578	13.79	ug/L	96
21) Carbon Disulfide	1.604	76	22866	2.01	ug/L	92
22) Allyl Chloride	1.733	76	5064	2.02	ug/L #	83
23) Acetonitrile	1.727	40	4459	10.20	ug/L	96
24) Methylene Chloride	1.821	49	15757	2.96	ug/L	94
25) Tert Butyl Alcohol	1.962	59	19599	24.30	ug/L	91
26) trans-1,2-Dichloroethene	2.027	61	16619	2.64	ug/L	93
27) Acrylonitrile	2.050	53	25004	13.34	ug/L	95
28) Hexane	2.250	57	17156	2.47	ug/L	90
29) Methyl Tert Butyl Ether	2.039	73	28424	2.32	ug/L	93
30) 1,1-Dichloroethane	2.379	63	22887	2.52	ug/L	97
31) Vinyl acetate	2.468	43	78209	5.74	ug/L	97
33) Di-isopropyl ether	2.468	45	36075	2.51	ug/L #	75
34) Chloroprene	2.456	53	16466	2.37	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75824.D
Acq On : 20 May 2019 2:02 pm
Operator : firatt
Sample : ic6285-2
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 20 18:06:16 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) Ethyl tert-butyl ether	2.797	59	20963	1.87	ug/L		97
36) Ethyl Acetate	3.038	43	44792	7.51	ug/L		99
37) 2,2-Dichloropropane	2.885	77	9654	2.02	ug/L		88
38) cis-1,2-Dichloroethene	2.902	61	18934	2.40	ug/L		96
39) 2-Butanone	2.967	43	25030	9.87	ug/L		88
40) Propionitrile	3.038	54	8399	9.37	ug/L		83
41) Methacrylonitrile	3.155	41	36595	10.98	ug/L		93
42) Bromochloromethane	3.126	128	7584	2.46	ug/L		98
43) Chloroform	3.220	83	26081	2.74	ug/L		97
44) Tetrahydrofuran	3.167	42	4984	2.08	ug/L	#	62
45) 1,1,1-Trichloroethane	3.343	97	17445	2.27	ug/L		97
47) Cyclohexane	3.367	56	18656	2.41	ug/L		94
48) 1,1-Dichloropropene	3.508	75	19023	2.68	ug/L		95
50) Carbon Tetrachloride	3.490	119	15946	2.52	ug/L	#	73
52) Isobutyl Alcohol	3.801	43	17849	34.70	ug/L		85
53) Benzene	3.707	78	58344	2.66	ug/L	#	36
54) 1,2-Dichloroethane	3.760	62	18209	2.52	ug/L		97
55) 2,2,4-Trimethylpentane	3.801	57	44117	2.44	ug/L		97
56) tert-amyl methyl ether	3.872	73	18281	1.66	ug/L		96
57) Crotonaldehyde	4.130	41	4060	7.06	ug/L	#	13
58) n-Butyl Alcohol	4.548	56	6944	49.30	ug/L	#	1
59) Trichloroethene	4.383	95	14989	2.57	ug/L		98
60) Methylcyclohexane	4.548	83	22148	2.36	ug/L		89
61) Methyl Methacrylate	4.853	41	9499	1.91	ug/L		86
62) 1,2-Dichloropropane	4.630	63	13011	2.43	ug/L		93
63) Dibromomethane	4.759	93	9025	2.34	ug/L		94
64) 1,4-Dioxane	4.835	88	1863	26.27	ug/L	#	66
65) Bromodichloromethane	4.965	83	13179	2.02	ug/L		99
66) 2-Nitropropane	5.253	41	11305	7.38	ug/L		91
67) 2-Chloroethyl vinyl ether	5.364	63	5667	3.36	ug/L		98
68) 1-Bromo-2-Chloroethane	5.270	63	19544	2.44	ug/L		97
69) Epichlorohydrin	5.417	57	4094	6.81	ug/L		75
70) 4-Methyl-2-pentanone	5.705	43	73199	12.61	ug/L		93
71) cis-1,3-Dichloropropene	5.476	75	13934	1.53	ug/L		91
74) Toluene	5.817	91	63592	2.70	ug/L		95
75) Ethyl Methacrylate	6.322	69	12323	1.54	ug/L		90
76) trans-1,3-Dichloropropene	6.157	75	8701	1.19	ug/L		88
77) 1,1,2-Trichloroethane	6.351	83	10461	2.33	ug/L		93
78) Tetrachloroethene	6.440	166	17647	2.48	ug/L		97
79) 2-hexanone	6.727	43	45185	11.01	ug/L		93
80) 1,3-Dichloropropane	6.539	76	22031	2.34	ug/L		94
81) Dibromochloromethane	6.786	129	8295	1.55	ug/L		95
82) n-Butyl Acetate	6.910	43	43871	4.97	ug/L		97
83) 1,2-Dibromoethane	6.874	107	13141	2.16	ug/L		93
84) 1-Chlorohexane	7.479	91	14248	1.96	ug/L		97
85) Chlorobenzene	7.432	112	41348	2.56	ug/L		92
86) 1,1,1,2-Tetrachloroethane	7.550	131	10562	1.99	ug/L		94
87) Ethylbenzene	7.579	91	66873	2.56	ug/L		98
88) m,p-Xylene	7.715	91	102067	4.98	ug/L		98
89) o-Xylene	8.114	91	52007	2.39	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75824.D
Acq On : 20 May 2019 2:02 pm
Operator : firatt
Sample : ic6285-2
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 20 18:06:16 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

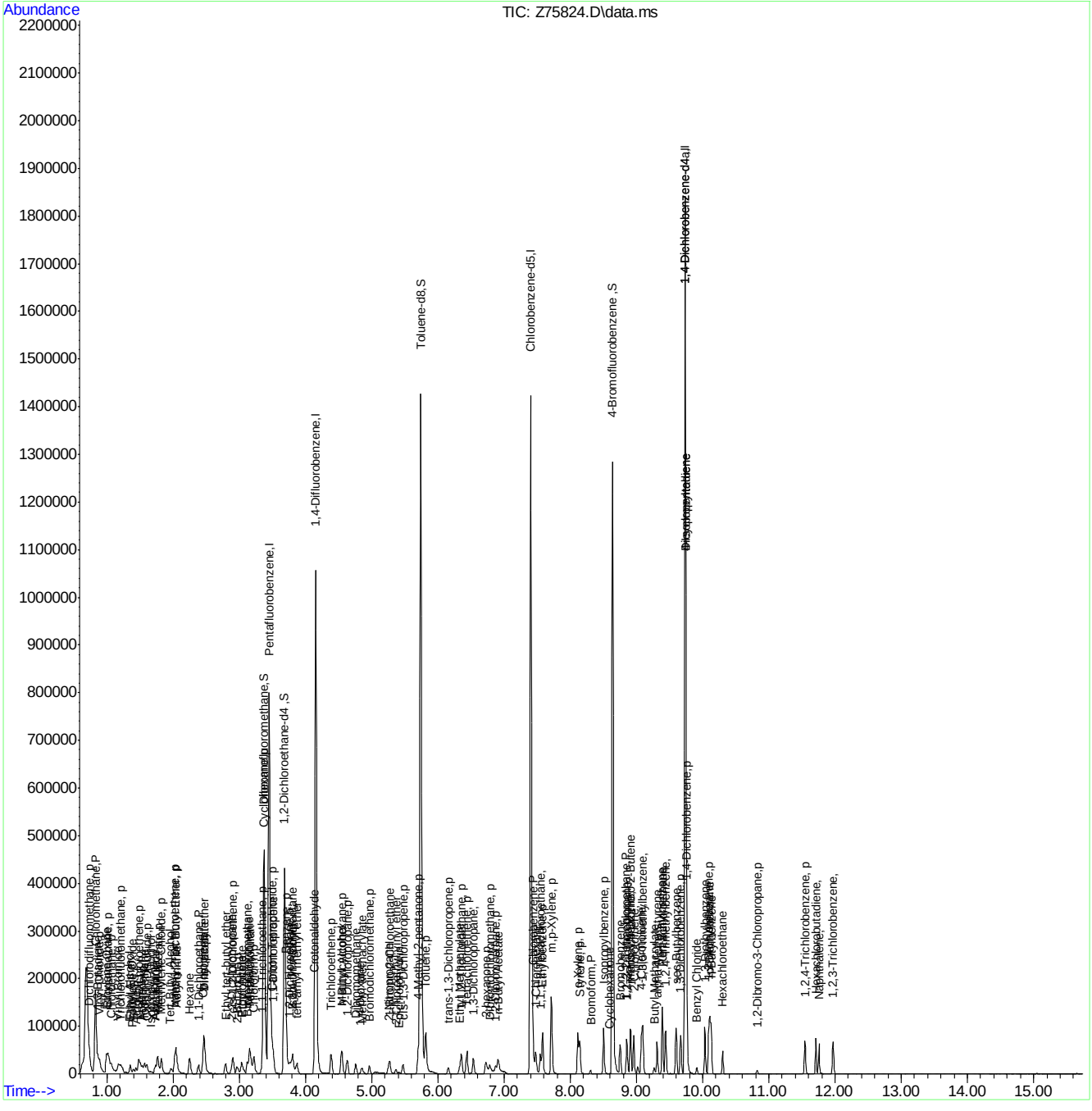
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90)	Styrene	8.143	104	34960	2.01	ug/L		97
91)	Bromoform	8.308	173	4793	1.36	ug/L		85
93)	Isopropylbenzene	8.502	105	61686	2.38	ug/L		99
94)	Cyclohexanone	8.590	55	2713	16.82	ug/L	#	28
96)	Bromobenzene	8.754	156	17272	2.24	ug/L		95
97)	1,1,2,2-Tetrachloroethane	8.848	83	19550	2.47	ug/L		94
98)	Trans-1,4-Dichloro-2-B...	8.907	53	983	0.75	ug/L	#	72
99)	1,2,3-Trichloropropane	8.860	110	6196	2.47	ug/L		97
100)	n-Propylbenzene	8.907	91	70485	2.31	ug/L		100
101)	2-Chlorotoluene	8.960	91	48711	2.67	ug/L		97
102)	4-Chlorotoluene	9.078	91	53058	2.45	ug/L		95
103)	1,3,5-Trimethylbenzene	9.095	105	49447	2.28	ug/L		98
104)	Butyl Methacrylate	9.272	69	5722	0.84	ug/L		90
105)	alpha-Methylstyrene	9.313	118	19281	1.77	ug/L		98
106)	Pentachloroethane	9.395	167	6264	1.71	ug/L		91
107)	sec-Butylbenzene	9.601	105	67051	2.39	ug/L		99
108)	1,3-Dichlorobenzene	9.665	146	35627	2.54	ug/L		98
109)	4-Isopropyltoluene	9.747	119	58926	2.46	ug/L		97
110)	1,4-Dichlorobenzene	9.759	146	37423	2.65	ug/L		94
111)	tert-Butylbenzene	9.389	91	30846	2.55	ug/L		96
112)	Dicyclopentadiene	9.747	66	55303	2.72	ug/L		95
113)	n-Butylbenzene	10.129	91	61499	2.35	ug/L		98
114)	1,2-Dichlorobenzene	10.094	146	34511	2.58	ug/L		95
115)	1,2,4-Trimethylbenzene	9.442	105	49821	2.27	ug/L		98
116)	Benzyl Chloride	9.912	91	11744	0.57	ug/L		99
117)	p-Diethylbenzene	10.112	119	31615	2.27	ug/L		90
118)	Hexachloroethane	10.300	119	4081	1.56	ug/L	#	56
119)	1,2-Dibromo-3-Chloropr...	10.829	75	1955	1.65	ug/L	#	78
120)	1,2,4-Trichlorobenzene	11.545	180	22413	2.37	ug/L		96
121)	1,3-Diethylbenzene	10.035	119	30478	2.15	ug/L		100
122)	Hexachlorobutadiene	11.710	225	14721	2.88	ug/L		94
123)	Naphthalene	11.757	128	47844	2.25	ug/L		97
124)	1,2,3-Trichlorobenzene	11.968	180	21146	2.54	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75824.D
Acq On : 20 May 2019 2:02 pm
Operator : firatt
Sample : ic6285-2
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 20 18:06:16 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



VZ6285.m Tue May 21 08:05:52 2019 Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75825.D
Acq On : 20 May 2019 2:27 pm
Operator : firatt
Sample : ic6285-5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 20 18:07:08 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	722500	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	1036878	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	942565	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	501364	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	501364	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	306098	50.51	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 101.02%			
51) 1,2-Dichloroethane-d4	3.684	65	350212	52.53	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 105.06%			
73) Toluene-d8	5.740	98	1184632	51.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.84%			
95) 4-Bromofluorobenzene	8.637	95	454293	50.17	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.34%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	38539	4.75	ug/L	90
3) Chloromethane	0.834	50	53024	6.45	ug/L	97
4) Vinyl Chloride	0.887	62	34254	5.73	ug/L	94
5) 1,3-Butadiene	0.869	54	24079	5.65	ug/L	97
6) Ethylene Oxide	0.999	44	318597	294.34	ug/L	97
7) Bromomethane	1.028	94	27167	6.38	ug/L	97
8) Chloroethane	1.069	64	22756	6.61	ug/L	99
9) Vinyl Bromide	1.169	106	21515	4.85	ug/L	90
10) Trichlorofluoromethane	1.181	101	45688	5.53	ug/L	83
11) Ethyl Alcohol	1.351	45	21718	60.94	ug/L	87
12) Ethyl Ether	1.357	59	24542	5.77	ug/L	99
13) Acrolein	1.439	56	27269	22.94	ug/L	94
14) 1,1-Dichloroethene	1.480	61	37368	5.41	ug/L	97
15) Freon 113	1.504	101	23642	4.84	ug/L	92
16) Acetone	1.539	43	46077	28.20	ug/L	98
17) Propylene Oxide	1.392	58	4755	3.96	ug/L	85
18) Isopropyl Alcohol	1.663	45	18276	48.88	ug/L	95
19) Iodomethane	1.574	142	49922	5.13	ug/L	94
20) Methyl acetate	1.768	43	111069	26.42	ug/L	96
21) Carbon Disulfide	1.604	76	52601	4.11	ug/L	97
22) Allyl Chloride	1.727	76	11686	4.15	ug/L #	80
23) Acetonitrile	1.751	40	10786	21.96	ug/L #	48
24) Methylene Chloride	1.827	49	32698	5.46	ug/L	97
25) Tert Butyl Alcohol	1.962	59	44916	49.56	ug/L	89
26) trans-1,2-Dichloroethene	2.027	61	38184	5.40	ug/L	96
27) Acrylonitrile	2.045	53	51216	24.31	ug/L	97
28) Hexane	2.250	57	35503	4.54	ug/L	99
29) Methyl Tert Butyl Ether	2.039	73	63979	4.65	ug/L	91
30) 1,1-Dichloroethane	2.379	63	51850	5.08	ug/L	99
31) Vinyl acetate	2.468	43	186524	12.18	ug/L	99
33) Di-isopropyl ether	2.468	45	85587	5.29	ug/L #	83
34) Chloroprene	2.456	53	39496	5.06	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75825.D
Acq On : 20 May 2019 2:27 pm
Operator : firatt
Sample : ic6285-5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 20 18:07:08 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) Ethyl tert-butyl ether	2.791	59	52423	4.16	ug/L		99
36) Ethyl Acetate	3.032	43	91577	13.67	ug/L		99
37) 2,2-Dichloropropane	2.879	77	24967	4.65	ug/L		89
38) cis-1,2-Dichloroethene	2.902	61	45556	5.14	ug/L		97
39) 2-Butanone	2.961	43	61107	21.45	ug/L		97
40) Propionitrile	3.032	54	21280	21.13	ug/L		98
41) Methacrylonitrile	3.155	41	91827	24.51	ug/L		99
42) Bromochloromethane	3.120	128	17863	5.16	ug/L		95
43) Chloroform	3.220	83	58139	5.43	ug/L		95
44) Tetrahydrofuran	3.167	42	14153	5.25	ug/L	#	62
45) 1,1,1-Trichloroethane	3.343	97	42515	4.93	ug/L		96
47) Cyclohexane	3.372	56	40296	4.64	ug/L		93
48) 1,1-Dichloropropene	3.513	75	41145	5.15	ug/L		94
50) Carbon Tetrachloride	3.496	119	34342	4.94	ug/L		88
52) Isobutyl Alcohol	3.807	43	24629	43.62	ug/L		86
53) Benzene	3.707	78	130571	5.42	ug/L		68
54) 1,2-Dichloroethane	3.760	62	42952	5.40	ug/L		98
55) 2,2,4-Trimethylpentane	3.801	57	93892	4.72	ug/L		96
56) tert-amyl methyl ether	3.866	73	47003	3.88	ug/L		91
57) Crotonaldehyde	4.119	41	11157	17.68	ug/L		85
58) n-Butyl Alcohol	4.548	56	16778	108.50	ug/L	#	1
59) Trichloroethene	4.389	95	33903	5.29	ug/L		96
60) Methylcyclohexane	4.548	83	47872	4.64	ug/L		98
61) Methyl Methacrylate	4.847	41	24797	4.53	ug/L		93
62) 1,2-Dichloropropane	4.630	63	30404	5.17	ug/L		91
63) Dibromomethane	4.759	93	20499	4.85	ug/L		91
64) 1,4-Dioxane	4.830	88	6314	81.11	ug/L		99
65) Bromodichloromethane	4.965	83	32166	4.49	ug/L		99
66) 2-Nitropropane	5.253	41	29812	17.73	ug/L		98
67) 2-Chloroethyl vinyl ether	5.358	63	23207	12.53	ug/L		90
68) 1-Bromo-2-Chloroethane	5.270	63	46959	5.33	ug/L		98
69) Epichlorohydrin	5.417	57	11835	17.94	ug/L		97
70) 4-Methyl-2-pentanone	5.705	43	164523	25.82	ug/L		98
71) cis-1,3-Dichloropropene	5.470	75	41442	4.13	ug/L		97
74) Toluene	5.817	91	143456	5.42	ug/L		99
75) Ethyl Methacrylate	6.322	69	35001	3.91	ug/L		98
76) trans-1,3-Dichloropropene	6.152	75	26703	3.27	ug/L		97
77) 1,1,2-Trichloroethane	6.351	83	25636	5.08	ug/L		99
78) Tetrachloroethene	6.439	166	40901	5.12	ug/L		96
79) 2-hexanone	6.716	43	102895	22.36	ug/L		98
80) 1,3-Dichloropropane	6.533	76	54477	5.17	ug/L		95
81) Dibromochloromethane	6.786	129	22426	3.74	ug/L		94
82) n-Butyl Acetate	6.904	43	109907	11.11	ug/L		98
83) 1,2-Dibromoethane	6.874	107	33371	4.89	ug/L		99
84) 1-Chlorohexane	7.479	91	35140	4.32	ug/L		96
85) Chlorobenzene	7.432	112	95328	5.27	ug/L		98
86) 1,1,1,2-Tetrachloroethane	7.550	131	26402	4.43	ug/L		96
87) Ethylbenzene	7.579	91	152779	5.21	ug/L		99
88) m,p-Xylene	7.714	91	243347	10.58	ug/L		97
89) o-Xylene	8.114	91	121765	4.99	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75825.D
Acq On : 20 May 2019 2:27 pm
Operator : firatt
Sample : ic6285-5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 20 18:07:08 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

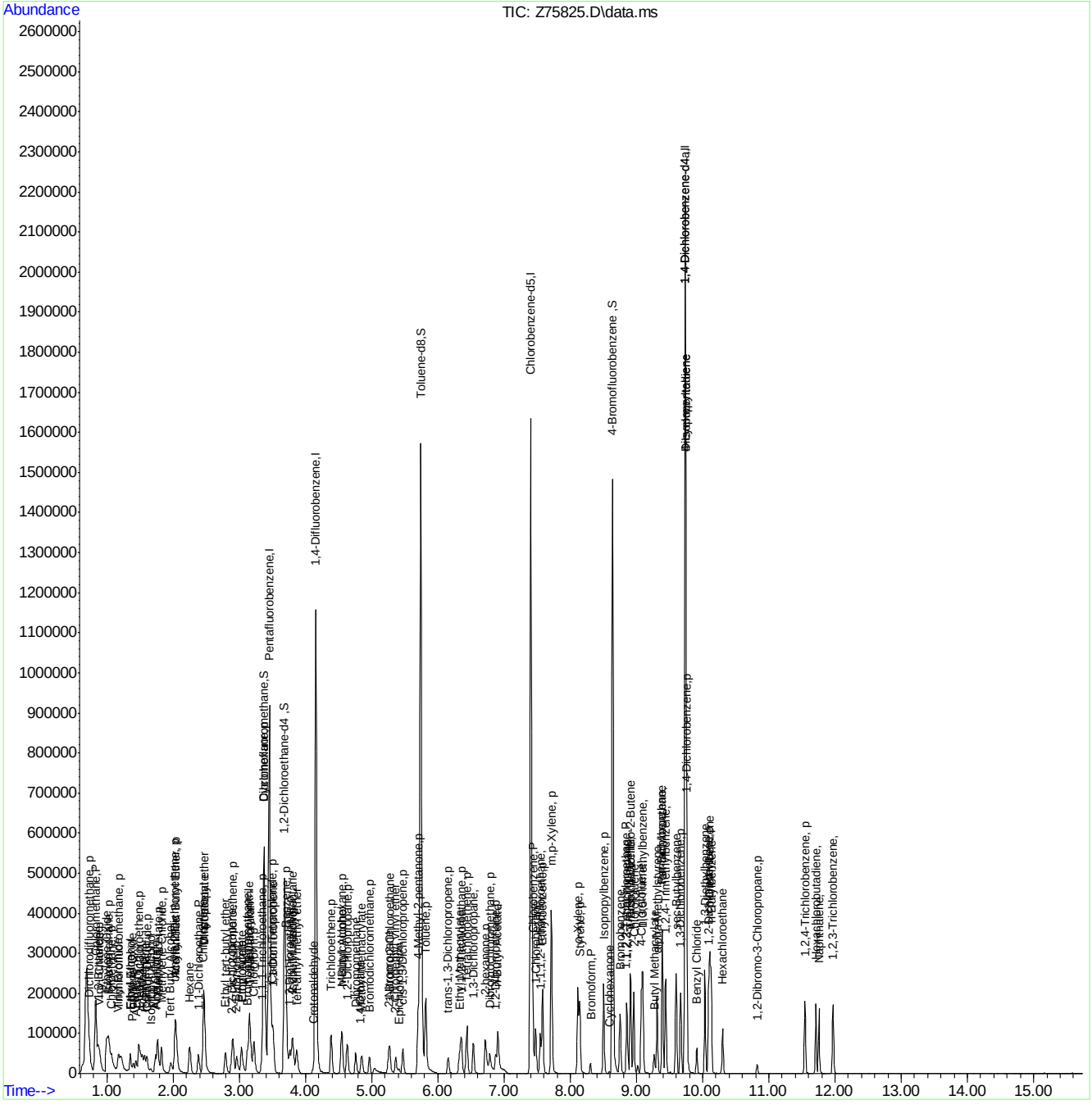
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90)	Styrene	8.143	104	89331	4.58	ug/L		97
91)	Bromoform	8.308	173	12740	3.21	ug/L		93
93)	Isopropylbenzene	8.502	105	146165	5.00	ug/L		96
94)	Cyclohexanone	8.590	55	3274	18.00	ug/L		89
96)	Bromobenzene	8.754	156	44446	5.10	ug/L		100
97)	1,1,2,2-Tetrachloroethane	8.848	83	45223	5.07	ug/L		96
98)	Trans-1,4-Dichloro-2-B...	8.907	53	3950	2.68	ug/L	#	89
99)	1,2,3-Trichloropropane	8.854	110	14636	5.18	ug/L		90
100)	n-Propylbenzene	8.907	91	172136	4.99	ug/L		99
101)	2-Chlorotoluene	8.960	91	114223	5.55	ug/L		99
102)	4-Chlorotoluene	9.072	91	125543	5.14	ug/L		98
103)	1,3,5-Trimethylbenzene	9.095	105	120273	4.92	ug/L		97
104)	Butyl Methacrylate	9.266	69	20467	2.67	ug/L		96
105)	alpha-Methylstyrene	9.313	118	53445	4.35	ug/L		96
106)	Pentachloroethane	9.389	167	16265	3.94	ug/L		100
107)	sec-Butylbenzene	9.601	105	159233	5.03	ug/L		100
108)	1,3-Dichlorobenzene	9.665	146	82784	5.24	ug/L		98
109)	4-Isopropyltoluene	9.747	119	137441	5.09	ug/L		98
110)	1,4-Dichlorobenzene	9.759	146	84791	5.32	ug/L		96
111)	tert-Butylbenzene	9.389	91	72963	5.34	ug/L		98
112)	Dicyclopentadiene	9.747	66	123836	5.39	ug/L		97
113)	n-Butylbenzene	10.129	91	151186	5.13	ug/L		98
114)	1,2-Dichlorobenzene	10.088	146	79194	5.24	ug/L		99
115)	1,2,4-Trimethylbenzene	9.442	105	123293	4.98	ug/L		99
116)	Benzyl Chloride	9.912	91	42875	1.84	ug/L		99
117)	p-Diethylbenzene	10.106	119	77900	4.97	ug/L		99
118)	Hexachloroethane	10.306	119	11257	3.82	ug/L	#	75
119)	1,2-Dibromo-3-Chloropr...	10.823	75	5357	4.02	ug/L		89
120)	1,2,4-Trichlorobenzene	11.545	180	54473	5.10	ug/L		97
121)	1,3-Diethylbenzene	10.035	119	76038	4.75	ug/L		98
122)	Hexachlorobutadiene	11.710	225	32861	5.71	ug/L		98
123)	Naphthalene	11.757	128	121560	5.06	ug/L		100
124)	1,2,3-Trichlorobenzene	11.968	180	51447	5.48	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75825.D
Acq On : 20 May 2019 2:27 pm
Operator : firatt
Sample : ic6285-5
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 20 18:07:08 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



VZ6285.m Tue May 21 08:05:56 2019 Page: 4

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/21/19 13:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75826.D
Acq On : 20 May 2019 2:51 pm
Operator : firatt
Sample : ic6285-20
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 18:08:12 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.449	168	703906	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	1027565	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	928342	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	495594	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	495594	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.373	113	300025	50.81	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 101.62%			
51) 1,2-Dichloroethane-d4	3.684	65	348552	52.76	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 105.52%			
73) Toluene-d8	5.740	98	1159593	51.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.20%			
95) 4-Bromofluorobenzene	8.637	95	445342	49.76	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 99.52%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.729	85	157515	19.91	ug/L	95
3) Chloromethane	0.834	50	199361	24.90	ug/L	100
4) Vinyl Chloride	0.881	62	145319	24.94	ug/L	99
5) 1,3-Butadiene	0.864	54	97858	23.55	ug/L	99
6) Ethylene Oxide	0.993	44	1100602	1043.66	ug/L	99
7) Bromomethane	1.022	94	91619	22.08	ug/L	97
8) Chloroethane	1.063	64	77424	23.07	ug/L	98
9) Vinyl Bromide	1.163	106	87366	20.20	ug/L	98
10) Trichlorofluoromethane	1.199	101	169045	21.02	ug/L	92
11) Ethyl Alcohol	1.351	45	73703	212.28	ug/L	93
12) Ethyl Ether	1.351	59	85767	20.71	ug/L	99
13) Acrolein	1.434	56	115460	99.68	ug/L	100
14) 1,1-Dichloroethene	1.481	61	136386	20.28	ug/L	98
15) Freon 113	1.504	101	90036	18.94	ug/L	97
16) Acetone	1.533	43	165971	104.24	ug/L	99
17) Propylene Oxide	1.387	58	21506	18.40	ug/L	100
18) Isopropyl Alcohol	1.657	45	74352	204.12	ug/L	94
19) Iodomethane	1.569	142	195783	20.63	ug/L	99
20) Methyl acetate	1.763	43	408456	99.73	ug/L	99
21) Carbon Disulfide	1.598	76	241658	19.36	ug/L	100
22) Allyl Chloride	1.727	76	53394	19.45	ug/L	96
23) Acetonitrile	1.733	40	46816	97.84	ug/L #	82
24) Methylene Chloride	1.821	49	118175	20.24	ug/L	99
25) Tert Butyl Alcohol	1.962	59	185482	210.07	ug/L	93
26) trans-1,2-Dichloroethene	2.027	61	151506	22.00	ug/L	98
27) Acrylonitrile	2.039	53	228823	111.47	ug/L	99
28) Hexane	2.250	57	143984	18.91	ug/L	99
29) Methyl Tert Butyl Ether	2.039	73	279190	20.81	ug/L	98
30) 1,1-Dichloroethane	2.380	63	207465	20.88	ug/L	100
31) Vinyl acetate	2.462	43	775407	51.99	ug/L	100
33) Di-isopropyl ether	2.468	45	336135	21.33	ug/L	90
34) Chloroprene	2.450	53	160383	21.11	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75826.D
Acq On : 20 May 2019 2:51 pm
Operator : firatt
Sample : ic6285-20
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 18:08:12 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Ethyl tert-butyl ether	2.791	59	238460	19.43	ug/L	99
36) Ethyl Acetate	3.026	43	359036	55.00	ug/L	99
37) 2,2-Dichloropropane	2.885	77	107697	20.59	ug/L	96
38) cis-1,2-Dichloroethene	2.902	61	179235	20.77	ug/L	98
39) 2-Butanone	2.955	43	271589	97.84	ug/L	95
40) Propionitrile	3.020	54	97345	99.19	ug/L	100
41) Methacrylonitrile	3.149	41	372003	101.94	ug/L	99
42) Bromochloromethane	3.120	128	70511	20.89	ug/L	93
43) Chloroform	3.220	83	222793	21.37	ug/L	97
44) Tetrahydrofuran	3.161	42	54259	20.65	ug/L #	73
45) 1,1,1-Trichloroethane	3.343	97	172622	20.56	ug/L	99
47) Cyclohexane	3.373	56	161777	19.10	ug/L	97
48) 1,1-Dichloropropene	3.508	75	160380	20.61	ug/L	96
50) Carbon Tetrachloride	3.490	119	137416	19.93	ug/L	97
52) Isobutyl Alcohol	3.796	43	105387	188.33	ug/L	97
53) Benzene	3.707	78	501406	21.02	ug/L	95
54) 1,2-Dichloroethane	3.760	62	165684	21.03	ug/L	99
55) 2,2,4-Trimethylpentane	3.801	57	373324	18.94	ug/L	96
56) tert-amyl methyl ether	3.866	73	225380	18.76	ug/L	94
57) Crotonaldehyde	4.089	41	63390	101.33	ug/L	99
58) n-Butyl Alcohol	4.501	56	20028m	130.69	ug/L	
59) Trichloroethene	4.383	95	132945	20.95	ug/L	98
60) Methylcyclohexane	4.548	83	194006	18.98	ug/L	99
61) Methyl Methacrylate	4.847	41	109344	20.16	ug/L	97
62) 1,2-Dichloropropane	4.630	63	120607	20.68	ug/L	99
63) Dibromomethane	4.753	93	86358	20.60	ug/L	94
64) 1,4-Dioxane	4.824	88	31529	408.70	ug/L	90
65) Bromodichloromethane	4.965	83	141154	19.87	ug/L	99
66) 2-Nitropropane	5.253	41	155179	93.13	ug/L	97
67) 2-Chloroethyl vinyl ether	5.358	63	149650	81.53	ug/L	100
68) 1-Bromo-2-Chloroethane	5.270	63	182798	20.95	ug/L	99
69) Epichlorohydrin	5.405	57	59956	91.72	ug/L	96
70) 4-Methyl-2-pentanone	5.699	43	648594	102.70	ug/L	99
71) cis-1,3-Dichloropropene	5.470	75	194702	19.59	ug/L	99
74) Toluene	5.817	91	552863	21.22	ug/L	100
75) Ethyl Methacrylate	6.322	69	171576	19.46	ug/L	99
76) trans-1,3-Dichloropropene	6.152	75	146061	18.16	ug/L	99
77) 1,1,2-Trichloroethane	6.351	83	104993	21.14	ug/L	97
78) Tetrachloroethene	6.440	166	162479	20.66	ug/L	97
79) 2-hexanone	6.716	43	446812	98.59	ug/L	100
80) 1,3-Dichloropropane	6.534	76	212704	20.48	ug/L	98
81) Dibromochloromethane	6.786	129	111621	18.90	ug/L	97
82) n-Butyl Acetate	6.904	43	484350	49.72	ug/L	97
83) 1,2-Dibromoethane	6.874	107	135393	20.16	ug/L	96
84) 1-Chlorohexane	7.480	91	156675	19.54	ug/L	99
85) Chlorobenzene	7.433	112	371643	20.87	ug/L	99
86) 1,1,1,2-Tetrachloroethane	7.550	131	115953	19.77	ug/L	98
87) Ethylbenzene	7.579	91	611820	21.20	ug/L	99
88) m,p-Xylene	7.715	91	942531	41.63	ug/L	100
89) o-Xylene	8.114	91	492564	20.51	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75826.D
Acq On : 20 May 2019 2:51 pm
Operator : firatt
Sample : ic6285-20
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 18:08:12 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

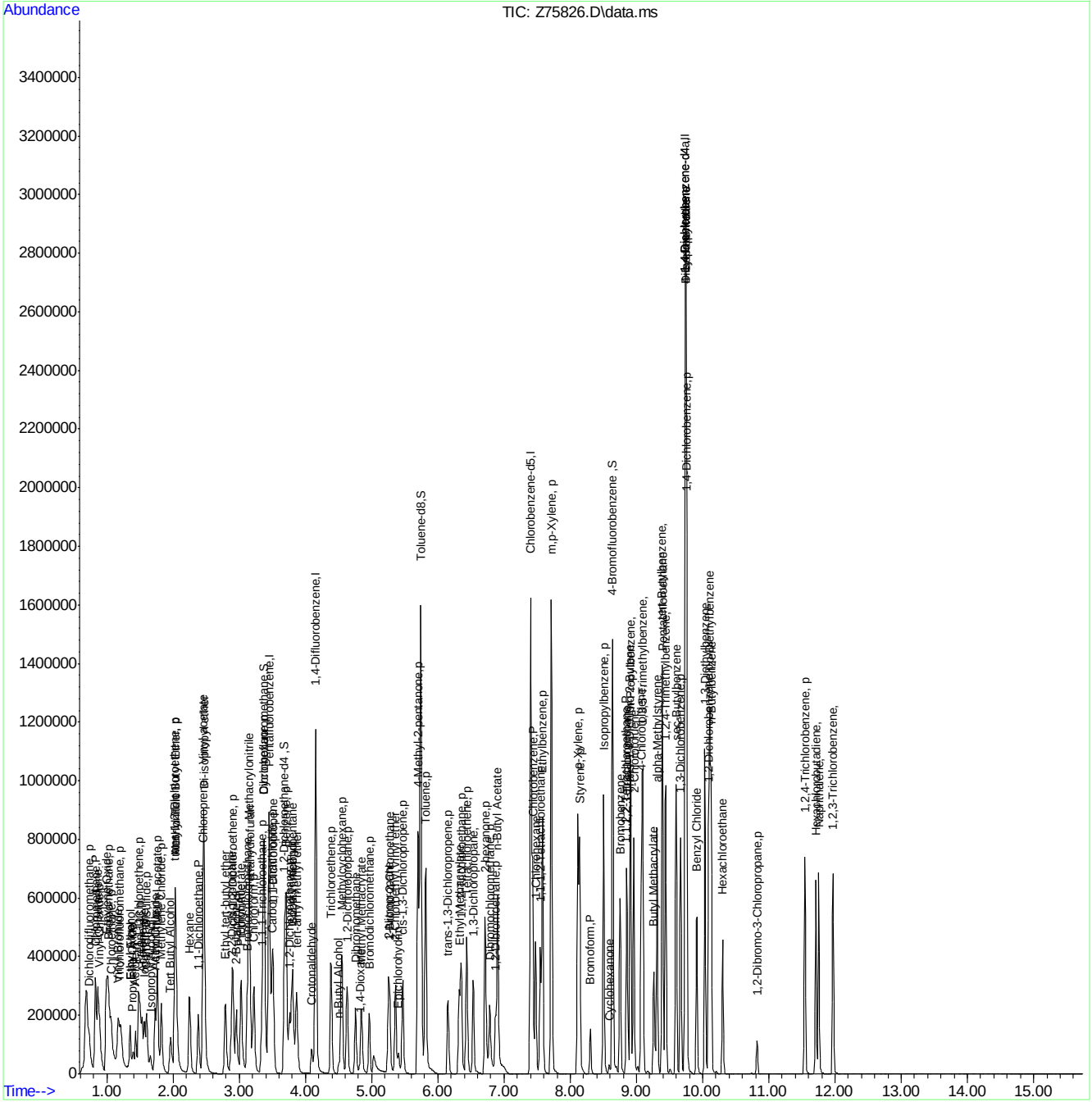
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90)	Styrene	8.143	104	380660	19.81	ug/L		99
91)	Bromoform	8.302	173	68166	17.45	ug/L		98
93)	Isopropylbenzene	8.502	105	593875	20.57	ug/L		99
94)	Cyclohexanone	8.590	55	17796	98.96	ug/L		97
96)	Bromobenzene	8.755	156	176863	20.55	ug/L		97
97)	1,1,2,2-Tetrachloroethane	8.849	83	177869	20.19	ug/L		97
98)	Trans-1,4-Dichloro-2-B...	8.901	53	24866	17.06	ug/L	#	74
99)	1,2,3-Trichloropropane	8.854	110	55976	20.04	ug/L		91
100)	n-Propylbenzene	8.907	91	701516	20.58	ug/L		97
101)	2-Chlorotoluene	8.960	91	432628	21.27	ug/L		99
102)	4-Chlorotoluene	9.072	91	497904	20.62	ug/L		100
103)	1,3,5-Trimethylbenzene	9.095	105	492784	20.39	ug/L		99
104)	Butyl Methacrylate	9.260	69	130001	17.16	ug/L		98
105)	alpha-Methylstyrene	9.313	118	237409	19.56	ug/L		98
106)	Pentachloroethane	9.395	167	74556	18.26	ug/L		98
107)	sec-Butylbenzene	9.601	105	641554	20.51	ug/L		99
108)	1,3-Dichlorobenzene	9.665	146	321787	20.59	ug/L		98
109)	4-Isopropyltoluene	9.748	119	551733	20.67	ug/L		99
110)	1,4-Dichlorobenzene	9.759	146	324254	20.59	ug/L		98
111)	tert-Butylbenzene	9.389	91	280700	20.78	ug/L		99
112)	Dicyclopentadiene	9.748	66	472467	20.81	ug/L		99
113)	n-Butylbenzene	10.129	91	597921	20.53	ug/L		99
114)	1,2-Dichlorobenzene	10.088	146	305972	20.48	ug/L		99
115)	1,2,4-Trimethylbenzene	9.442	105	503248	20.55	ug/L		98
116)	Benzyl Chloride	9.912	91	346579	15.09	ug/L		99
117)	p-Diethylbenzene	10.106	119	317835	20.50	ug/L		100
118)	Hexachloroethane	10.306	119	52629	18.07	ug/L		90
119)	1,2-Dibromo-3-Chloropr...	10.823	75	23909	18.13	ug/L		98
120)	1,2,4-Trichlorobenzene	11.545	180	213373	20.21	ug/L		98
121)	1,3-Diethylbenzene	10.035	119	321653	20.35	ug/L		98
122)	Hexachlorobutadiene	11.710	225	118005	20.73	ug/L		97
123)	Naphthalene	11.751	128	487971	20.54	ug/L		100
124)	1,2,3-Trichlorobenzene	11.969	180	193167	20.81	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75826.D
Acq On : 20 May 2019 2:51 pm
Operator : firatt
Sample : ic6285-20
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 18:08:12 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



Manual Integration Approval Summary

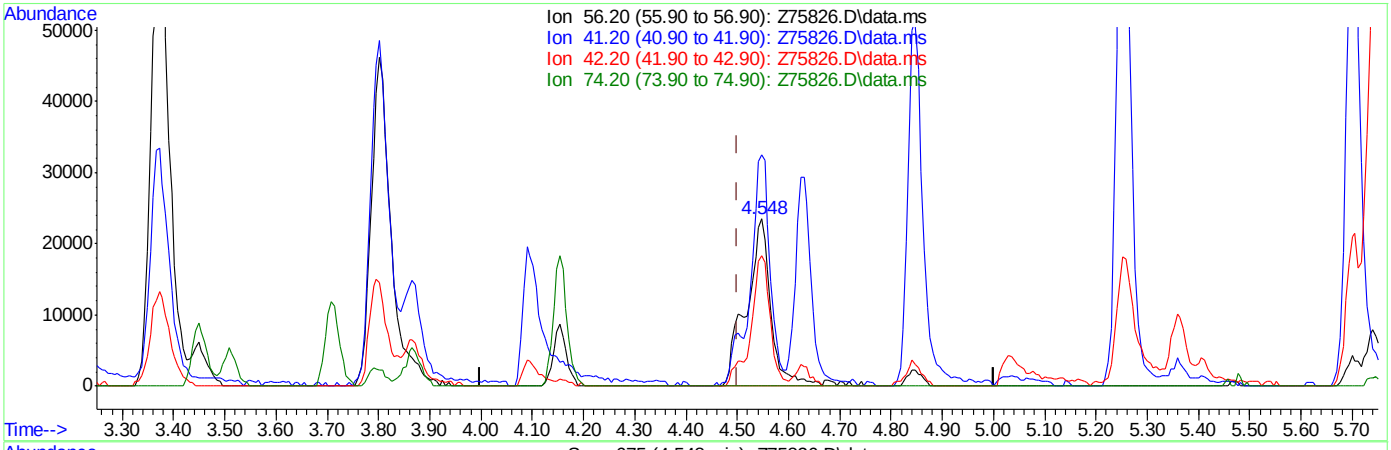
Sample Number:	VZ6285-IC6285	**Method:**	SW846 8260C
Lab FileID:	Z75826.D	**Analyst approved:**	05/21/19 08:05 Firat Tastan
Injection Time:	05/20/19 14:51	**Supervisor approved:**	05/21/19 13:17 John Watson

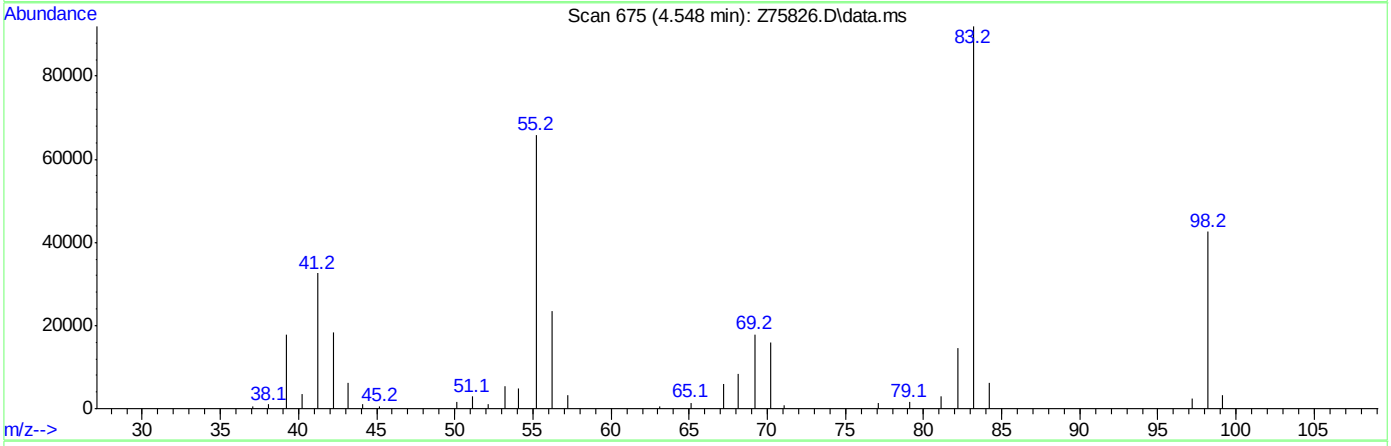
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butyl Alcohol	71-36-3		4.50	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75826.D
Acq On : 20 May 2019 2:51 pm
Operator : firatt
Sample : ic6285-20
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 17:56:19 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration





TIC: Z75826.D\data.ms

(58) n-Butyl Alcohol

4.548min (+0.047) 511.29ug/L

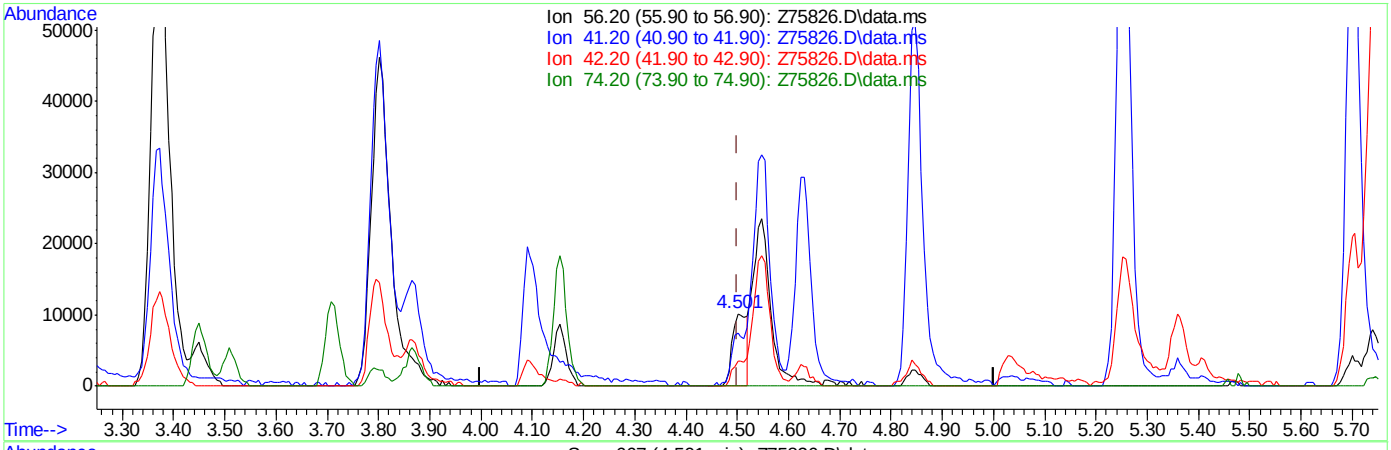
response 78356

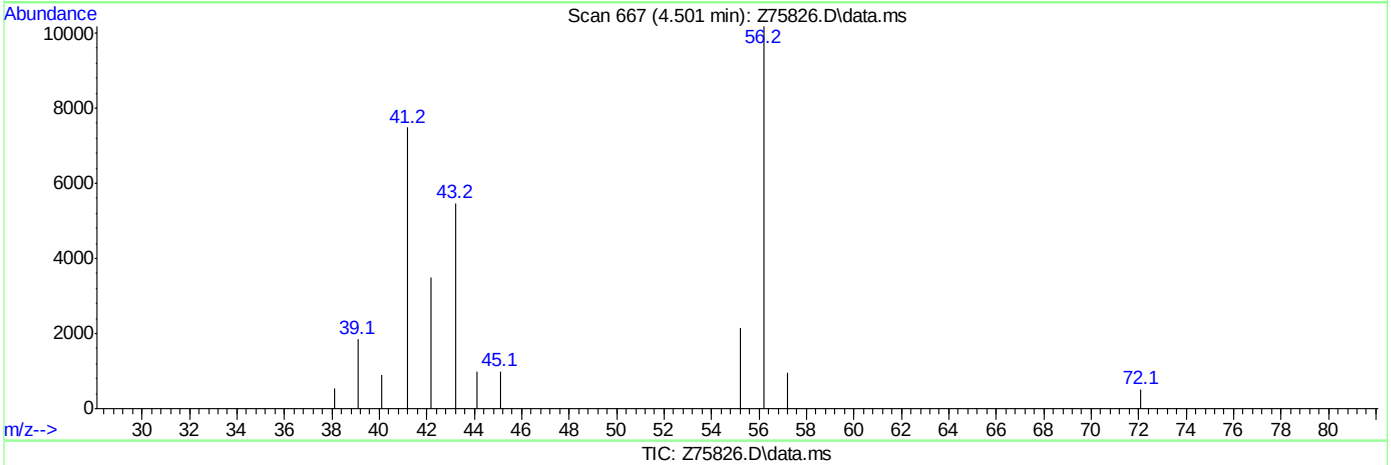
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	138.73#
42.20	28.80	78.08#
74.20	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75826.D
Acq On : 20 May 2019 2:51 pm
Operator : firatt
Sample : ic6285-20
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 17:56:19 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration





TIC: Z75826.D\data.ms

(58) n-Butyl Alcohol

4.501min (+0.000) 130.69ug/L m

response 20028

Ion	Exp%	Act%
56.20	100	100
41.20	62.00	73.55
42.20	28.80	34.43
74.20	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75827.D
Acq On : 20 May 2019 3:16 pm
Operator : firatt
Sample : icc6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 20 17:55:42 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:54:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	725789	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	1053018	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	959043	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	511662	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	511662	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.378	113	304414	50.00	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 100.00%			
51) 1,2-Dichloroethane-d4	3.684	65	338525	50.00	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 100.00%			
73) Toluene-d8	5.740	98	1172145	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 100.00%			
95) 4-Bromofluorobenzene	8.637	95	462025	50.00	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.740	85	326328	40.00	ug/L	100
3) Chloromethane	0.840	50	330193	40.00	ug/L	100
4) Vinyl Chloride	0.887	62	240340	40.00	ug/L	100
5) 1,3-Butadiene	0.869	54	171395	40.00	ug/L	100
6) Ethylene Oxide	0.993	44	2174698	2000.00	ug/L	100
7) Bromomethane	1.022	94	171139	40.00	ug/L	100
8) Chloroethane	1.069	64	138408	40.00	ug/L	100
9) Vinyl Bromide	1.169	106	178382	40.00	ug/L	100
10) Trichlorofluoromethane	1.204	101	331682	40.00	ug/L	100
11) Ethyl Alcohol	1.351	45	143198	400.00	ug/L	100
12) Ethyl Ether	1.351	59	170764	40.00	ug/L	100
13) Acrolein	1.433	56	238861	200.00	ug/L	100
14) 1,1-Dichloroethene	1.480	61	277393	40.00	ug/L	100
15) Freon 113	1.510	101	196092	40.00	ug/L	100
16) Acetone	1.539	43	328333	200.00	ug/L	100
17) Propylene Oxide	1.386	58	48218	40.00	ug/L	100
18) Isopropyl Alcohol	1.663	45	150232	400.00	ug/L	100
19) Iodomethane	1.569	142	391361	40.00	ug/L	100
20) Methyl acetate	1.762	43	844619	200.00	ug/L	100
21) Carbon Disulfide	1.604	76	514822	40.00	ug/L	100
22) Allyl Chloride	1.727	76	113200	40.00	ug/L	100
23) Acetonitrile	1.739	40	98679	200.00	ug/L	100
24) Methylene Chloride	1.821	49	240771	40.00	ug/L	100
25) Tert Butyl Alcohol	1.968	59	364156	400.00	ug/L	100
26) trans-1,2-Dichloroethene	2.027	61	284023	40.00	ug/L	100
27) Acrylonitrile	2.039	53	423324	200.00	ug/L	100
28) Hexane	2.250	57	314087	40.00	ug/L	100
29) Methyl Tert Butyl Ether	2.039	73	553392	40.00	ug/L	100
30) 1,1-Dichloroethane	2.385	63	409819	40.00	ug/L	100
31) Vinyl acetate	2.467	43	1537787	100.00	ug/L	100
33) Di-isopropyl ether	2.467	45	649842	40.00	ug/L	100
34) Chloroprene	2.456	53	313410	40.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75827.D
Acq On : 20 May 2019 3:16 pm
Operator : firatt
Sample : icc6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 20 17:55:42 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:54:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Ethyl tert-butyl ether	2.791	59	506168	40.00 ug/L	100
36) Ethyl Acetate	3.032	43	673108	100.00 ug/L	100
37) 2,2-Dichloropropane	2.885	77	215753	40.00 ug/L	100
38) cis-1,2-Dichloroethene	2.902	61	355890	40.00 ug/L	100
39) 2-Butanone	2.955	43	572404	200.00 ug/L	100
40) Propionitrile	3.026	54	202379	200.00 ug/L	100
41) Methacrylonitrile	3.149	41	752568	200.00 ug/L	100
42) Bromochloromethane	3.126	128	139199	40.00 ug/L	100
43) Chloroform	3.220	83	429975	40.00 ug/L	100
44) Tetrahydrofuran	3.161	42	108392	40.00 ug/L	100
45) 1,1,1-Trichloroethane	3.349	97	346268	40.00 ug/L	100
47) Cyclohexane	3.378	56	349303	40.00 ug/L	100
48) 1,1-Dichloropropene	3.507	75	320956	40.00 ug/L	100
50) Carbon Tetrachloride	3.496	119	282658	40.00 ug/L	100
52) Isobutyl Alcohol	3.795	43	229379	400.00 ug/L	100
53) Benzene	3.713	78	977953	40.00 ug/L	100
54) 1,2-Dichloroethane	3.760	62	322869	40.00 ug/L	100
55) 2,2,4-Trimethylpentane	3.807	57	807971	40.00 ug/L	100
56) tert-amyl methyl ether	3.872	73	492434	40.00 ug/L	100
57) Crotonaldehyde	4.089	41	128210	200.00 ug/L	100
58) n-Butyl Alcohol	4.500	56	62819	400.00 ug/L	100
59) Trichloroethene	4.389	95	260108	40.00 ug/L	100
60) Methylcyclohexane	4.547	83	419073	40.00 ug/L	100
61) Methyl Methacrylate	4.847	41	222296	40.00 ug/L	100
62) 1,2-Dichloropropane	4.630	63	239093	40.00 ug/L	100
63) Dibromomethane	4.753	93	171866	40.00 ug/L	100
64) 1,4-Dioxane	4.824	88	63245	800.00 ug/L	100
65) Bromodichloromethane	4.965	83	291169	40.00 ug/L	100
66) 2-Nitropropane	5.253	41	341522	200.00 ug/L	100
67) 2-Chloroethyl vinyl ether	5.358	63	376209	200.00 ug/L	100
68) 1-Bromo-2-Chloroethane	5.276	63	357604	40.00 ug/L	100
69) Epichlorohydrin	5.405	57	133981	200.00 ug/L	100
70) 4-Methyl-2-pentanone	5.705	43	1294340	200.00 ug/L	100
71) cis-1,3-Dichloropropene	5.470	75	407395	40.00 ug/L	100
74) Toluene	5.817	91	1076466	40.00 ug/L	100
75) Ethyl Methacrylate	6.322	69	364353	40.00 ug/L	100
76) trans-1,3-Dichloropropene	6.151	75	332436	40.00 ug/L	100
77) 1,1,2-Trichloroethane	6.351	83	205260	40.00 ug/L	100
78) Tetrachloroethene	6.439	166	324944	40.00 ug/L	100
79) 2-hexanone	6.716	43	936419	200.00 ug/L	100
80) 1,3-Dichloropropane	6.533	76	429098	40.00 ug/L	100
81) Dibromochloromethane	6.786	129	244026	40.00 ug/L	100
82) n-Butyl Acetate	6.904	43	1006404	100.00 ug/L	100
83) 1,2-Dibromoethane	6.874	107	277543	40.00 ug/L	100
84) 1-Chlorohexane	7.479	91	331299	40.00 ug/L	100
85) Chlorobenzene	7.432	112	735963	40.00 ug/L	100
86) 1,1,1,2-Tetrachloroethane	7.550	131	242379	40.00 ug/L	100
87) Ethylbenzene	7.579	91	1192648	40.00 ug/L	100
88) m,p-Xylene	7.714	91	1871365	80.00 ug/L	100
89) o-Xylene	8.114	91	992238	40.00 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75827.D
Acq On : 20 May 2019 3:16 pm
Operator : firatt
Sample : icc6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 20 17:55:42 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:54:52 2019
Response via : Initial Calibration

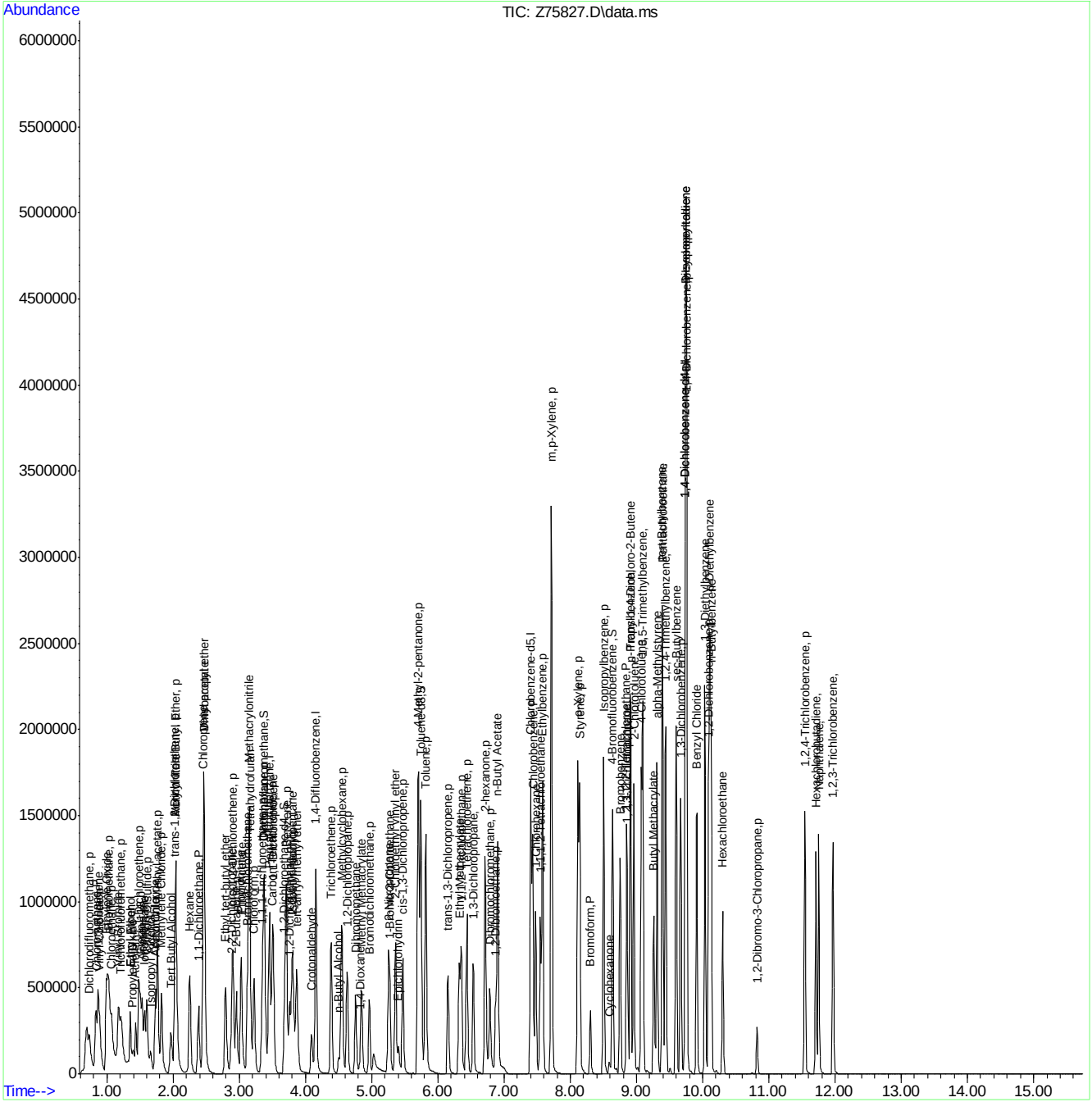
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	Styrene	8.143	104	794055	40.00	ug/L	100
91)	Bromoform	8.302	173	161380	40.00	ug/L	100
93)	Isopropylbenzene	8.502	105	1192421	40.00	ug/L	100
94)	Cyclohexanone	8.590	55	37131	200.00	ug/L	100
96)	Bromobenzene	8.754	156	355416	40.00	ug/L	100
97)	1,1,2,2-Tetrachloroethane	8.848	83	363791	40.00	ug/L	100
98)	Trans-1,4-Dichloro-2-B...	8.907	53	60210	40.00	ug/L	100
99)	1,2,3-Trichloropropane	8.860	110	115329	40.00	ug/L	100
100)	n-Propylbenzene	8.913	91	1407854	40.00	ug/L	100
101)	2-Chlorotoluene	8.960	91	840164	40.00	ug/L	100
102)	4-Chlorotoluene	9.072	91	996950	40.00	ug/L	100
103)	1,3,5-Trimethylbenzene	9.095	105	998145	40.00	ug/L	100
104)	Butyl Methacrylate	9.260	69	312915	40.00	ug/L	100
105)	alpha-Methylstyrene	9.313	118	501321	40.00	ug/L	100
106)	Pentachloroethane	9.395	167	168631	40.00	ug/L	100
107)	sec-Butylbenzene	9.600	105	1291499	40.00	ug/L	100
108)	1,3-Dichlorobenzene	9.671	146	645475	40.00	ug/L	100
109)	4-Isopropyltoluene	9.747	119	1102331	40.00	ug/L	100
110)	1,4-Dichlorobenzene	9.759	146	650238	40.00	ug/L	100
111)	tert-Butylbenzene	9.389	91	557865	40.00	ug/L	100
112)	Dicyclopentadiene	9.747	66	937708	40.00	ug/L	100
113)	n-Butylbenzene	10.129	91	1202863	40.00	ug/L	100
114)	1,2-Dichlorobenzene	10.088	146	616828	40.00	ug/L	100
115)	1,2,4-Trimethylbenzene	9.442	105	1011193	40.00	ug/L	100
116)	Benzyl Chloride	9.912	91	948789	40.00	ug/L	100
117)	p-Diethylbenzene	10.106	119	640150	40.00	ug/L	100
118)	Hexachloroethane	10.306	119	120309	40.00	ug/L	100
119)	1,2-Dibromo-3-Chloropr...	10.823	75	54455	40.00	ug/L	100
120)	1,2,4-Trichlorobenzene	11.545	180	435943	40.00	ug/L	100
121)	1,3-Diethylbenzene	10.035	119	652881	40.00	ug/L	100
122)	Hexachlorobutadiene	11.710	225	235130	40.00	ug/L	100
123)	Naphthalene	11.751	128	981316	40.00	ug/L	100
124)	1,2,3-Trichlorobenzene	11.968	180	383363	40.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75827.D
Acq On : 20 May 2019 3:16 pm
Operator : firatt
Sample : icc6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 20 17:55:42 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:54:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75828.D
Acq On : 20 May 2019 3:41 pm
Operator : firatt
Sample : ic6285-70
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 20 18:09:05 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	753015	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	1100463	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	1001441	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	528183	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	528183	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	314000	49.71	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 99.42%			
51) 1,2-Dichloroethane-d4	3.684	65	351123	49.62	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 99.24%			
73) Toluene-d8	5.746	98	1201956	49.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 98.20%			
95) 4-Bromofluorobenzene	8.637	95	482578	50.59	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 101.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	659797	77.95	ug/L	98
3) Chloromethane	0.834	50	710640	82.98	ug/L	96
4) Vinyl Chloride	0.881	62	541495	86.86	ug/L	99
5) 1,3-Butadiene	0.864	54	369661	83.15	ug/L	96
6) Ethylene Oxide	0.987	44	3554927	3151.15	ug/L	99
7) Bromomethane	1.016	94	293301	66.07	ug/L	98
8) Chloroethane	1.063	64	231514	64.49	ug/L	99
9) Vinyl Bromide	1.163	106	308607	66.70	ug/L	97
10) Trichlorofluoromethane	1.198	101	605190	70.35	ug/L	93
11) Ethyl Alcohol	1.351	45	249938	672.92	ug/L	99
12) Ethyl Ether	1.351	59	308893	69.74	ug/L	98
13) Acrolein	1.434	56	434572	350.71	ug/L	95
14) 1,1-Dichloroethene	1.475	61	507410	70.52	ug/L	99
15) Freon 113	1.504	101	362761	71.32	ug/L	99
16) Acetone	1.533	43	591334	347.18	ug/L	99
17) Propylene Oxide	1.387	58	88215	70.53	ug/L	100
18) Isopropyl Alcohol	1.657	45	279839	718.15	ug/L	96
19) Iodomethane	1.569	142	718613	70.79	ug/L	99
20) Methyl acetate	1.763	43	1431617	326.74	ug/L	99
21) Carbon Disulfide	1.598	76	977922	73.23	ug/L	100
22) Allyl Chloride	1.727	76	212576	72.40	ug/L	99
23) Acetonitrile	1.733	40	168666	329.49	ug/L #	82
24) Methylene Chloride	1.821	49	416366	66.67	ug/L	97
25) Tert Butyl Alcohol	1.968	59	682158	722.21	ug/L	96
26) trans-1,2-Dichloroethene	2.021	61	557102	75.62	ug/L	98
27) Acrylonitrile	2.039	53	831684	378.72	ug/L	99
28) Hexane	2.244	57	578321	70.99	ug/L	99
29) Methyl Tert Butyl Ether	2.039	73	1096431	76.39	ug/L	99
30) 1,1-Dichloroethane	2.379	63	757955	71.30	ug/L	100
31) Vinyl acetate	2.462	43	2764550	173.27	ug/L	100
33) Di-isopropyl ether	2.468	45	1174693	69.69	ug/L	96
34) Chloroprene	2.450	53	575991	70.85	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75828.D
Acq On : 20 May 2019 3:41 pm
Operator : firatt
Sample : ic6285-70
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 20 18:09:05 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Ethyl tert-butyl ether	2.791	59	1002674	76.37	ug/L	100
36) Ethyl Acetate	3.026	43	1217331	174.31	ug/L	99
37) 2,2-Dichloropropane	2.885	77	406866	72.70	ug/L	100
38) cis-1,2-Dichloroethene	2.902	61	647268	70.12	ug/L	99
39) 2-Butanone	2.955	43	1075982	362.36	ug/L	97
40) Propionitrile	3.020	54	378821	360.83	ug/L	98
41) Methacrylonitrile	3.149	41	1367546	350.29	ug/L	100
42) Bromochloromethane	3.120	128	256244	70.97	ug/L	96
43) Chloroform	3.220	83	795250	71.31	ug/L	98
44) Tetrahydrofuran	3.161	42	199165	70.84	ug/L #	87
45) 1,1,1-Trichloroethane	3.343	97	657419	73.20	ug/L	99
47) Cyclohexane	3.372	56	653726	72.15	ug/L	99
48) 1,1-Dichloropropene	3.508	75	596374	71.64	ug/L	97
50) Carbon Tetrachloride	3.496	119	545364	73.85	ug/L	100
52) Isobutyl Alcohol	3.801	43	420454	701.59	ug/L	100
53) Benzene	3.707	78	1818256	71.16	ug/L	99
54) 1,2-Dichloroethane	3.760	62	602425	71.42	ug/L	98
55) 2,2,4-Trimethylpentane	3.807	57	1474142	69.83	ug/L	99
56) tert-amyl methyl ether	3.866	73	986377	76.67	ug/L	99
57) Crotonaldehyde	4.089	41	249052	371.76	ug/L	96
58) n-Butyl Alcohol	4.501	56	140055	853.35	ug/L	98
59) Trichloroethene	4.383	95	491752	72.36	ug/L	97
60) Methylcyclohexane	4.548	83	777298	70.99	ug/L	99
61) Methyl Methacrylate	4.847	41	409471	70.50	ug/L	96
62) 1,2-Dichloropropane	4.630	63	442409	70.82	ug/L	99
63) Dibromomethane	4.753	93	319301	71.11	ug/L	98
64) 1,4-Dioxane	4.818	88	122688	1485.00	ug/L	97
65) Bromodichloromethane	4.965	83	558414	73.41	ug/L	97
66) 2-Nitropropane	5.259	41	657212	368.28	ug/L	97
67) 2-Chloroethyl vinyl ether	5.364	63	804767	409.38	ug/L	97
68) 1-Bromo-2-Chloroethane	5.276	63	651575	69.74	ug/L	99
69) Epichlorohydrin	5.405	57	261086	372.93	ug/L	98
70) 4-Methyl-2-pentanone	5.705	43	2348068	347.18	ug/L	99
71) cis-1,3-Dichloropropene	5.470	75	790351	74.25	ug/L	99
74) Toluene	5.817	91	1983885	70.60	ug/L	100
75) Ethyl Methacrylate	6.322	69	698233	73.41	ug/L	99
76) trans-1,3-Dichloropropene	6.152	75	674692	77.74	ug/L	99
77) 1,1,2-Trichloroethane	6.351	83	380294	70.97	ug/L	98
78) Tetrachloroethene	6.439	166	609804	71.89	ug/L	97
79) 2-hexanone	6.716	43	1761904	360.38	ug/L	99
80) 1,3-Dichloropropane	6.534	76	792089	70.71	ug/L	99
81) Dibromochloromethane	6.786	129	480014	75.35	ug/L	100
82) n-Butyl Acetate	6.904	43	1870271	177.97	ug/L	98
83) 1,2-Dibromoethane	6.874	107	516221	71.25	ug/L	98
84) 1-Chlorohexane	7.479	91	636128	73.55	ug/L	98
85) Chlorobenzene	7.432	112	1374786	71.56	ug/L	98
86) 1,1,1,2-Tetrachloroethane	7.550	131	472651	74.70	ug/L	99
87) Ethylbenzene	7.579	91	2217527	71.22	ug/L	99
88) m,p-Xylene	7.715	91	3391788	138.86	ug/L	99
89) o-Xylene	8.114	91	1834193	70.81	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75828.D
Acq On : 20 May 2019 3:41 pm
Operator : firatt
Sample : ic6285-70
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 20 18:09:05 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

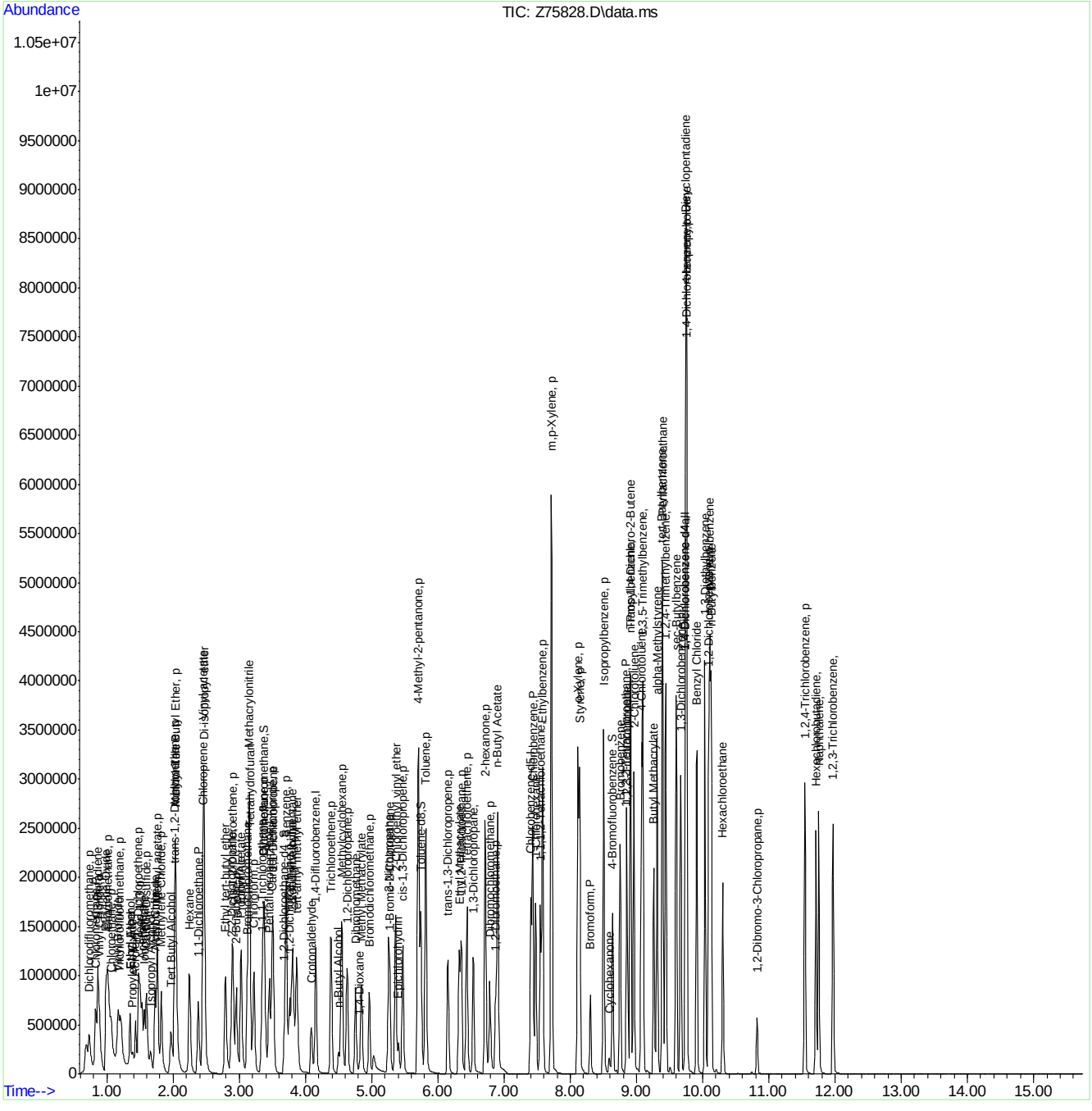
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	Styrene	8.143	104	1483053	71.54	ug/L	99
91)	Bromoform	8.302	173	342851	81.38	ug/L	98
93)	Isopropylbenzene	8.502	105	2223721	72.26	ug/L	99
94)	Cyclohexanone	8.590	55	75030	391.50	ug/L	96
96)	Bromobenzene	8.754	156	671273	73.18	ug/L	99
97)	1,1,2,2-Tetrachloroethane	8.848	83	674584	71.85	ug/L	99
98)	Trans-1,4-Dichloro-2-B...	8.907	53	121381	78.12	ug/L	92
99)	1,2,3-Trichloropropane	8.860	110	212984	71.56	ug/L	97
100)	n-Propylbenzene	8.913	91	2595304	71.43	ug/L	99
101)	2-Chlorotoluene	8.960	91	1559528	71.93	ug/L	100
102)	4-Chlorotoluene	9.072	91	1827086	71.01	ug/L	100
103)	1,3,5-Trimethylbenzene	9.095	105	1854916	72.01	ug/L	99
104)	Butyl Methacrylate	9.260	69	677751	83.93	ug/L	99
105)	alpha-Methylstyrene	9.313	118	953527	73.70	ug/L	98
106)	Pentachloroethane	9.395	167	336625	77.35	ug/L	99
107)	sec-Butylbenzene	9.601	105	2400331	72.02	ug/L	98
108)	1,3-Dichlorobenzene	9.671	146	1196025	71.80	ug/L	99
109)	4-Isopropyltoluene	9.753	119	2025652	71.21	ug/L	99
110)	1,4-Dichlorobenzene	9.759	146	1191465	71.00	ug/L	99
111)	tert-Butylbenzene	9.389	91	1031790	71.67	ug/L	99
112)	Dicyclopentadiene	9.747	66	1718346	71.01	ug/L	99
113)	n-Butylbenzene	10.129	91	2165275	69.75	ug/L	99
114)	1,2-Dichlorobenzene	10.094	146	1149372	72.20	ug/L	99
115)	1,2,4-Trimethylbenzene	9.442	105	1895121	72.62	ug/L	99
116)	Benzyl Chloride	9.912	91	2056296	83.98	ug/L	99
117)	p-Diethylbenzene	10.112	119	1194226	72.29	ug/L	93
118)	Hexachloroethane	10.306	119	262658	84.60	ug/L	94
119)	1,2-Dibromo-3-Chloropr...	10.823	75	114617	81.56	ug/L	96
120)	1,2,4-Trichlorobenzene	11.545	180	857659	76.23	ug/L	99
121)	1,3-Diethylbenzene	10.035	119	1229326	72.96	ug/L	100
122)	Hexachlorobutadiene	11.710	225	459655	75.75	ug/L	99
123)	Naphthalene	11.751	128	1900303	75.04	ug/L	100
124)	1,2,3-Trichlorobenzene	11.968	180	730382	73.82	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75828.D
Acq On : 20 May 2019 3:41 pm
Operator : firatt
Sample : ic6285-70
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 20 18:09:05 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75829.D
Acq On : 20 May 2019 4:05 pm
Operator : firatt
Sample : ic6285-100
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 20 18:10:00 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	773878	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	1115624	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	1033799	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	545813	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	545813	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.378	113	315732	48.64	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 97.28%			
51) 1,2-Dichloroethane-d4	3.684	65	354126	49.37	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 98.74%			
73) Toluene-d8	5.746	98	1226479	48.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 97.06%			
95) 4-Bromofluorobenzene	8.637	95	491763	49.89	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 99.78%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	909228	104.52	ug/L	95
3) Chloromethane	0.834	50	1007422	114.46	ug/L	96
4) Vinyl Chloride	0.887	62	744253	116.17	ug/L	98
5) 1,3-Butadiene	0.864	54	527745	115.51	ug/L	96
6) Ethylene Oxide	0.993	44	4788104	4129.83	ug/L	98
7) Bromomethane	1.016	94	370620	81.24	ug/L	97
8) Chloroethane	1.069	64	289475	78.46	ug/L	99
9) Vinyl Bromide	1.163	106	440720	92.69	ug/L	100
10) Trichlorofluoromethane	1.204	101	841902	95.22	ug/L	95
11) Ethyl Alcohol	1.351	45	335618	879.24	ug/L	99
12) Ethyl Ether	1.351	59	422359	92.79	ug/L	97
13) Acrolein	1.434	56	590952	464.06	ug/L	97
14) 1,1-Dichloroethene	1.480	61	707679	95.71	ug/L	99
15) Freon 113	1.510	101	501314	95.91	ug/L	98
16) Acetone	1.539	43	831096	474.79	ug/L	100
17) Propylene Oxide	1.392	58	128162	99.71	ug/L	96
18) Isopropyl Alcohol	1.669	45	385303	962.14	ug/L	96
19) Iodomethane	1.569	142	1002755	96.12	ug/L	99
20) Methyl acetate	1.763	43	2021470	448.93	ug/L	98
21) Carbon Disulfide	1.598	76	1377395	100.37	ug/L	99
22) Allyl Chloride	1.727	76	296150	98.14	ug/L	90
23) Acetonitrile	1.739	40	241625	459.29	ug/L	94
24) Methylene Chloride	1.821	49	589067	91.78	ug/L	97
25) Tert Butyl Alcohol	1.974	59	977533	1007.03	ug/L	94
26) trans-1,2-Dichloroethene	2.027	61	753244	99.49	ug/L	97
27) Acrylonitrile	2.045	53	1098529	486.75	ug/L	100
28) Hexane	2.250	57	828851	99.00	ug/L	98
29) Methyl Tert Butyl Ether	2.045	73	1478136	100.20	ug/L	99
30) 1,1-Dichloroethane	2.385	63	1081063	98.96	ug/L	98
31) Vinyl acetate	2.468	43	3858088	235.30	ug/L	99
33) Di-isopropyl ether	2.473	45	1637688	94.54	ug/L	90
34) Chloroprene	2.456	53	805894	96.46	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75829.D
Acq On : 20 May 2019 4:05 pm
Operator : firatt
Sample : ic6285-100
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 20 18:10:00 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Ethyl tert-butyl ether	2.797	59	1528865	113.31	ug/L	98
36) Ethyl Acetate	3.032	43	1765627	246.01	ug/L	100
37) 2,2-Dichloropropane	2.885	77	565339	98.30	ug/L	100
38) cis-1,2-Dichloroethene	2.902	61	916002	96.56	ug/L	96
39) 2-Butanone	2.955	43	1558134	510.59	ug/L	98
40) Propionitrile	3.026	54	551002	510.69	ug/L	98
41) Methacrylonitrile	3.155	41	1925964	480.03	ug/L	99
42) Bromochloromethane	3.120	128	373997	100.79	ug/L	97
43) Chloroform	3.226	83	1128650	98.47	ug/L	98
44) Tetrahydrofuran	3.161	42	278069	96.24	ug/L #	71
45) 1,1,1-Trichloroethane	3.349	97	944378	102.31	ug/L	98
47) Cyclohexane	3.372	56	932388	100.14	ug/L	100
48) 1,1-Dichloropropene	3.513	75	851682	99.55	ug/L	97
50) Carbon Tetrachloride	3.496	119	794036	106.06	ug/L	99
52) Isobutyl Alcohol	3.801	43	623640	1026.50	ug/L	94
53) Benzene	3.713	78	2603813	100.52	ug/L	98
54) 1,2-Dichloroethane	3.760	62	869803	101.71	ug/L	98
55) 2,2,4-Trimethylpentane	3.807	57	2113958	98.78	ug/L	90
56) tert-amyl methyl ether	3.872	73	1505869	115.46	ug/L	96
57) Crotonaldehyde	4.089	41	372506	548.48	ug/L	96
58) n-Butyl Alcohol	4.501	56	213299	1281.96	ug/L	98
59) Trichloroethene	4.389	95	705339	102.38	ug/L	99
60) Methylcyclohexane	4.548	83	1117848	100.71	ug/L	99
61) Methyl Methacrylate	4.847	41	591850	100.52	ug/L	99
62) 1,2-Dichloropropane	4.630	63	632198	99.83	ug/L	99
63) Dibromomethane	4.759	93	462275	101.55	ug/L	97
64) 1,4-Dioxane	4.824	88	182454	2178.39	ug/L	94
65) Bromodichloromethane	4.965	83	821480	106.52	ug/L	98
66) 2-Nitropropane	5.258	41	957988	529.53	ug/L	97
67) 2-Chloroethyl vinyl ether	5.364	63	1296457	650.54	ug/L	97
68) 1-Bromo-2-Chloroethane	5.276	63	923197	97.47	ug/L	99
69) Epichlorohydrin	5.411	57	375533	529.12	ug/L	97
70) 4-Methyl-2-pentanone	5.705	43	3324919	484.93	ug/L	99
71) cis-1,3-Dichloropropene	5.470	75	1142054	105.84	ug/L	98
74) Toluene	5.823	91	2836934	97.79	ug/L	100
75) Ethyl Methacrylate	6.322	69	1014790	103.35	ug/L	99
76) trans-1,3-Dichloropropene	6.152	75	998041	111.40	ug/L	99
77) 1,1,2-Trichloroethane	6.357	83	546054	98.72	ug/L	98
78) Tetrachloroethene	6.439	166	877834	100.25	ug/L	99
79) 2-hexanone	6.716	43	2541045	503.47	ug/L	97
80) 1,3-Dichloropropane	6.534	76	1141572	98.72	ug/L	99
81) Dibromochloromethane	6.792	129	712674	108.37	ug/L	99
82) n-Butyl Acetate	6.904	43	2692143	248.16	ug/L	96
83) 1,2-Dibromoethane	6.874	107	753228	100.71	ug/L	95
84) 1-Chlorohexane	7.479	91	929399	104.10	ug/L	97
85) Chlorobenzene	7.432	112	1982605	99.96	ug/L	99
86) 1,1,1,2-Tetrachloroethane	7.550	131	688162	105.36	ug/L	99
87) Ethylbenzene	7.585	91	3160788	98.34	ug/L	98
88) m,p-Xylene	7.714	91	4797645	190.27	ug/L	99
89) o-Xylene	8.114	91	2642915	98.84	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75829.D
Acq On : 20 May 2019 4:05 pm
Operator : firatt
Sample : ic6285-100
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 20 18:10:00 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	Styrene	8.143	104	2144173	100.20	ug/L	99
91)	Bromoform	8.302	173	533440	122.66	ug/L	98
93)	Isopropylbenzene	8.502	105	3173411	99.79	ug/L	99
94)	Cyclohexanone	8.590	55	119334	602.56	ug/L	96
96)	Bromobenzene	8.754	156	973507	102.71	ug/L	100
97)	1,1,2,2-Tetrachloroethane	8.848	83	981341	101.15	ug/L	100
98)	Trans-1,4-Dichloro-2-B...	8.907	53	180737	112.56	ug/L	89
99)	1,2,3-Trichloropropane	8.860	110	303852	98.79	ug/L	97
100)	n-Propylbenzene	8.913	91	3639127	96.93	ug/L	98
101)	2-Chlorotoluene	8.960	91	2218551	99.02	ug/L	99
102)	4-Chlorotoluene	9.072	91	2625970	98.77	ug/L	99
103)	1,3,5-Trimethylbenzene	9.095	105	2667264	100.20	ug/L	98
104)	Butyl Methacrylate	9.260	69	1054763	126.39	ug/L	100
105)	alpha-Methylstyrene	9.313	118	1409853	105.45	ug/L	98
106)	Pentachloroethane	9.395	167	509135	113.21	ug/L	99
107)	sec-Butylbenzene	9.601	105	3461263	100.49	ug/L	98
108)	1,3-Dichlorobenzene	9.671	146	1726773	100.31	ug/L	99
109)	4-Isopropyltoluene	9.753	119	2901288	98.69	ug/L	98
110)	1,4-Dichlorobenzene	9.759	146	1704133	98.27	ug/L	99
111)	tert-Butylbenzene	9.395	91	1479441	99.44	ug/L	96
112)	Dicyclopentadiene	9.747	66	2424281	96.94	ug/L	98
113)	n-Butylbenzene	10.129	91	3133836	97.69	ug/L	97
114)	1,2-Dichlorobenzene	10.094	146	1679055	102.07	ug/L	99
115)	1,2,4-Trimethylbenzene	9.442	105	2734642	101.41	ug/L	100
116)	Benzyl Chloride	9.912	91	3202114	126.55	ug/L	99
117)	p-Diethylbenzene	10.112	119	1751329	102.59	ug/L	95
118)	Hexachloroethane	10.306	119	415543	129.51	ug/L	93
119)	1,2-Dibromo-3-Chloropr...	10.823	75	183981	126.69	ug/L	91
120)	1,2,4-Trichlorobenzene	11.545	180	1329923	114.39	ug/L	99
121)	1,3-Diethylbenzene	10.035	119	1806953	103.78	ug/L	100
122)	Hexachlorobutadiene	11.716	225	712757	113.67	ug/L	99
123)	Naphthalene	11.757	128	2931067	112.00	ug/L	100
124)	1,2,3-Trichlorobenzene	11.968	180	1130069	110.53	ug/L	99

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

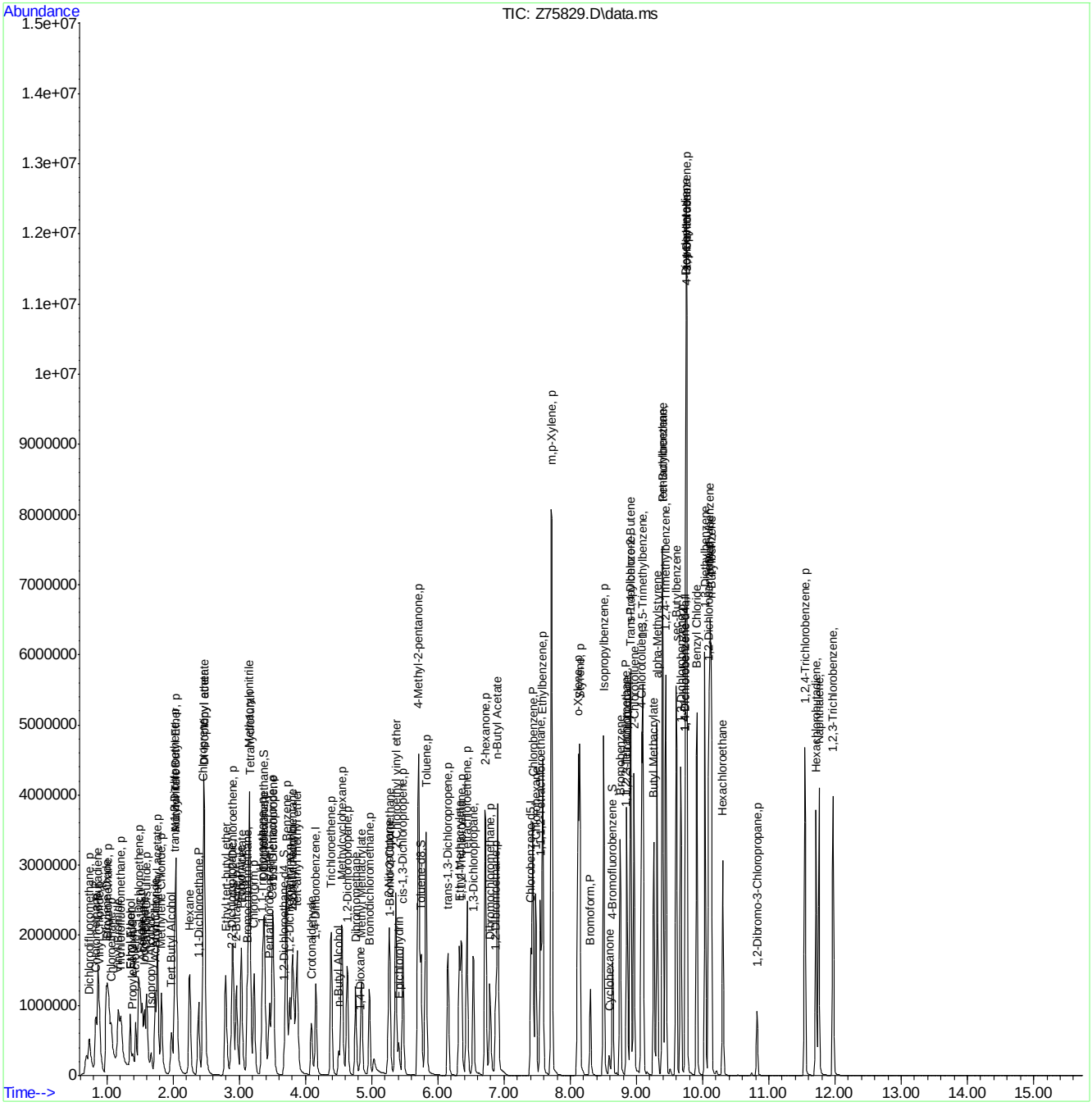
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75829.D
Acq On : 20 May 2019 4:05 pm
Operator : firatt
Sample : ic6285-100
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 20 18:10:00 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/21/19 13:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75830.D
Acq On : 20 May 2019 4:30 pm
Operator : firatt
Sample : ic6285-200
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 20 18:11:23 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	811823	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.160	114	1151603	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	1075677	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.742	152	558786	50.00	ug/L	# 0.00
125) 1,4-Dichlorobenzene-d4a	9.742	152	558786	50.00	ug/L	# 0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.378	113	323840	47.55	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 95.10%			
51) 1,2-Dichloroethane-d4	3.684	65	365264	49.33	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 98.66%			
73) Toluene-d8	5.746	98	1271508	48.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 96.72%			
95) 4-Bromofluorobenzene	8.643	95	504430	49.99	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 99.98%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	1600438	175.39	ug/L	97
3) Chloromethane	0.840	50	1945514	210.71	ug/L	94
4) Vinyl Chloride	0.887	62	1472030	219.03	ug/L	99
5) 1,3-Butadiene	0.864	54	979001	204.27	ug/L	98
6) Ethylene Oxide	0.993	44	8650812	7112.74	ug/L	97
7) Bromomethane	1.016	94	508660	106.29	ug/L	97
8) Chloroethane	1.063	64	490266	126.67	ug/L	98
9) Vinyl Bromide	1.163	106	774843	155.34	ug/L	100
10) Trichlorofluoromethane	1.204	101	1396279	150.54	ug/L	97
11) Ethyl Alcohol	1.351	45	574901	1435.70	ug/L	97
12) Ethyl Ether	1.351	59	779641	163.27	ug/L	95
13) Acrolein	1.439	56	1090944	816.65	ug/L	93
14) 1,1-Dichloroethene	1.475	61	1372635	176.96	ug/L	98
15) Freon 113	1.504	101	868311	158.35	ug/L	96
16) Acetone	1.539	43	1587629	864.60	ug/L	98
17) Propylene Oxide	1.392	58	245971	182.42	ug/L	97
18) Isopropyl Alcohol	1.680	45	767537	1827.03	ug/L	95
19) Iodomethane	1.569	142	2068624	189.02	ug/L	97
20) Methyl acetate	1.768	43	3912375	828.24	ug/L	96
21) Carbon Disulfide	1.598	76	2797233	194.30	ug/L	99
22) Allyl Chloride	1.727	76	620506	196.02	ug/L #	86
23) Acetonitrile	1.739	40	448327	812.36	ug/L #	88
24) Methylene Chloride	1.821	49	1177267	174.86	ug/L	96
25) Tert Butyl Alcohol	1.986	59	2018242	1981.96	ug/L	94
26) trans-1,2-Dichloroethene	2.027	61	1583079	199.32	ug/L	98
27) Acrylonitrile	2.045	53	2357983	995.97	ug/L	99
28) Hexane	2.250	57	1432803	163.13	ug/L	99
29) Methyl Tert Butyl Ether	2.050	73	3072920	198.58	ug/L	99
30) 1,1-Dichloroethane	2.380	63	2220925	193.80	ug/L	99
31) Vinyl acetate	2.468	43	7153610	415.89	ug/L	97
33) Di-isopropyl ether	2.474	45	3032533	166.88	ug/L	98
34) Chloroprene	2.450	53	1606949	183.36	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75830.D
Acq On : 20 May 2019 4:30 pm
Operator : firatt
Sample : ic6285-200
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 20 18:11:23 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Ethyl tert-butyl ether	2.797	59	3090651	218.36	ug/L	98
36) Ethyl Acetate	3.038	43	3441369	457.08	ug/L	99
37) 2,2-Dichloropropane	2.885	77	1055639	174.97	ug/L	96
38) cis-1,2-Dichloroethene	2.902	61	1830799	183.96	ug/L	98
39) 2-Butanone	2.961	43	3125363	976.29	ug/L	95
40) Propionitrile	3.032	54	1080415	954.56	ug/L	99
41) Methacrylonitrile	3.161	41	3666004	871.02	ug/L	98
42) Bromochloromethane	3.126	128	768882	197.53	ug/L	98
43) Chloroform	3.226	83	2264421	188.33	ug/L	98
44) Tetrahydrofuran	3.173	42	530874	175.15	ug/L	94
45) 1,1,1-Trichloroethane	3.349	97	1924413	198.74	ug/L	98
47) Cyclohexane	3.372	56	1708447	174.91	ug/L	99
48) 1,1-Dichloropropene	3.514	75	1693221	188.66	ug/L	96
50) Carbon Tetrachloride	3.496	119	1635782	211.67	ug/L	99
52) Isobutyl Alcohol	3.807	43	1126903	1796.91	ug/L	91
53) Benzene	3.713	78	5242729	196.08	ug/L	97
54) 1,2-Dichloroethane	3.760	62	1719418	194.78	ug/L	98
55) 2,2,4-Trimethylpentane	3.813	57	3681392	166.65	ug/L	80
56) tert-amyl methyl ether	3.878	73	3098705	230.16	ug/L	95
57) Crotonaldehyde	4.089	41	796181	1135.67	ug/L	98
58) n-Butyl Alcohol	4.506	56	484226m	2819.36	ug/L	
59) Trichloroethene	4.389	95	1436573	202.01	ug/L	98
60) Methylcyclohexane	4.548	83	2026906	176.90	ug/L	99
61) Methyl Methacrylate	4.847	41	1207887	198.74	ug/L	98
62) 1,2-Dichloropropane	4.630	63	1294036	197.96	ug/L	95
63) Dibromomethane	4.759	93	947007	201.54	ug/L	94
64) 1,4-Dioxane	4.830	88	369049	4268.55	ug/L	94
65) Bromodichloromethane	4.965	83	1726975	216.94	ug/L	100
66) 2-Nitropropane	5.270	41	1987090	1064.05	ug/L	97
67) 2-Chloroethyl vinyl ether	5.370	63	2961917	1439.82	ug/L	95
68) 1-Bromo-2-Chloroethane	5.282	63	1817423	185.89	ug/L	99
69) Epichlorohydrin	5.417	57	800654	1092.86	ug/L	99
70) 4-Methyl-2-pentanone	5.717	43	6173034	872.19	ug/L	95
71) cis-1,3-Dichloropropene	5.476	75	2371937	212.95	ug/L	99
74) Toluene	5.823	91	5573322	184.64	ug/L	99
75) Ethyl Methacrylate	6.328	69	2050305	200.68	ug/L	99
76) trans-1,3-Dichloropropene	6.152	75	2115966	227.00	ug/L	99
77) 1,1,2-Trichloroethane	6.357	83	1079384	187.54	ug/L	99
78) Tetrachloroethene	6.440	166	1796262	197.14	ug/L	98
79) 2-hexanone	6.727	43	4769932	908.30	ug/L	96
80) 1,3-Dichloropropane	6.539	76	2294056	190.66	ug/L	99
81) Dibromochloromethane	6.792	129	1510427	220.74	ug/L	99
82) n-Butyl Acetate	6.910	43	4984011	441.53	ug/L	94
83) 1,2-Dibromoethane	6.880	107	1534863	197.22	ug/L	97
84) 1-Chlorohexane	7.480	91	1853007	199.47	ug/L	98
85) Chlorobenzene	7.438	112	3948209	191.32	ug/L	99
86) 1,1,1,2-Tetrachloroethane	7.556	131	1423592	209.46	ug/L	99
87) Ethylbenzene	7.585	91	6062069	181.27	ug/L	97
88) m,p-Xylene	7.720	91	8799205	335.38	ug/L	94
89) o-Xylene	8.120	91	5095288	183.13	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75830.D
Acq On : 20 May 2019 4:30 pm
Operator : firatt
Sample : ic6285-200
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 20 18:11:23 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	Styrene	8.143	104	4150022	186.39	ug/L	98
91)	Bromoform	8.308	173	1187805	262.49	ug/L	98
93)	Isopropylbenzene	8.508	105	6071136	186.48	ug/L	97
94)	Cyclohexanone	8.590	55	255467	1259.99	ug/L	96
96)	Bromobenzene	8.755	156	1970934	203.11	ug/L	99
97)	1,1,2,2-Tetrachloroethane	8.854	83	1915102	192.81	ug/L	99
98)	Trans-1,4-Dichloro-2-B...	8.907	53	375673	228.53	ug/L	83
99)	1,2,3-Trichloropropane	8.860	110	605280	192.23	ug/L	95
100)	n-Propylbenzene	8.919	91	6974832	181.46	ug/L	94
101)	2-Chlorotoluene	8.966	91	4274871	186.36	ug/L	96
102)	4-Chlorotoluene	9.078	91	5087677	186.91	ug/L	96
103)	1,3,5-Trimethylbenzene	9.101	105	5153644	189.11	ug/L	95
104)	Butyl Methacrylate	9.266	69	2194064	256.82	ug/L	97
105)	alpha-Methylstyrene	9.319	118	2835253	207.14	ug/L	98
106)	Pentachloroethane	9.401	167	1069686	232.34	ug/L	100
107)	sec-Butylbenzene	9.606	105	6673750	189.27	ug/L	94
108)	1,3-Dichlorobenzene	9.671	146	3449158	195.72	ug/L	98
109)	4-Isopropyltoluene	9.753	119	5458598	181.37	ug/L	97
110)	1,4-Dichlorobenzene	9.765	146	3257880	183.51	ug/L	98
111)	tert-Butylbenzene	9.395	91	2812058	184.63	ug/L	95
112)	Dicyclopentadiene	9.753	66	4392531	171.57	ug/L	94
113)	n-Butylbenzene	10.135	91	5871970	178.80	ug/L	95
114)	1,2-Dichlorobenzene	10.094	146	3341735	198.43	ug/L	99
115)	1,2,4-Trimethylbenzene	9.448	105	5285260	191.44	ug/L	95
116)	Benzyl Chloride	9.912	91	6491477	250.59	ug/L	95
117)	p-Diethylbenzene	10.118	119	3430634	196.29	ug/L	89
118)	Hexachloroethane	10.306	119	908891	276.70	ug/L	91
119)	1,2-Dibromo-3-Chloropr...	10.823	75	399387	268.63	ug/L	90
120)	1,2,4-Trichlorobenzene	11.545	180	2773211	233.00	ug/L	100
121)	1,3-Diethylbenzene	10.041	119	3535434	198.34	ug/L	97
122)	Hexachlorobutadiene	11.716	225	1466682	228.47	ug/L	99
123)	Naphthalene	11.757	128	6083368	227.06	ug/L	99
124)	1,2,3-Trichlorobenzene	11.968	180	2400594	229.35	ug/L	98

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

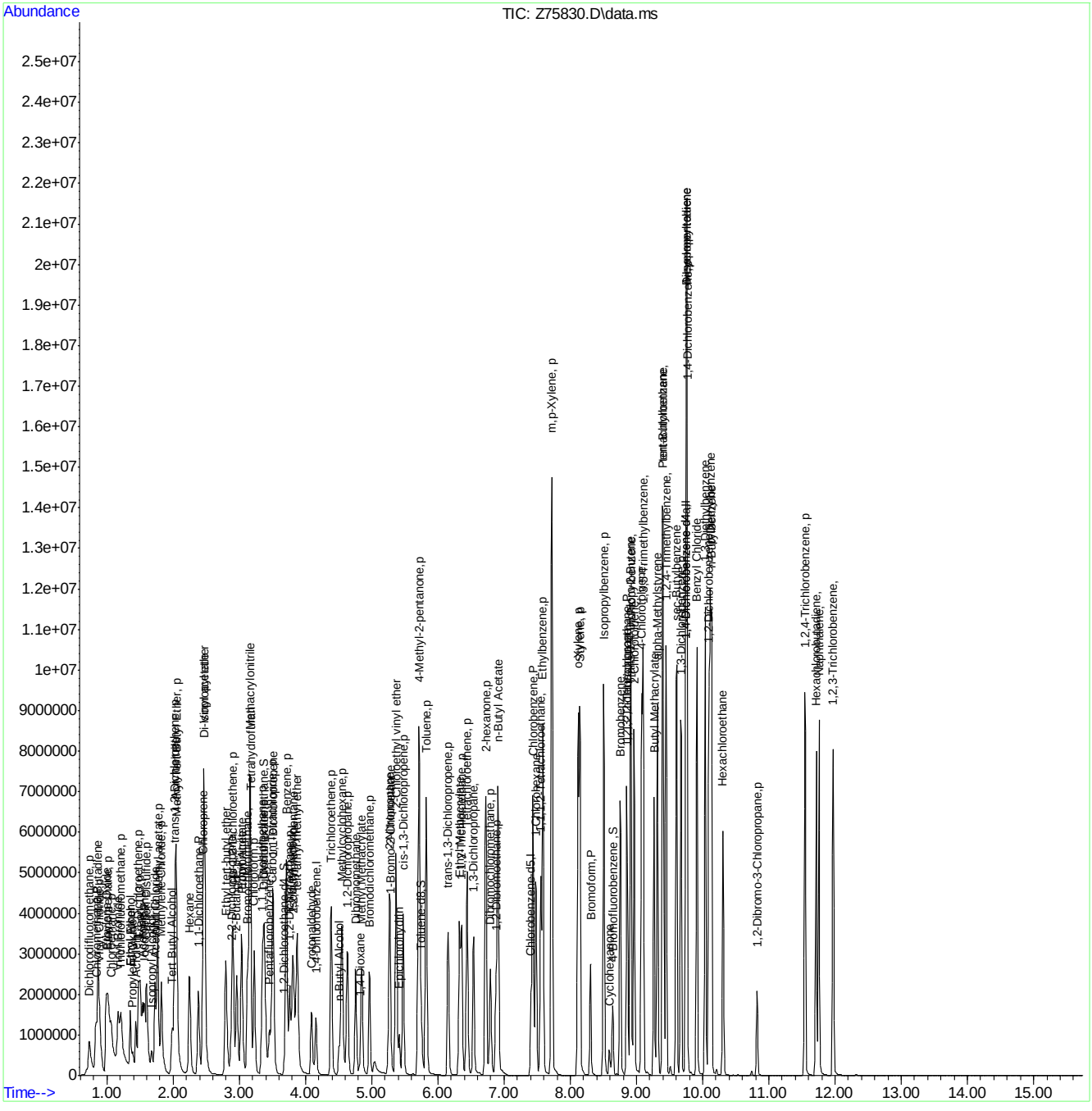
7.6.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75830.D
Acq On : 20 May 2019 4:30 pm
Operator : firatt
Sample : ic6285-200
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 20 18:11:23 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration



Manual Integration Approval Summary

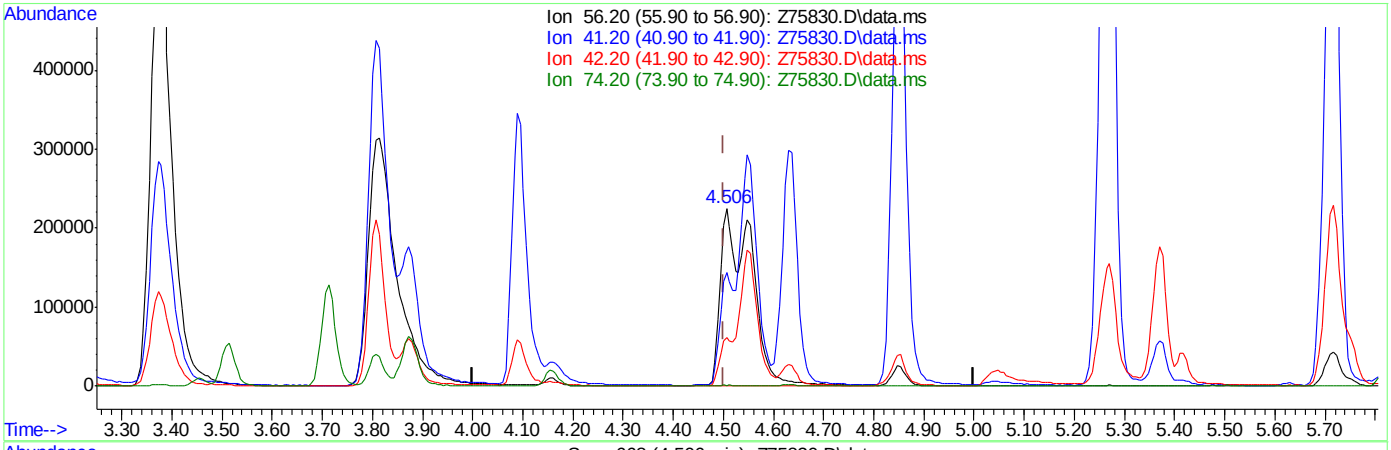
Sample Number:	VZ6285-IC6285	**Method:**	SW846 8260C
Lab FileID:	Z75830.D	**Analyst approved:**	05/21/19 08:05 Firat Tastan
Injection Time:	05/20/19 16:30	**Supervisor approved:**	05/21/19 13:17 John Watson

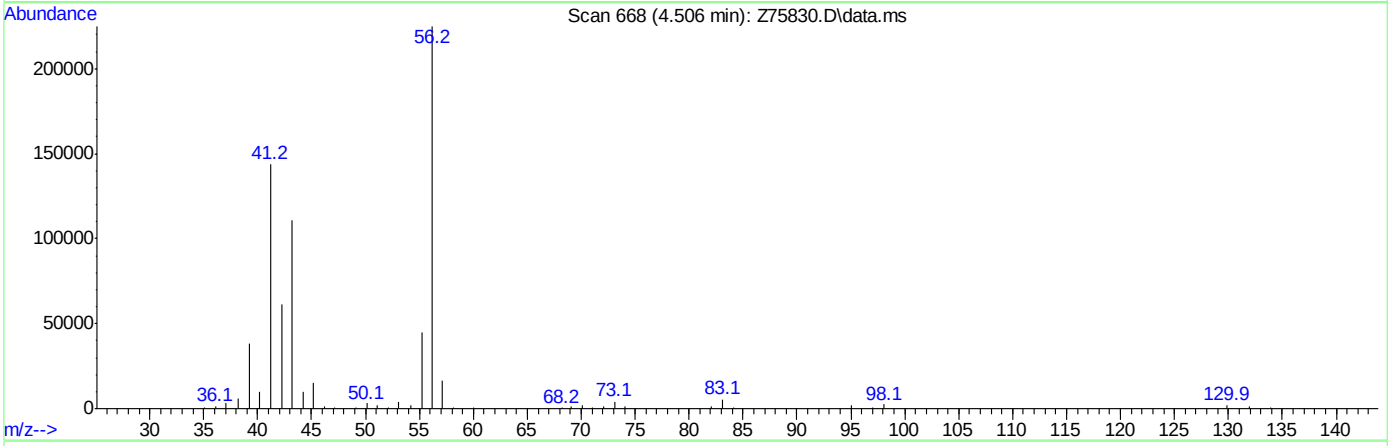
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butyl Alcohol	71-36-3		4.51	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75830.D
Acq On : 20 May 2019 4:30 pm
Operator : firatt
Sample : ic6285-200
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 20 17:56:28 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration





TIC: Z75830.D\data.ms

(58) n-Butyl Alcohol

4.506min (+0.006) 5665.77ug/L

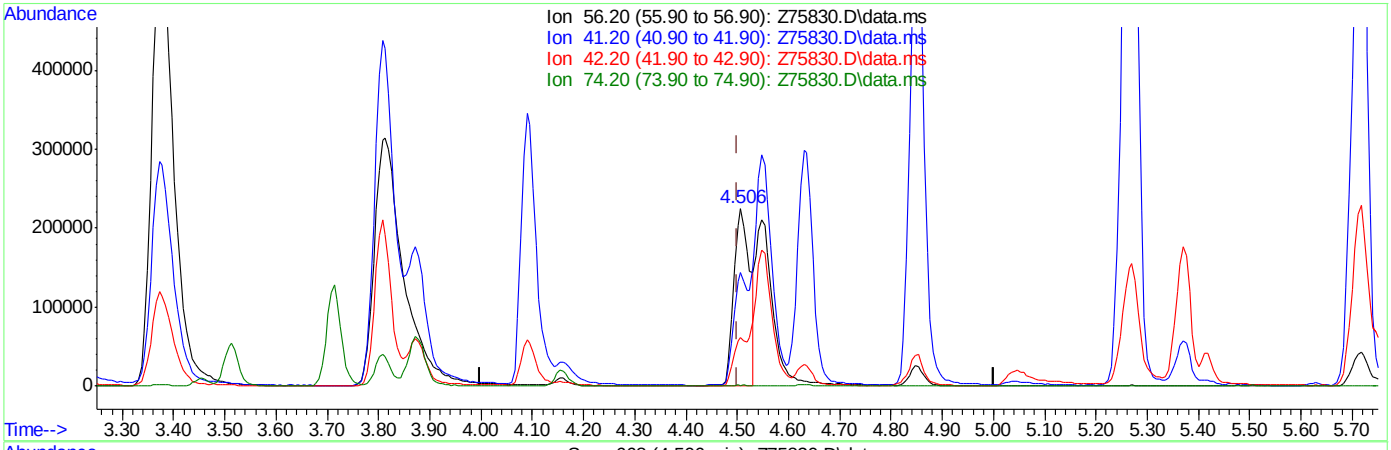
response 973098

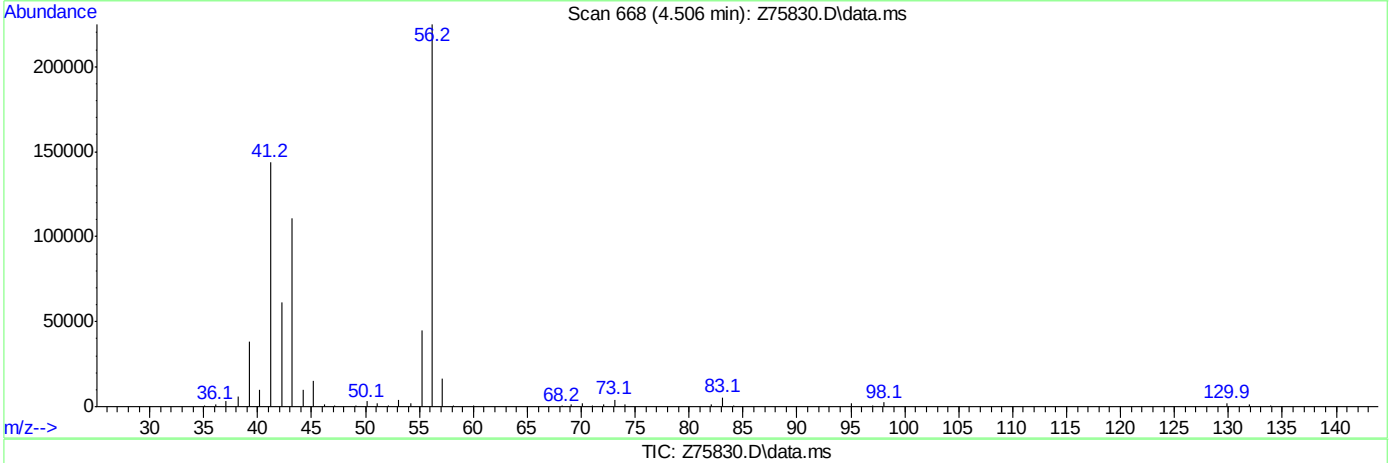
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	63.38
42.20	28.80	27.15
74.20	0.00	0.53

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75830.D
Acq On : 20 May 2019 4:30 pm
Operator : firatt
Sample : ic6285-200
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 20 17:56:28 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 17:55:51 2019
Response via : Initial Calibration





TIC: Z75830.D\data.ms

(58) n-Butyl Alcohol

4.506min (+0.006) 2819.36ug/L m

response 484226

Ion	Exp%	Act%
56.20	100	100
41.20	62.00	64.02
42.20	28.80	27.28
74.20	0.00	0.53

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/21/19 13:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75833.D
Acq On : 20 May 2019 5:44 pm
Operator : firatt
Sample : icv6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 18:28:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.449	168	811696	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	1171807	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	1065484	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	560936	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	560936	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.373	113	333659	49.21	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 98.42%			
51) 1,2-Dichloroethane-d4	3.684	65	364898	47.59	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 95.18%			
73) Toluene-d8	5.740	98	1304139	49.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 99.36%			
95) 4-Bromofluorobenzene	8.637	95	505596	49.84	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 99.68%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	293684	28.73	ug/L	98
3) Chloromethane	0.834	50	449131	42.40	ug/L	95
4) Vinyl Chloride	0.887	62	307050	38.97	ug/L	99
5) 1,3-Butadiene	0.864	54	244033	40.58	ug/L	97
6) Ethylene Oxide	0.993	44	2363190	2010.04	ug/L	100
7) Bromomethane	1.022	94	196121	39.64	ug/L	98
8) Chloroethane	1.063	64	134533	34.46	ug/L	98
9) Vinyl Bromide	1.163	106	195604	37.29	ug/L	99
10) Trichlorofluoromethane	1.204	101	355893	36.59	ug/L	96
11) Ethyl Alcohol	1.351	45	145917	359.66	ug/L	98
12) Ethyl Ether	1.351	59	173794	33.74	ug/L	97
13) Acrolein	1.434	56	259818	190.37	ug/L	97
14) 1,1-Dichloroethene	1.481	61	286560	32.85	ug/L	99
15) Freon 113	1.504	101	189639	33.52	ug/L	98
16) Acetone	1.533	43	386910	197.74	ug/L	99
17) Propylene Oxide	1.387	58	56693	41.42	ug/L	96
18) Isopropyl Alcohol	1.663	45	172885	377.07	ug/L	97
19) Iodomethane	1.569	142	435958	35.16	ug/L	99
20) Methyl acetate	1.763	43	916991	191.63	ug/L	100
21) Carbon Disulfide	1.598	76	578967	40.76	ug/L	99
22) Allyl Chloride	1.727	76	115232	39.14	ug/L	98
23) Acetonitrile	1.733	40	103810m	196.18	ug/L	
24) Methylene Chloride	1.821	49	254304	36.10	ug/L	98
25) Tert Butyl Alcohol	1.968	59	394802	343.66	ug/L	97
26) trans-1,2-Dichloroethene	2.021	61	300544	36.12	ug/L	98
27) Acrylonitrile	2.039	53	500993	186.68	ug/L	100
28) Hexane	2.250	57	283828	31.32	ug/L	97
29) Methyl Tert Butyl Ether	2.039	73	670477	39.18	ug/L	99
30) 1,1-Dichloroethane	2.380	63	435972	33.59	ug/L	100
31) Vinyl acetate	2.462	43	1787109	98.50	ug/L	100
33) Di-isopropyl ether	2.468	45	762205	37.55	ug/L	95
34) Chloroprene	2.450	53	320559	33.43	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75833.D
Acq On : 20 May 2019 5:44 pm
Operator : firatt
Sample : icv6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 18:28:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Ethyl tert-butyl ether	2.791	59	630009	43.60	ug/L	100
36) Ethyl Acetate	3.026	43	770302	94.37	ug/L	100
37) 2,2-Dichloropropane	2.879	77	222538	37.80	ug/L	97
38) cis-1,2-Dichloroethene	2.902	61	374070	33.78	ug/L	99
39) 2-Butanone	2.955	43	732020	231.21	ug/L	98
40) Propionitrile	3.020	54	248116	226.34	ug/L	97
41) Methacrylonitrile	3.149	41	946993	215.35	ug/L	99
42) Bromochloromethane	3.120	128	160960	37.32	ug/L	98
43) Chloroform	3.220	83	451572	36.57	ug/L	97
44) Tetrahydrofuran	3.161	42	129919	43.07	ug/L	95
45) 1,1,1-Trichloroethane	3.343	97	357210	34.18	ug/L	98
47) Cyclohexane	3.373	56	369090	36.34	ug/L	98
48) 1,1-Dichloropropene	3.508	75	342375	37.03	ug/L	97
50) Carbon Tetrachloride	3.496	119	286780	33.74	ug/L	99
52) Isobutyl Alcohol	3.796	43	254244	419.20	ug/L	91
53) Benzene	3.707	78	1065651	38.30	ug/L	99
54) 1,2-Dichloroethane	3.760	62	351986	37.90	ug/L	98
55) 2,2,4-Trimethylpentane	3.801	57	821173	34.94	ug/L	93
56) tert-amyl methyl ether	3.866	73	623850	46.13	ug/L	99
57) Crotonaldehyde	4.089	41	159461	232.80	ug/L	96
58) n-Butyl Alcohol	4.501	56	81708	410.51	ug/L	98
59) Trichloroethene	4.383	95	284434	33.71	ug/L	98
60) Methylcyclohexane	4.548	83	427823	35.20	ug/L	99
61) Methyl Methacrylate	4.841	41	274926	45.27	ug/L	98
62) 1,2-Dichloropropane	4.630	63	271523	36.42	ug/L	99
63) Dibromomethane	4.753	93	183806	34.66	ug/L	98
64) 1,4-Dioxane	4.824	88	71787	851.68	ug/L	93
65) Bromodichloromethane	4.965	83	326722	37.58	ug/L	99
66) 2-Nitropropane	5.253	41	356402	209.69	ug/L	98
67) 2-Chloroethyl vinyl ether	5.358	63	568093	240.66	ug/L	98
68) 1-Bromo-2-Chloroethane	5.270	63	403306	40.08	ug/L	100
69) Epichlorohydrin	5.405	57	162837	234.05	ug/L	99
70) 4-Methyl-2-pentanone	5.705	43	1563194	215.03	ug/L	100
71) cis-1,3-Dichloropropene	5.470	75	437002	41.51	ug/L	100
74) Toluene	5.817	91	1155991	37.79	ug/L	99
75) Ethyl Methacrylate	6.322	69	446072	48.09	ug/L	99
76) trans-1,3-Dichloropropene	6.152	75	390439	40.80	ug/L	98
77) 1,1,2-Trichloroethane	6.351	83	224953	35.32	ug/L	95
78) Tetrachloroethene	6.434	166	343583	33.44	ug/L	99
79) 2-hexanone	6.716	43	1144753	210.36	ug/L	99
80) 1,3-Dichloropropane	6.534	76	451825	33.57	ug/L	99
81) Dibromochloromethane	6.786	129	270646	42.20	ug/L	99
82) n-Butyl Acetate	6.904	43	1161786	104.13	ug/L	97
83) 1,2-Dibromoethane	6.874	107	302151	36.95	ug/L	98
84) 1-Chlorohexane	7.480	91	388163	43.46	ug/L	97
85) Chlorobenzene	7.433	112	795586	37.84	ug/L	98
86) 1,1,1,2-Tetrachloroethane	7.550	131	269819	39.29	ug/L	99
87) Ethylbenzene	7.579	91	1309788	34.71	ug/L	100
88) m,p-Xylene	7.715	91	2003585	69.26	ug/L	99
89) o-Xylene	8.114	91	1073392	35.48	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75833.D
Acq On : 20 May 2019 5:44 pm
Operator : firatt
Sample : icv6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 18:28:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

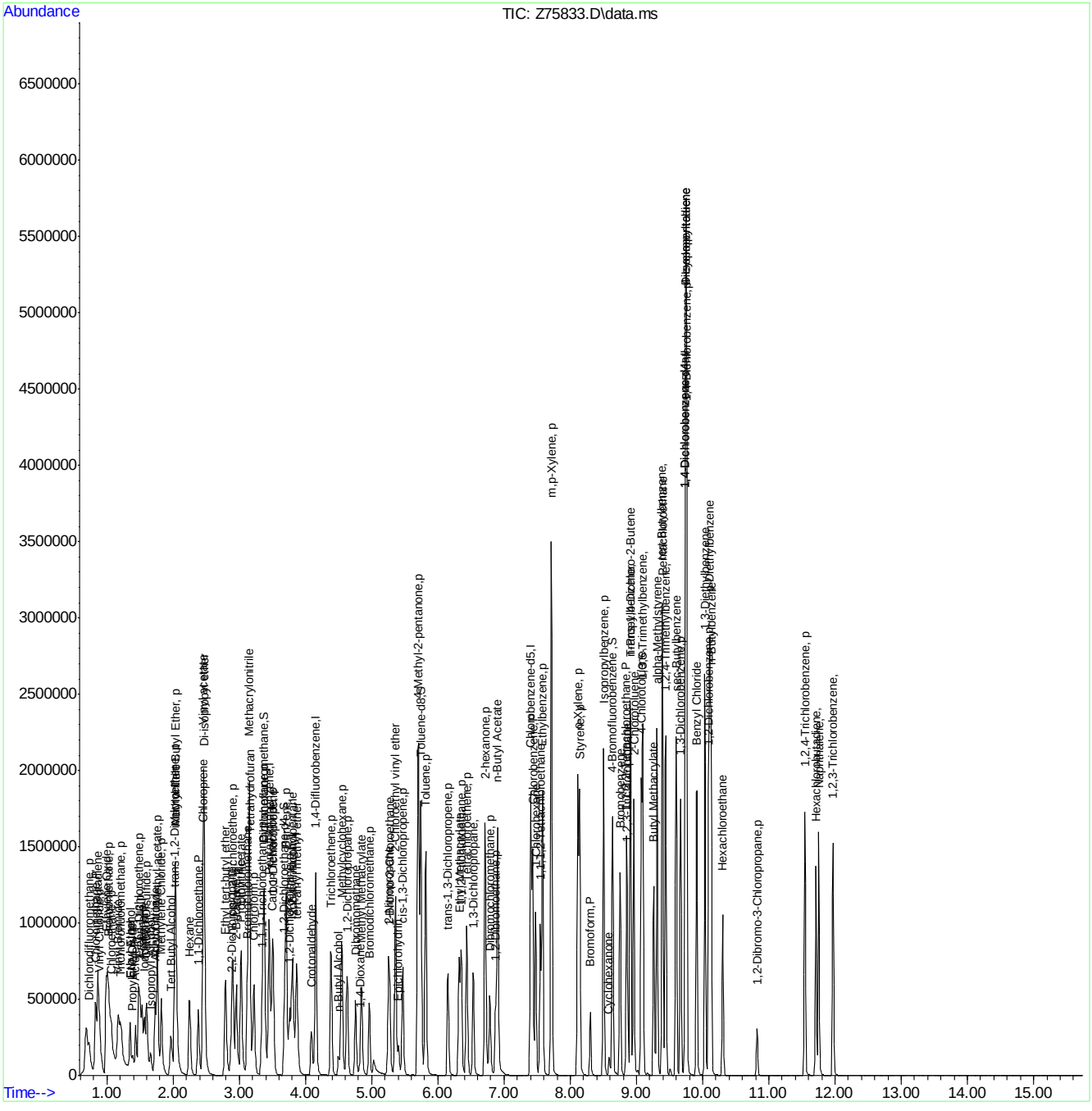
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	Styrene	8.143	104	881600	40.04	ug/L	99
91)	Bromoform	8.302	173	179916	38.14	ug/L	97
93)	Isopropylbenzene	8.502	105	1345485	37.03	ug/L	99
94)	Cyclohexanone	8.584	55	58516	258.70	ug/L	96
96)	Bromobenzene	8.755	156	385769	35.16	ug/L	98
97)	1,1,2,2-Tetrachloroethane	8.849	83	412202	36.40	ug/L	99
98)	Trans-1,4-Dichloro-2-B...	8.907	53	72441	42.25	ug/L	92
99)	1,2,3-Trichloropropane	8.860	110	121466	37.87	ug/L	99
100)	n-Propylbenzene	8.907	91	1528187	36.67	ug/L	99
101)	2-Chlorotoluene	8.960	91	897766	37.66	ug/L	100
102)	4-Chlorotoluene	9.072	91	1063632	34.36	ug/L	98
103)	1,3,5-Trimethylbenzene	9.095	105	1094980	36.98	ug/L	99
104)	Butyl Methacrylate	9.260	69	412523	44.17	ug/L	98
105)	alpha-Methylstyrene	9.313	118	633294	47.62	ug/L	97
106)	Pentachloroethane	9.395	167	199413	43.57	ug/L	98
107)	sec-Butylbenzene	9.601	105	1425225	36.54	ug/L	98
108)	1,3-Dichlorobenzene	9.665	146	711750	39.30	ug/L	98
109)	4-Isopropyltoluene	9.748	119	1195791	35.64	ug/L	99
110)	1,4-Dichlorobenzene	9.759	146	695417	38.17	ug/L	99
111)	tert-Butylbenzene	9.389	91	590770	34.42	ug/L	100
112)	Dicyclopentadiene	9.748	66	1232332	47.07	ug/L	98
113)	n-Butylbenzene	10.129	91	1322113	37.17	ug/L	99
114)	1,2-Dichlorobenzene	10.088	146	667502	38.22	ug/L	99
115)	1,2,4-Trimethylbenzene	9.442	105	1116366	37.08	ug/L	99
116)	Benzyl Chloride	9.912	91	1200910	42.76	ug/L	100
117)	p-Diethylbenzene	10.106	119	778568	41.42	ug/L	100
118)	Hexachloroethane	10.306	119	138256	38.43	ug/L	99
119)	1,2-Dibromo-3-Chloropr...	10.823	75	61170	38.07	ug/L	92
120)	1,2,4-Trichlorobenzene	11.545	180	485559	35.13	ug/L	98
121)	1,3-Diethylbenzene	10.035	119	757908	40.27	ug/L	98
122)	Hexachlorobutadiene	11.710	225	257165	37.43	ug/L	97
123)	Naphthalene	11.751	128	1129808	38.32	ug/L	99
124)	1,2,3-Trichlorobenzene	11.968	180	433637	34.86	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75833.D
Acq On : 20 May 2019 5:44 pm
Operator : firatt
Sample : icv6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 18:28:04 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration



Manual Integration Approval Summary

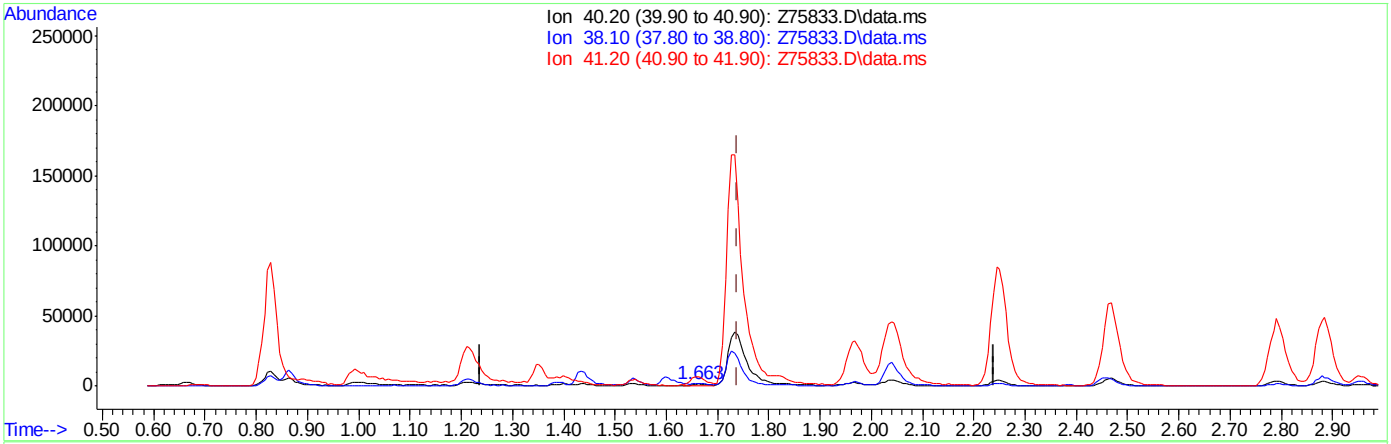
Sample Number:	VZ6285-ICV6285	**Method:**	SW846 8260C
Lab FileID:	Z75833.D	**Analyst approved:**	05/21/19 08:05 Firat Tastan
Injection Time:	05/20/19 17:44	**Supervisor approved:**	05/21/19 13:17 John Watson

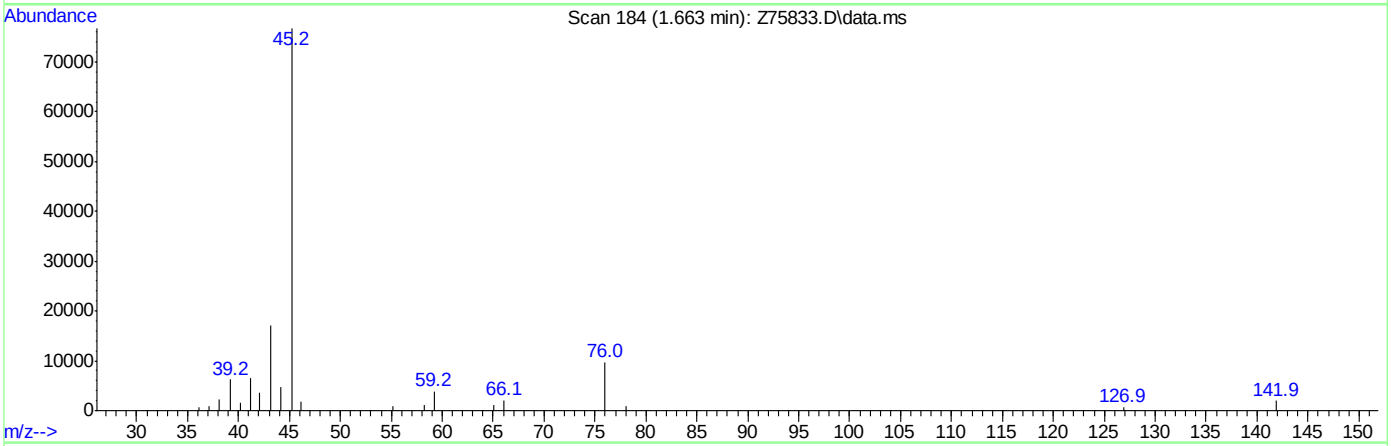
Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		1.73	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75833.D
Acq On : 20 May 2019 5:44 pm
Operator : firatt
Sample : icv6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 18:27:07 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75833.D\data.ms

(23) Acetonitrile

1.663min (-0.076) 6.13ug/L

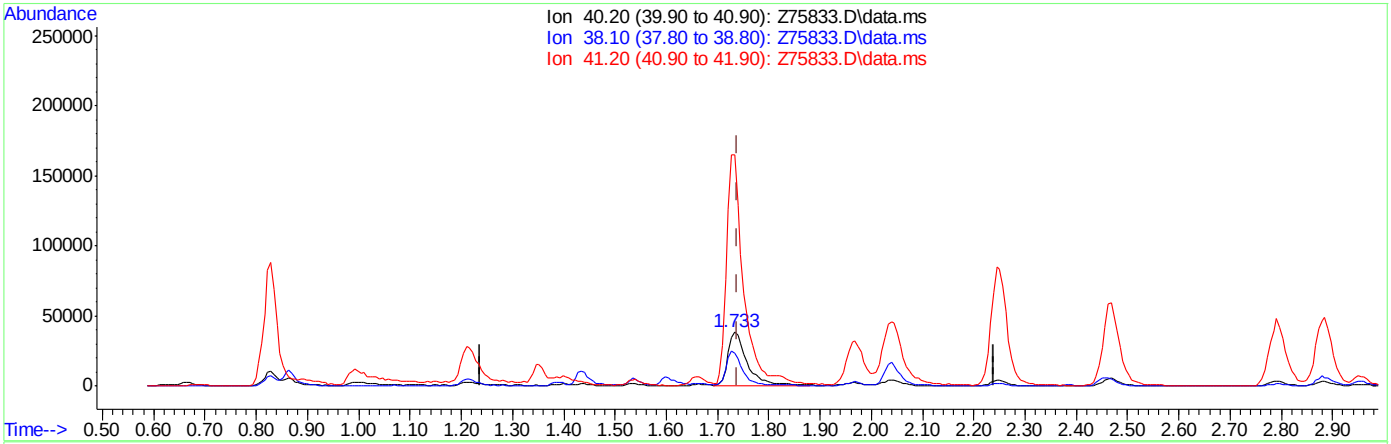
response 3245

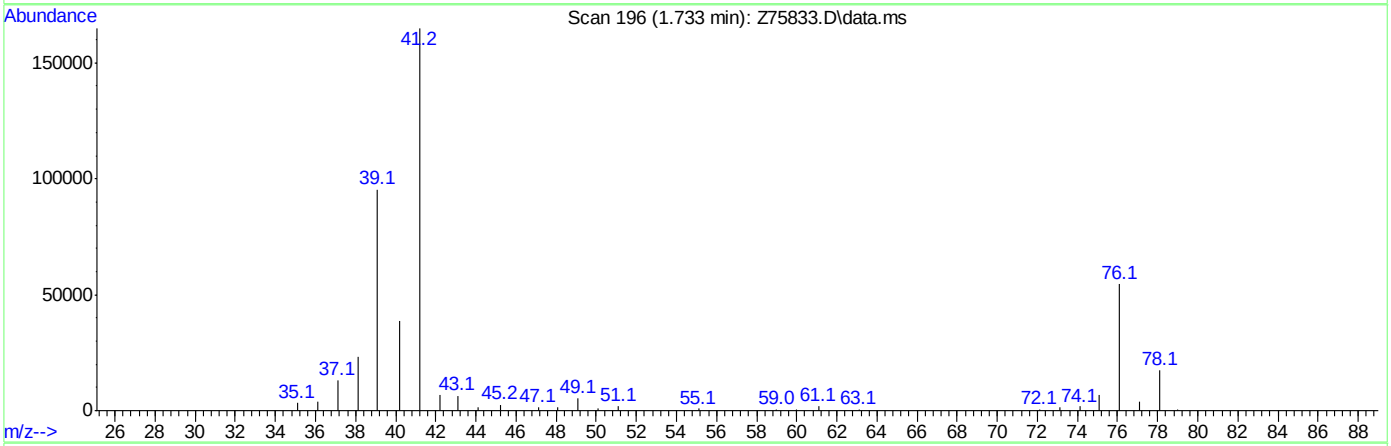
Ion	Exp%	Act%
40.20	100	100
38.10	64.50	80.30
41.20	387.20	363.10
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6285\
Data File : Z75833.D
Acq On : 20 May 2019 5:44 pm
Operator : firatt
Sample : icv6285-40
Misc : ms24730,vz6285,5,,,5,,water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 18:27:07 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75833.D\data.ms

(23) Acetonitrile

1.733min (-0.006) 196.18ug/L m

response 103810

Ion	Exp%	Act%
40.20	100	100
38.10	64.50	60.37
41.20	387.20	426.67#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
John Watson
05/24/19 15:22

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75930.D
Acq On : 24 May 2019 7:59 am
Operator : firatt
Sample : CC6285-20
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 08:50:45 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	3.455	168	510846	50.00	ug/L	0.00
49) 1,4-Difluorobenzene	4.154	114	763015	50.00	ug/L	0.00
72) Chlorobenzene-d5	7.403	117	686189	50.00	ug/L	0.00
92) 1,4-Dichlorobenzene-d4	9.736	152	360653	50.00	ug/L	0.00
125) 1,4-Dichlorobenzene-d4a	9.736	152	360653	50.00	ug/L	0.00
System Monitoring Compounds						
46) Dibromofluoromethane	3.372	113	222865	52.23	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery = 104.46%			
51) 1,2-Dichloroethane-d4	3.684	65	249053	49.89	ug/L	0.00
Spiked Amount 50.000	Range 68 - 124		Recovery = 99.78%			
73) Toluene-d8	5.740	98	867629	51.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 119		Recovery = 102.64%			
95) 4-Bromofluorobenzene	8.637	95	327088	50.15	ug/L	0.00
Spiked Amount 50.000	Range 72 - 126		Recovery = 100.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.734	85	103509	16.09	ug/L	98
3) Chloromethane	0.834	50	140111	20.06	ug/L	95
4) Vinyl Chloride	0.881	62	101279	20.12	ug/L	98
5) 1,3-Butadiene	0.863	54	69783	18.44	ug/L	95
6) Ethylene Oxide	0.999	44	948736	1243.01	ug/L	96
7) Bromomethane	1.022	94	66082	19.64	ug/L	99
8) Chloroethane	1.069	64	54098	21.16	ug/L	96
9) Vinyl Bromide	1.163	106	61526	18.64	ug/L	97
10) Trichlorofluoromethane	1.198	101	112148	17.56	ug/L	97
11) Ethyl Alcohol	1.351	45	46516	182.18	ug/L	96
12) Ethyl Ether	1.351	59	60369	18.62	ug/L	94
13) Acrolein	1.439	56	78754	91.69	ug/L	90
14) 1,1-Dichloroethene	1.480	61	92976	16.94	ug/L	97
15) Freon 113	1.510	101	61864	17.37	ug/L	97
16) Acetone	1.539	43	113575	92.23	ug/L	95
17) Propylene Oxide	1.392	58	15403	18.41	ug/L	89
18) Isopropyl Alcohol	1.668	45	42805	148.34	ug/L	98
19) Iodomethane	1.569	142	128422	16.46	ug/L	99
20) Methyl acetate	1.768	43	301487	100.11	ug/L	100
21) Carbon Disulfide	1.604	76	173692	19.43	ug/L	99
22) Allyl Chloride	1.733	76	40378	21.79	ug/L	95
23) Acetonitrile	1.733	40	32891	98.76	ug/L #	67
24) Methylene Chloride	1.821	49	77320	17.44	ug/L	99
25) Tert Butyl Alcohol	1.980	59	110086	152.26	ug/L	94
26) trans-1,2-Dichloroethene	2.027	61	116018	21.93	ug/L	98
27) Acrylonitrile	2.044	53	188115	111.38	ug/L	96
28) Hexane	2.250	57	113897	19.97	ug/L	98
29) Methyl Tert Butyl Ether	2.044	73	215382	20.00	ug/L	97
30) 1,1-Dichloroethane	2.385	63	151132	18.50	ug/L	100
31) Vinyl acetate	2.467	43	581062	50.89	ug/L	99
33) Di-isopropyl ether	2.467	45	251785	19.71	ug/L	97
34) Chloroprene	2.456	53	113457	18.80	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75930.D
Acq On : 24 May 2019 7:59 am
Operator : firatt
Sample : CC6285-20
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 08:50:45 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) Ethyl tert-butyl ether	2.797	59	220113	24.21	ug/L		99
36) Ethyl Acetate	3.032	43	253664	49.38	ug/L		99
37) 2,2-Dichloropropane	2.885	77	72201	19.48	ug/L		96
38) cis-1,2-Dichloroethene	2.902	61	129578	18.59	ug/L		99
39) 2-Butanone	2.955	43	210996	105.89	ug/L		100
40) Propionitrile	3.026	54	75105	108.86	ug/L		97
41) Methacrylonitrile	3.149	41	287682	103.95	ug/L		98
42) Bromochloromethane	3.126	128	49123	18.10	ug/L		95
43) Chloroform	3.225	83	154264	19.45	ug/L		100
44) Tetrahydrofuran	3.167	42	40461	21.31	ug/L	#	55
45) 1,1,1-Trichloroethane	3.349	97	116821	17.76	ug/L		99
47) Cyclohexane	3.372	56	132904	20.79	ug/L		97
48) 1,1-Dichloropropene	3.507	75	115534	19.59	ug/L		98
50) Carbon Tetrachloride	3.496	119	93978	16.98	ug/L		96
52) Isobutyl Alcohol	3.801	43	72912	184.62	ug/L		93
53) Benzene	3.707	78	363083	19.74	ug/L		93
54) 1,2-Dichloroethane	3.760	62	111851	18.26	ug/L		97
55) 2,2,4-Trimethylpentane	3.801	57	295466	19.31	ug/L		98
56) tert-amyl methyl ether	3.872	73	225552	25.62	ug/L		98
57) Crotonaldehyde	4.095	41	55675	124.83	ug/L		98
58) n-Butyl Alcohol	4.524	56	12554m	100.92	ug/L		
59) Trichloroethene	4.389	95	90922	16.55	ug/L		95
60) Methylcyclohexane	4.547	83	146838	18.56	ug/L		98
61) Methyl Methacrylate	4.847	41	78584	19.87	ug/L		99
62) 1,2-Dichloropropane	4.630	63	88801	18.29	ug/L		100
63) Dibromomethane	4.759	93	59177	17.14	ug/L		96
64) 1,4-Dioxane	4.824	88	15251	277.88	ug/L		96
65) Bromodichloromethane	4.965	83	99490	17.58	ug/L		97
66) 2-Nitropropane	5.253	41	103164	93.22	ug/L		99
67) 2-Chloroethyl vinyl ether	5.358	63	330236	217.80	ug/L		97
68) 1-Bromo-2-Chloroethane	5.276	63	130590	19.57	ug/L		99
69) Epichlorohydrin	5.405	57	49551	109.38	ug/L		95
70) 4-Methyl-2-pentanone	5.705	43	485017	99.34	ug/L		98
71) cis-1,3-Dichloropropene	5.470	75	145612	21.24	ug/L		97
74) Toluene	5.817	91	388691	19.34	ug/L		100
75) Ethyl Methacrylate	6.322	69	126247	21.13	ug/L		98
76) trans-1,3-Dichloropropene	6.151	75	113917	19.09	ug/L		98
77) 1,1,2-Trichloroethane	6.351	83	74500	18.16	ug/L		98
78) Tetrachloroethene	6.439	166	107894	16.30	ug/L		97
79) 2-hexanone	6.716	43	353661	100.91	ug/L		99
80) 1,3-Dichloropropane	6.533	76	152630	17.61	ug/L		98
81) Dibromochloromethane	6.786	129	80079	19.39	ug/L		99
82) n-Butyl Acetate	6.904	43	374531	52.13	ug/L		99
83) 1,2-Dibromoethane	6.874	107	94955	18.03	ug/L		97
84) 1-Chlorohexane	7.479	91	120355	20.92	ug/L		99
85) Chlorobenzene	7.432	112	258095	18.79	ug/L		100
86) 1,1,1,2-Tetrachloroethane	7.550	131	79799	18.04	ug/L		97
87) Ethylbenzene	7.579	91	433451	17.84	ug/L		99
88) m,p-Xylene	7.714	91	673814	36.17	ug/L		99
89) o-Xylene	8.114	91	348236	17.87	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75930.D
Acq On : 24 May 2019 7:59 am
Operator : firatt
Sample : CC6285-20
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 08:50:45 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration

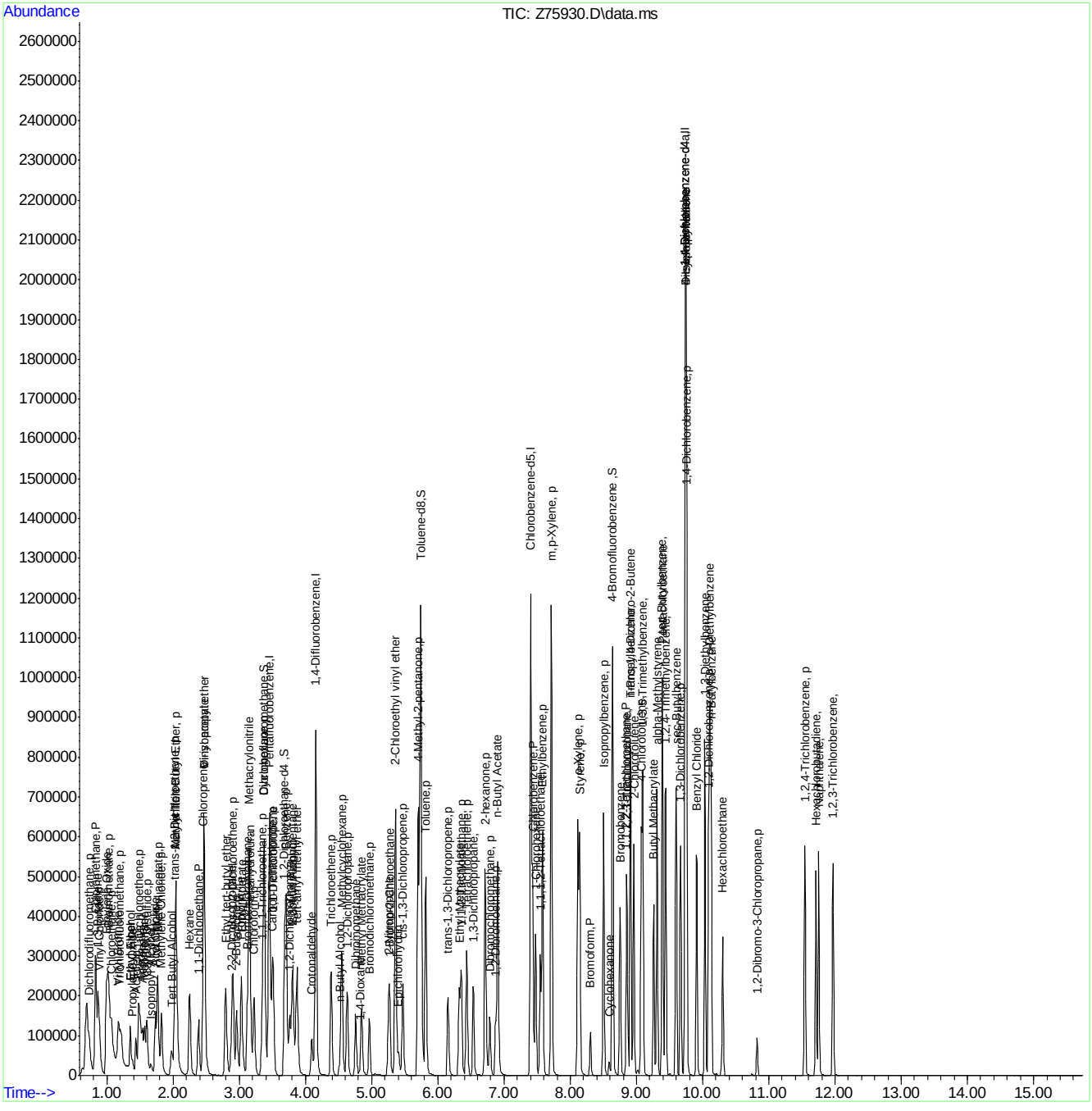
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90)	Styrene	8.143	104	291238	20.54	ug/L		98
91)	Bromoform	8.302	173	49071	16.95	ug/L		98
93)	Isopropylbenzene	8.502	105	411657	17.62	ug/L		99
94)	Cyclohexanone	8.590	55	18088	130.77	ug/L		98
96)	Bromobenzene	8.754	156	119296	16.91	ug/L		99
97)	1,1,2,2-Tetrachloroethane	8.848	83	130338	17.90	ug/L		98
98)	Trans-1,4-Dichloro-2-B...	8.907	53	22989	21.94	ug/L	#	80
99)	1,2,3-Trichloropropane	8.854	110	38085	18.23	ug/L		89
100)	n-Propylbenzene	8.907	91	508416	18.97	ug/L		99
101)	2-Chlorotoluene	8.960	91	303829	19.44	ug/L		99
102)	4-Chlorotoluene	9.072	91	351423	17.66	ug/L		99
103)	1,3,5-Trimethylbenzene	9.095	105	360968	18.96	ug/L		99
104)	Butyl Methacrylate	9.260	69	132463	22.99	ug/L		96
105)	alpha-Methylstyrene	9.313	118	197176	23.06	ug/L		98
106)	Pentachloroethane	9.395	167	55176	18.75	ug/L		98
107)	sec-Butylbenzene	9.600	105	465733	18.57	ug/L		99
108)	1,3-Dichlorobenzene	9.665	146	220807	18.74	ug/L		96
109)	4-Isopropyltoluene	9.747	119	410865	19.05	ug/L		99
110)	1,4-Dichlorobenzene	9.759	146	226447	18.92	ug/L		98
111)	tert-Butylbenzene	9.389	91	200468	18.17	ug/L		99
112)	Dicyclopentadiene	9.747	66	388540	22.29	ug/L		97
113)	n-Butylbenzene	10.129	91	453910	19.85	ug/L		98
114)	1,2-Dichlorobenzene	10.088	146	215149	19.00	ug/L		99
115)	1,2,4-Trimethylbenzene	9.442	105	370496	19.14	ug/L		100
116)	Benzyl Chloride	9.906	91	345140	20.29	ug/L		96
117)	p-Diethylbenzene	10.106	119	242934	20.10	ug/L		99
118)	Hexachloroethane	10.306	119	42551	19.18	ug/L		92
119)	1,2-Dibromo-3-Chloropr...	10.823	75	18629	18.86	ug/L		99
120)	1,2,4-Trichlorobenzene	11.545	180	164570	18.52	ug/L		99
121)	1,3-Diethylbenzene	10.035	119	237636	19.64	ug/L		98
122)	Hexachlorobutadiene	11.710	225	89250	20.20	ug/L		99
123)	Naphthalene	11.751	128	386585	20.39	ug/L		99
124)	1,2,3-Trichlorobenzene	11.968	180	149787	18.73	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75930.D
Acq On : 24 May 2019 7:59 am
Operator : firatt
Sample : CC6285-20
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 08:50:45 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration



VZ6285.m Fri May 24 08:51:31 2019 Page: 4

Manual Integration Approval Summary

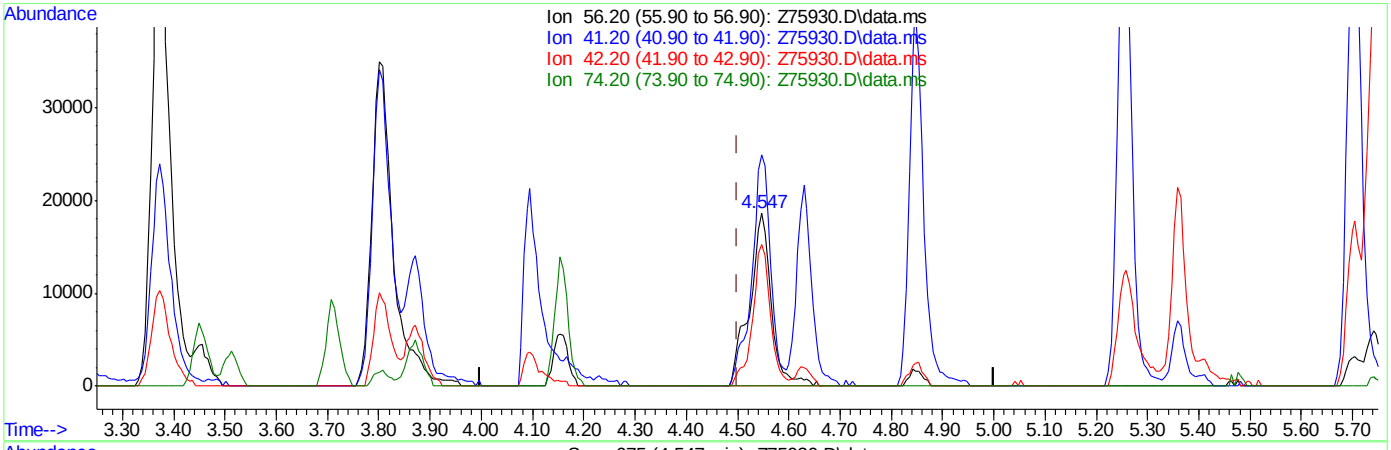
Sample Number:	VZ6291-CC6285	**Method:**	SW846 8260C
Lab FileID:	Z75930.D	**Analyst approved:**	05/24/19 08:49 Firat Tastan
Injection Time:	05/24/19 07:59	**Supervisor approved:**	05/24/19 15:22 John Watson

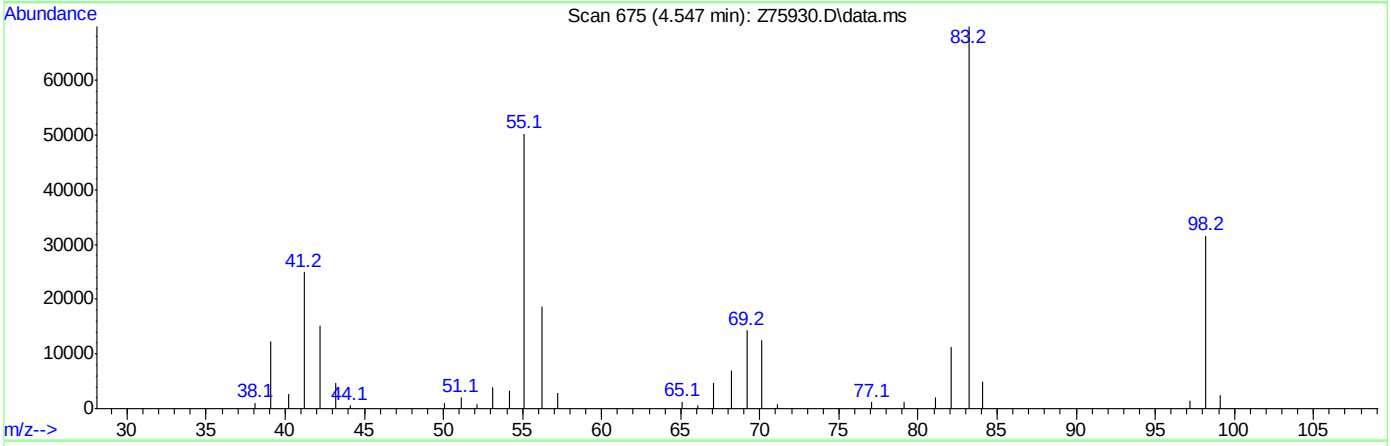
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butyl Alcohol	71-36-3		4.52	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75930.D
Acq On : 24 May 2019 7:59 am
Operator : firatt
Sample : CC6285-20
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 08:50:29 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75930.D\data.ms

(58) n-Butyl Alcohol

4.547min (+0.047) 421.32ug/L

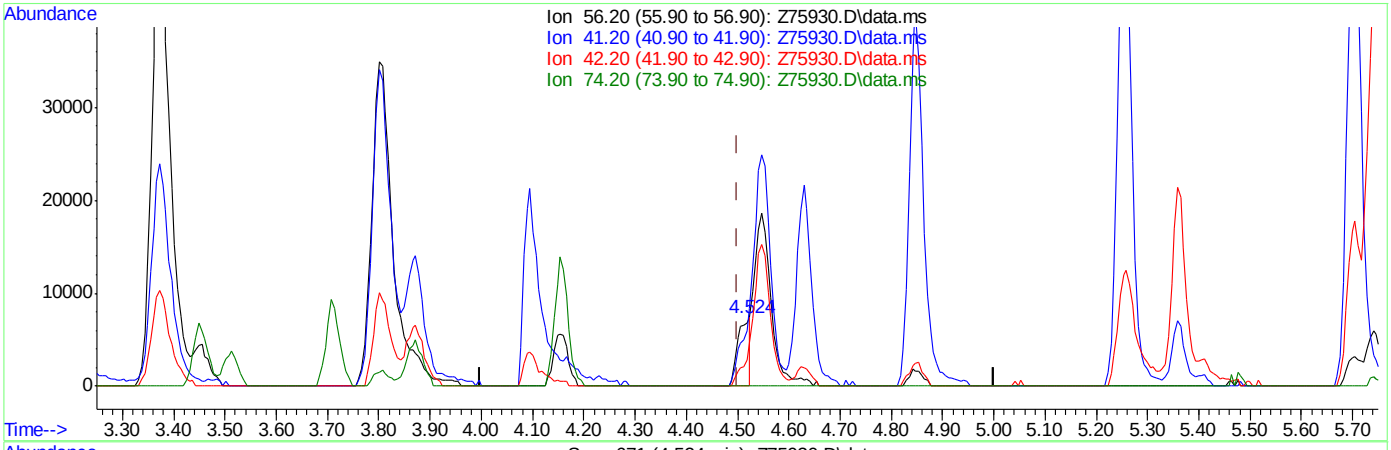
response 54692

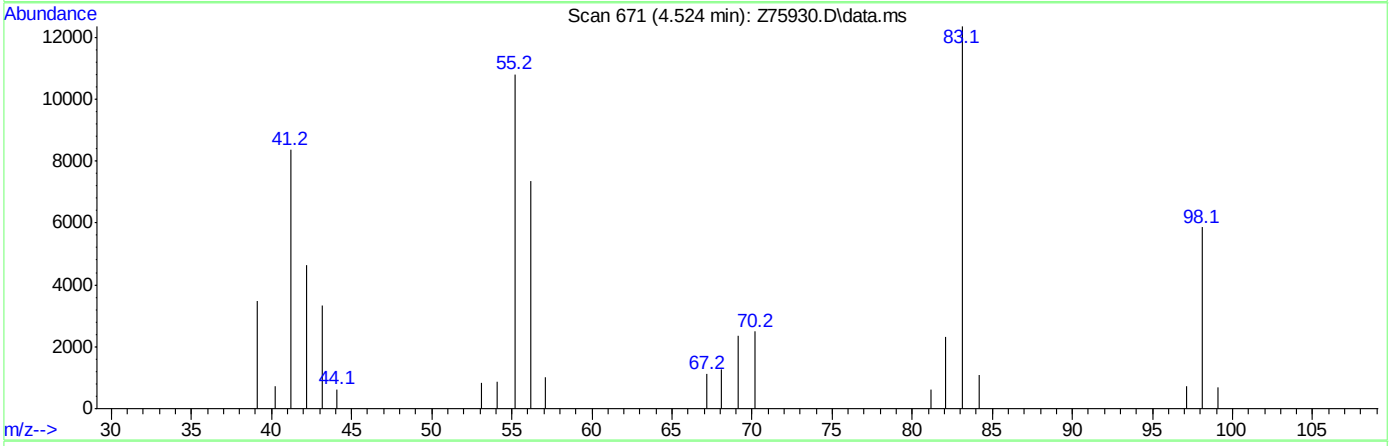
Ion	Exp%	Act%
56.20	100	100
41.20	62.00	133.65#
42.20	28.80	81.66#
74.20	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\VZ6291\
Data File : Z75930.D
Acq On : 24 May 2019 7:59 am
Operator : firatt
Sample : CC6285-20
Misc : ms24759,vz6291,5,,,5,,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 08:50:29 2019
Quant Method : C:\msdchem\1\METHODS\VZ6285.m
Quant Title : SW846 8260C and EPA 624
QLast Update : Mon May 20 18:25:41 2019
Response via : Initial Calibration





TIC: Z75930.D\data.ms

(58) n-Butyl Alcohol

4.524min (+0.024) 100.92ug/L m

response 12554

Ion	Exp%	Act%
56.20	100	100
41.20	62.00	113.54#
42.20	28.80	62.80#
74.20	0.00	0.00

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RTX624
Initial Calib Std	MV13152	MV13151	MV13145		Method	8260C/624
BFB	MV13138				Init Calib Date	5/20/2019
ICV	MV13144	MV13133	MV13153			
CC	MV13152	MV13151	MV13145			
BS/MS/MSD	MV13144	MV13133	MV13153		Analysis Date	5/20/2019
BS/MS/MSD Spike AMT	12.5UL/40ML	10UL/40ML	5UL/40ML		Sequence loaded by	FIRATT
Internal	MV13119				Data processed by	FIRATT
Surr	MV13119				Batch ID	VZ6285
					Matrix	AQ
					Approved By:	FIRATT
pH Paper Lot#	NA				Approved Date:	5/21/2019 9:04:37 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
Z	75815	BLK	NA	NA	NA	8260C	5	NA	NA	1	N	CLEANUP BLANK
Z	75816	BFB	NA	NA	NA	8260C	5	NA	NA	2	N	40UL/40ML
Z	75817	CC6270-20	NA	NA	NA	8260C	5	NA	NA	3	N	(10+5+10)UL/50ML
Z	75818	CC6270-40	NA	NA	NA	8260C	5	NA	NA	4	N	(20+10+20)UL/50ML
Z	75819	BLK	NA	NA	NA	8260C	5	NA	NA	5	N	CLEANUP BLANK
Z	75820	BLK	NA	NA	NA	8260C	5	NA	NA	6	N	CLEANUP BLANK
Z	75821	BFB	NA	NA	NA	8260C	5	NA	NA	7	Y	40UL/40ML
Z	75822	IC6270-0,5	NA	NA	NA	8260C	5	NA	NA	8	Y	(1+0.5+1)UL/200ML
Z	75823	IC6270-1	NA	NA	NA	8260C	5	NA	NA	9	Y	(1+0.5+1)UL/100ML
Z	75824	IC6270-2	NA	NA	NA	8260C	5	NA	NA	10	Y	(2+1+2)UL/100ML
Z	75825	IC6270-5	NA	NA	NA	8260C	5	NA	NA	11	Y	(5+2.5+5)UL/100ML
Z	75826	IC6270-20	NA	NA	NA	8260C	5	NA	NA	12	Y	(10+5+10)UL/50ML

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
Z	75827	ICC6270-40	NA	NA	NA	8260C	5	NA	NA	13	Y	(20+10+20)UL/50ML
Z	75828	IC6270-70	NA	NA	NA	8260C	5	NA	NA	14	Y	(35+17.5+35)UL/50ML
Z	75829	IC6270-100	NA	NA	NA	8260C	5	NA	NA	15	Y	(50+25+50)UL/50ML
Z	75830	IC6270-200	NA	NA	NA	8260C	5	NA	NA	16	Y	(100+50+100)UL/50ML
Z	75831	BLK	NA	NA	NA	8260C	5	NA	NA	17	N	CLEANUP BLANK
Z	75832	BLK	NA	NA	NA	8260C	5	NA	NA	18	N	CLEANUP BLANK
Z	75833	ICV6270-40	NA	NA	NA	8260C	5	NA	NA	19	Y	(25+10+20)UL/50ML

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Initial Calib Std	MV13152	MV13151	MV13145		Column	RTX624
BFB	MV13155				Method	8260C
ICV	MV13144	MV13133	MV13148		Init Calib Date	5/20/2019
CC	MV13152	MV13151	MV13145			
BS/MS/MSD	MV13144	MV13154	MV13153		Analysis Date	5/24/2019
BS/MS/MSD Spike AMT	12.5UL/40ML	10UL/40ML	5UL/40ML		Sequence loaded by	FIRATT
Internal	MV13119				Data processed by	FIRATT / CHERRY M.
Surr	MV13119				Batch ID	VZ6291
					Matrix	AQ
					Approved By:	ANALYST (FIRATT)
pH Paper Lot#	WHATMAN 10D3581				Approved Date:	5/28/2019 9:58:47 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
Z	75928	BLK	NA	NA	NA	8260C	5	NA	NA	1	N	CLEANUP BLANK
Z	75929	BFB	NA	NA	NA	8260C	5	NA	NA	2	Y	40UL/40ML
Z	75930	CC6285-20	NA	NA	NA	8260C	5	NA	NA	3	Y	(10+5+10)UL/50ML
Z	75931	BS	NA	NA	NA	8260C	5	NA	NA	4	Y	(12.5+10+5)UL/40ML
Z	75932	BLK	NA	NA	NA	8260C	5	NA	NA	5	N	CLEANUP BLANK
Z	75933	MB	NA	NA	NA	8260C	5	NA	NA	6	Y	
Z	75934	TD39489-2	5	NA	MS24759	V8260SL	5	NA	>2	7	Y	
Z	75935	TD39489-2	6	20X	MS24759	V8260SL	5	NA	>2	8	Y	2.5ML/50ML
Z	75936	TD39499-1	COMP	NA	MS24759	V8260EPICH	5	NA	<2	9	Y	
Z	75937	TD39541-2	6	NA	MS24762	V8260SL	5	NA	<2	10	Y	
Z	75938	TD39541-2MS	5	NA	MS24762	V8260SL	5	NA	<2	11	Y	(12.5+10+5)UL/40ML
Z	75939	TD39541-2MSD	4	NA	MS24762	V8260SL	5	NA	<2	12	Y	(12.5+10+5)UL/40ML

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
Z	75940	TD39291-10	3	1000X	MS24740	V8260SL2	5	NA	<2	13	Y	50UL/50ML
Z	75941	TD39473-2	4	5X	MS24755	V8260BTXM	5	NA	<2	14	Y	10ML/50ML
Z	75942	TD39541-1	6	NA	MS24762	V8260SL	5	NA	<2	15	Y	
Z	75943	TD39541-3	6	NA	MS24762	V8260SL	5	NA	<2	16	Y	
Z	75944	TD39541-4	1	NA	MS24762	V8260SL	5	NA	<2	17	Y	
Z	75945	TD39563-10	2	NA	MS24762	V8260AZ3+	5	NA	<2	18	Y	
Z	75946	TD39563-1	1	NA	MS24762	V8260AZ3+	5	NA	<2	19	Y	
Z	75947	TD39563-2	3	NA	MS24762	V8260AZ3+	5	NA	<2	20	Y	
Z	75948	TD39563-3	1	NA	MS24762	V8260AZ3+	5	NA	<2	21	Y	
Z	75949	TD39563-4	3	NA	MS24762	V8260AZ3+	5	NA	<2	22	Y	
Z	75950	TD39563-5	1	NA	MS24762	V8260AZ3+	5	NA	<2	23	Y	
Z	75951	TD39563-6	3	NA	MS24762	V8260AZ3+	5	NA	<2	24	Y	
Z	75952	TD39563-7	1	NA	MS24762	V8260AZ3+	5	NA	<2	25	Y	
Z	75953	TD39563-8	2	NA	MS24762	V8260AZ3+	5	NA	<2	26	Y	
Z	75954	TD39563-9	3	NA	MS24762	V8260AZ3+	5	NA	<2	27	Y	
Z	75955	TD39426-1	11	200X	MS24756	V8260CHEX	5	NA	<2	28	Y	Vial contains headspace. 250UL/50ML
Z	75956	BLK	NA	NA	NA	8260C	5	NA	NA	29	N	CLEANUP BLANK
Z	75957	BFB	NA	NA	NA	8260C	5	NA	NA	30	Y	40UL/40ML
Z	75958	CC6285-40	NA	NA	NA	8260C	5	NA	NA	31	Y	(20+10+20)UL/50ML
Z	75959	BS	NA	NA	NA	8260C	5	NA	NA	32	Y	(12.5+10+5)UL/40ML
Z	75960	BSD	NA	NA	NA	8260C	5	NA	NA	33	Y	(12.5+10+5)UL/40ML

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
Z	75961	BLK	NA	NA	NA	8260C	5	NA	NA	34	N	CLEANUP BLANK
Z	75962	CC6285-0.4	NA	NA	NA	8260C	5	NA	NA	35	N	(0.4+0.2+0.4)UL/100ML
Z	75963	CC6285-0.8	NA	NA	NA	8260C	5	NA	NA	36	N	(0.8+0.4+0.8)UL/100ML
Z	75964	MB	NA	NA	NA	8260C	5	NA	NA	37	Y	
Z	75965	TD39538-7	2	NA	MS24764	V8260LLSL	5	NA	<2	38	Y	RR FOR TBA
Z	75966	TD39562-7	2	NA	MS24764	V8260LLSL	5	NA	<2	39	Y	RR FOR TBA
Z	75967	TD39538-1	3	NA	MS24764	V8260LLSL	5	NA	<2	40	Y	RR FOR TBA
Z	75968	TD39538-2	3	NA	MS24764	V8260LLSL	5	NA	<2	41	Y	RR FOR TBA
Z	75969	TD39538-3	3	NA	MS24764	V8260LLSL	5	NA	<2	42	Y	RR FOR TBA
Z	75970	TD39538-4	3	NA	MS24764	V8260LLSL	5	NA	<2	43	Y	CORR RR FOR F/D AND RR 1X FOR TBA
Z	75971	TD39538-5	3	NA	MS24764	V8260LLSL	5	NA	<2	44	Y	RR FOR TBA
Z	75972	TD39538-6	3	NA	MS24764	V8260LLSL	5	NA	<2	45	Y	RR FOR TBA
Z	75973	TD39562-1	3	NA	MS24764	V8260LLSL	5	NA	<2	46	Y	RR FOR TBA
Z	75974	TD39562-2	3	NA	MS24764	V8260LLSL	5	NA	<2	47	Y	RR FOR TBA
Z	75975	TD39562-3	3	NA	MS24764	V8260LLSL	5	NA	<2	48	Y	RR FOR TBA
Z	75976	TD39562-4	3	NA	MS24764	V8260LLSL	5	NA	<2	49	Y	RR FOR TBA
Z	75977	TD39562-5	3	NA	MS24764	V8260LLSL	5	NA	<2	50	Y	RR FOR TBA
Z	75978	TD39562-6	3	NA	MS24764	V8260LLSL	5	NA	<2	51	Y	RR FOR TBA

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD39499
Account: ITCTXDP - Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Carbonaceous Bod, 5 Day	GP53224/GN98681	2.0	0.0	mg/l	198	209	105.6	81-112%
Chromium, Hexavalent	GN98665	0.010	0.0	mg/l	.1	0.10	101.0	90-108%
Enterococci	MB18096	1	<1	mpn/100ml				

Associated Samples:
Batch GN98665: TD39499-2
Batch GP53224: TD39499-1A
Batch MB18096: TD39499-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD39499
Account: ITCTXDP - Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Carbonaceous Bod, 5 Day	GP53224/GN98681	TD39501-1	mg/l	1.3	1.1	16.7	0-20%
Chromium, Hexavalent	GN98665	TD39499-2	mg/l	0.0	0.0	0.0	0-11%

Associated Samples:
Batch GN98665: TD39499-2
Batch GP53224: TD39499-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD39499
Account: ITCTXDP - Intercontinental Terminals
Project: CARDILCL: Deer Park Release

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GN98665	TD39499-2	mg/l	0.0	.1	0.098	97.0	80-120%

Associated Samples:
Batch GN98665: TD39499-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

8.3
8

SGS Instrument Runlog
Inorganics Analyses

Login Number: TD39499
Account: ITCTXDP - Intercontinental Terminals
Project: CARDILCL: Deer Park Release

File ID: A052319CBOD5.TXT Date Analyzed: 05/23/19 Methods: SM 5210B-2011
Analyst: PK Run ID: GN98681
Parameters: Carbonaceous Bod, 5 Day

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:18	GP53224-MB1	1		
09:20	GP53224-B1	1		
09:36	TD39499-1A	1		
09:38	TD39501-1	1		(sample used for QC only; not part of login TD39499)
09:38	GP53224-D1	1		
09:39	ZZZZZZ	1		
09:41	ZZZZZZ	1		
09:43	ZZZZZZ	1		
09:43	ZZZZZZ	1		
09:44	ZZZZZZ	1		
09:46	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: TD39499
Account: ITCTXDP - Intercontinental Terminals
Project: CARDILCL: Deer Park Release

File ID: A052319CBOD5.TXT Date Analyzed: 05/23/19 Methods: SM 5210B-2011
Run ID: GN98681 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits

(!) Outside of QC limits

General Chemistry

Raw Data

Hexavalent Chromium

Test Title:	XCr
GN Batch:	GN98665
Analyst:	PA
Prep Date:	5/22/2019
Analysis Date:	5/22/2019
Instrument ID:	WC SPEC1

17:21

Method: SM18 CRD

Note: Use 4 for CLP list pointer, 1 for reg. List pointer.

Bottle #	Sample #	Sample Absorbance	BKGRD Abs	CCV/CCB Times	Y Values Corr Sample Absorbance	X Values Conc(mg/l)	Final Vol. (ml)	Sam Vol. (ml)	Dilution	Final Conc.	Units	MDL	RDL
	Cal. Blk.	0	NA	NA	0.000	0.0000							
	0.01	0.010	NA	NA	0.010	0.0100							
	0.05	0.048	NA	NA	0.048	0.0500							
	0.1	0.088	NA	NA	0.088	0.1000							
	0.2	0.183	NA	NA	0.183	0.2000							
	0.4	0.363	NA	NA	0.363	0.4000							
			NA	NA									
			NA	NA									
	ICV	0.092	NA	NA	0.092	0.1009	NA	NA	NA	NA	mg/l	0.002	0.010
	ICB	0.000	NA	NA	0.000	-0.0006	NA	NA	NA	NA	mg/l	0.002	0.010
	GN98665-MB1	0.000	0.000	NA	0.000	-0.0006	25.0	25.0	1	-0.001	mg/l	0.002	0.010
	GN98665-B1	0.092	0.000	NA	0.092	0.1009	25.0	25.0	1	0.101	mg/l	0.002	0.010
1	GN98665-S1	0.089	0.000	NA	0.089	0.0976	25.0	25.0	1	0.098	mg/l	0.002	0.010
1	GN98665-D1	0.000	0.000	NA	0.000	-0.0006	25.0	25.0	1	-0.001	mg/l	0.002	0.010
1	TD39499-2	0.000	0.000	NA	0.000	-0.0006	25.0	25.0	1	-0.001	mg/l	0.002	0.010
	CCV	0.276	0.000	NA	0.276	0.3039	25.0	25.0	1	0.304	mg/l	0.002	0.010
	CCB	0.000	0.000	NA	0.000	-0.0006	25.0	25.0	1	-0.001	mg/l	0.002	0.010

Corr. Coef:	0.99991
Slope:	0.9064
Y intercept:	0.0005

PA 5/22/19

EH 05/23/19

Hexavalent Chromium

SW846 7196A, SM3500 C-D online, SM3500 Cr -B online

GN: 98665

Date/Time: 5/22/19 1721

Instrument: WC SPEC1

Analyst: PA

Standard Curve

CONC, mg/L	ABS
0	0
0.010	0.010
0.050	0.048
0.100	0.088
0.200	0.183
0.400	0.363

Sources

Primary Std. GN171229C
2nd Source GN180320B
10%H2SO4 WC-013-70
DiPhenCarb -69
Spike Std. -71
pH Lot No. HC275020

Lab Number	Initial pH	Final pH	Bottle Number	Initial Wt / Vol	Final Vol, mL	Dilution Factor	Percent Solids	Absorb
ICV				25	25	1		0.092
ICB								0.000
GN98665-MB1								0.000
-B1								0.092
-S1	7		1					0.089
-D1	7		1					0.000
TD39499-2	7		1					0.000
CCV								0.276
CCB								0.002

PA 5/22/19

Reviewed by: EMD 5/23/19

Data Scanned ☐

Laboratory Notebook: WC2017-083

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Form: GN017-3

SGS

05-23-2019 BOD SM 5210B / CBOD SM 5210B Log Book

Date/Time On: 05-23-2019/09:15am
Analyst: P.K
BOD Standard ID: GN190329 A
Incubator ID: 5538
Warm Up Start Time: 9:30
DPD Reagent: GN190206 A
EZ BOD Computer File Name: 9052219 bod.txt
pH/TRC Calibration Logbook #: WC 2019-027

25% H_2SO_4: WC011-1568
25% NaOH: WC011-1569
Bottle ID #: EX2345-136
BOD Seed ID#: WC026-108/111
CBOD Seed ID#: WC026-112
Reviewer: EJH
Date: 05/28/19

Date/Time Off: 05-28-2019/10
Analyst: P.K
Na_2SO_3: WC026-106
BGP: 53223 BGN: 98680
CGP: 53224 CGN: 98681
Dilution Water ID #: WC026-70
Balance ID: WC2 BAL1
Data Scanned: ☐

Lab No.	Bottle #	Temperature	Prepared Dilution	Volume(ml)	Initial pH	Adjusted pH	Initial TRC	Adjusted TRC	Seed Amt. Added (ml)
Dilution Blank*	NA	NA	1	300ml	NA	NA	NA	NA	NA
BOD Method Blank*	NA	NA	1	300ml	NA	NA	NA	NA	3ml
CBOD Method Blank*	NA	NA	1	300ml	NA	NA	NA	NA	3ml
BOD Seed 9	NA	NA	1	300ml	NA	NA	NA	NA	9ml
BOD Seed 15	NA	NA	1	300ml	NA	NA	NA	NA	15ml
BOD Seed 20	NA	NA	1	300ml	NA	NA	NA	NA	20ml
BOD Seed 25	NA	NA	1	300ml	NA	NA	NA	NA	25ml
CBOD Seed 9	NA	NA	1	300ml	NA	NA	NA	NA	9ml
CBOD Seed 15	NA	NA	1	300ml	NA	NA	NA	NA	15ml
CBOD Seed 20	NA	NA	1	300ml	NA	NA	NA	NA	20ml
CBOD Seed 25	NA	NA	1	300ml	NA	NA	NA	NA	25ml
BOD LCS(198ppm)	NA	NA	3	1.5ml	NA	NA	NA	NA	3ml
CBOD LCS(198ppm)	NA	NA	3	1.5ml	NA	NA	NA	NA	3ml
B- TD39471-1✓	1	20.2	1x	50,100,300	7.95	N	0.10	N	3ml
39485-1✓	2	21.0		0.5,1,5,10,25	7.72	N	0	N	3ml
39485-2✓	2	21.3		10,25,50,100	7.17	N	0.54	(5x) Y	high chlorine
39496-1✓	1	21.5		50,100,300	7.91	N	0	N	3ml
39497-1✓	1	19.6		50,100,300	7.61	N	0	N	3ml
39500-2✓	1	20.4		1,5,10,50	7.68	N	0	N	3ml
39513-1✓	1	19.8		50,100,300	7.07	N	0.10	N	3ml

Continued on next page

Correction Codes: #1 - Review Error Correction #2 - Transcription Error #3 - Computer Miscalculation #4 - Analyst Error Correction
Analytical Codes: #A – Sample Composited in the Lab #B – Sample Filtered in the Lab #C – Color Interference/ TRC by test strip
*Any sample dilution greater than 200 ml will require the addition of a Nutrient Pillow.

GN096-02; 08/30/18

SGS

BOD SM 5210B / CBOD SM 5210B Log Book

Lab No.	Bottle #	Temperature	Prepared Dilution	Volume(ml)	Initial pH	Adjusted pH	Initial TRC	Adjusted TRC	Seed Amt. A (ml)
39513-1D1 ✓	1	19.8	1x	50,100,300	7.07	N	0.10	N	3ml
39521-1 ✓	1	20.1		1,3,6,12,30	7.89	N	0	N	3ml
39519-1 ✓	1	20.7		10,50,100,300	8.35	7.20	1.01	y	3ml
39519-2 ✓	1	20.3		10,50,100,300	8.88	7.20	1.80	y	3ml
C-TD39499-1A ✓	1	19.7		50,100,300	8.26	7.20	0	N	3ml
39501-1 ✓	1	20.6		50,100,300	7.68	N	1.06	y	3ml
39501-1D1	1	20.6		50,100,300	7.68	N	1.06	y	3ml
39518-1 ✓	1	20.0		50,100,300	7.35	N	0	N	3ml
39518-2 ✓	1	19.9		50,100,300	5.45	7.09	0	N	3ml
39518-3 ✓	1	20.0		50,100,300	5.51	7.01	0	N	3ml
39518-4 ✓	1	20.5		50,100,300	7.54	N	0	N	3ml
39522-1 ✓	1	20.3		10,50,100,300	7.37	N	2.08	y	3ml
39522-2 ✓	1	20.7		10,50,100,300	7.40	N	2.03	y	3ml
B-TD39523-1 ✓	1	20.8		10,50,100,300	6.54	N	0	N	3ml
39524-1 ✓	1	21.2		0.1,0.5,1,5,10	5.69	7.20	0	N	3ml
39525-1 ✓	1	20.9		0.1,0.5,1,5	6.18	N	0	N	3ml
39526-1 ✓	1	20.4		0.1,0.5,1,5	6.34	N	0	N	3ml
39527-1 ✓	1	20.5		1,5,10,50,100	7.58	N	0	N	3ml
39528-1 ✓	1	20.7		0.1,0.5,1,5	7.53	N	0	N	3ml
									3ml
									3ml
									3ml
									3ml
									3ml
									3ml
									3ml
									3ml
									3ml
									3ml

P.K 05/23/2019

GN096-02; 08/30/18

BOD AutoEZ

Accutest Gulf Coast Laboratories Inc.

BOD Worksheet - bod05-23-19.2.bod Data Summary Printed 05-28-2019

	Parameter	Set	QA	Refr_Name		Refr_DATE	VC	Value	Unit	Run ID
1	BOD5	QA	0	BOD-DB		05/23/19	<	0.05	mg/L	bod05-23-19.bod201
2	CBOD5	QA	0	CBOD-DB		05/23/19	<	0.07	mg/L	bod05-23-19.bod201
3	BOD5	QA	0	Seed Control		05/23/19		74.2	mg/L	bod05-23-19.bod201
4	CBOD5	QA	0	Seed Control		05/23/19	U	66.5	mg/L	bod05-23-19.bod201
5	BOD5	QA	0	GP53223-MB1		05/23/19	<	-0.12	mg/L	bod05-23-19.bod201
6	CBOD5	QA	0	GP53224-MB1		05/23/19	<	-0.17	mg/L	bod05-23-19.bod201
7	BOD5	QA	S	GP53223-B1		05/23/19	U	212	mg/L	bod05-23-19.bod201
8	CBOD5	QA	S	GP53224-B1		05/23/19	U	209	mg/L	bod05-23-19.bod201
9	BOD5	SWL	0	TD39471-1		05/21/19	U	1.36	mg/L	bod05-23-19.bod201
10	BOD5	SWL	0	TD39485-1	30x	05/21/19		156	mg/L	bod05-23-19.bod201
11	BOD5	SWL	0	TD39485-2	6x	05/21/19		25.6	mg/L	bod05-23-19.bod201
12	BOD5	SWL	0	TD39496-1		05/21/19	<	1.22	mg/L	bod05-23-19.bod201
13	BOD5	SWL	0	TD39497-1		05/21/19	<	0.80	mg/L	bod05-23-19.bod201
14	BOD5	SWL	0	TD39500-2	6x	05/21/19		12.1	mg/L	bod05-23-19.bod201
15	BOD5	SWL	0	TD39513-1		05/21/19	<	0.57	mg/L	bod05-23-19.bod201
16	BOD5	SWL	0	GP53223-D1		05/21/19	<	0.85	mg/L	bod05-23-19.bod201
17	BOD5	SWL	0	TD39521-1	10x	05/21/19		33.2	mg/L	bod05-23-19.bod201
18	BOD5	SWL	0	TD39519-1		05/21/19		1.74	mg/L	bod05-23-19.bod201
19	BOD5	SWL	0	TD39519-2		05/21/19	<	0.35	mg/L	bod05-23-19.bod201
20	CBOD5	SWL	0	TD39499-1A		05/21/19	<	1.13	mg/L	bod05-23-19.bod201
21	CBOD5	SWL	0	TD39501-1		05/21/19	<	1.27	mg/L	bod05-23-19.bod201
22	CBOD5	SWL	0	GP53224-D1		05/21/19	<	1.07	mg/L	bod05-23-19.bod201
23	CBOD5	SWL	0	TD39518-1		05/21/19		3.01	mg/L	bod05-23-19.bod201
24	CBOD5	SWL	0	TD39518-2		05/21/19	<	0.12	mg/L	bod05-23-19.bod201
25	CBOD5	SWL	0	TD39518-3		05/21/19	<	0.26	mg/L	bod05-23-19.bod201
26	CBOD5	SWL	0	TD39518-4		05/21/19		2.57	mg/L	bod05-23-19.bod201
27	CBOD5	SWL	0	TD39522-1		05/21/19		2.84	mg/L	bod05-23-19.bod201
28	CBOD5	SWL	0	TD39522-2		05/21/19		2.48	mg/L	bod05-23-19.bod201
29	BOD5	SWL	0	TD39523-1		05/21/19		3.80	mg/L	bod05-23-19.bod201
30	BOD5	SWL	0	TD39524-1	60x	05/21/19		227	mg/L	bod05-23-19.bod201
31	BOD5	SWL	0	TD39525-1	60x	05/21/19		248	mg/L	bod05-23-19.bod201
32	BOD5	SWL	0	TD39526-1	300x	05/21/19		1900	mg/L	bod05-23-19.bod201
33	BOD5	SWL	0	TD39527-1	60x	05/21/19		259	mg/L	bod05-23-19.bod201
34	BOD5	SWL	0	TD39528-1	60x	05/21/19		393	mg/L	bod05-23-19.bod201
35										

B- GN 98680

C- GN 98681

P.K 05/28/2019

EH 05/28/19

9.2

9

BOD AutoEZ™ Fast & Precise Automated BOD Reader

ACCUTEST GULF COAST LABORATORIES INC.

BOD WORKSHEET -bod05-23-19.bod

Method: EPA 405.1(BOD) BOD Seed Lot_ 080401-1-0217-57
SM 5210(CBOD) CBOD Seed Lot_ 250405-1-0709-2

Set Code:	Sample Date	Seed Name	Seed Volume	Setup	By	Second read by
*SWL	??/??/?? to ??/??/??	DS1	3 ml	10:28 05/23/19	PK	PK P K PK
*SWL	??/??/?? to ??/??/??	DS2	3 ml	10:28 05/23/19	PK	PK P K PK

Bottle	Seed	Vol	Type	Set	QA	Sample Name	Sample Date	DO Initial	DO Final	BOD (PPM)	Probe Number	Initial DO Run Information Date	Sample Time	Calib Time	Final DO Run Information Date	Sample Time	Calib Time
1		300	B	QA	0	BOD-DB	05/23/19	8.50	8.45	0.05*	1	05-23-19	09:15	09:09	05-28-19	10:08	10:05
2		300	C	QA	0	CBOD-DB	05/23/19	8.54	8.47	0.07*	2	05-23-19	09:15	09:09	05-28-19	10:08	10:05
3	DS1	9	B	QA	0	Seed Control	05/23/19	8.53	6.37	72.0	3	05-23-19	09:15	09:09	05-28-19	10:08	10:05
4	DS1	15	B	QA	0	Seed Control	05/23/19	8.53	4.88	73.0	4	05-23-19	09:15	09:09	05-28-19	10:08	10:05
5	DS1	20	B	QA	0	Seed Control	05/23/19	8.51	3.35	77.4	1	05-23-19	09:16	09:09	05-28-19	10:10	10:05
6	DS1	25	B	QA	0	Seed Control	05/23/19	8.50	2.28	74.6	2	05-23-19	09:16	09:09	05-28-19	10:10	10:05
7	DS2	9	C	QA	0	Seed Control	05/23/19	8.53	6.78	58.3	3	05-23-19	09:16	09:09	05-28-19	10:10	10:05
8	DS2	15	C	QA	0	Seed Control	05/23/19	8.55	5.39	63.2	4	05-23-19	09:16	09:09	05-28-19	10:10	10:05
9	DS2	20	C	QA	0	Seed Control	05/23/19	8.49	3.63	72.9	1	05-23-19	09:18	09:09	05-28-19	10:11	10:05
10	DS2	25	C	QA	0	Seed Control	05/23/19	8.51	2.54	71.6	2	05-23-19	09:18	09:09	05-28-19	10:11	10:05
11	S1	300	B	QA	0	GP53223-MB1	05/23/19	8.50	7.88	-0.12*	3	05-23-19	09:18	09:09	05-28-19	10:11	10:05
12	S2	300	C	QA	0	GP53224-MB1	05/23/19	8.53	8.03	-0.17*	4	05-23-19	09:18	09:09	05-28-19	10:11	10:05
13	S1	3	B	QA	3	GP53223-B1	05/23/19	8.50	5.69	207	1	05-23-19	09:19	09:09	05-28-19	10:13	10:05
14	S1	3	B	QA	3	GP53223-B1	05/23/19	8.54	5.66	214	2	05-23-19	09:19	09:09	05-28-19	10:13	10:05
15	S1	3	B	QA	3	GP53223-B1	05/23/19	8.54	5.64	216	3	05-23-19	09:19	09:09	05-28-19	10:13	10:05
16	S2	3	C	QA	3	GP53224-B1	05/23/19	8.47	5.86	194	4	05-23-19	09:19	09:09	05-28-19	10:13	10:05
17	S2	3	C	QA	3	GP53224-B1	05/23/19	8.51	5.78	206	1	05-23-19	09:20	09:09	05-28-19	10:14	10:05
18	S2	3	C	QA	3	GP53224-B1	05/23/19	8.47	5.52	228	2	05-23-19	09:20	09:09	05-28-19	10:14	10:05
19	S1	50	B	SW	0	TD39471-1	05/21/19	8.66	8.00	-0.50*	3	05-23-19	09:20	09:09	05-28-19	10:14	10:05
20	S1	100	B	SW	0	TD39471-1	05/21/19	8.84	7.92	0.53*	4	05-23-19	09:20	09:09	05-28-19	10:14	10:05
21	S1	300	B	SW	0	TD39471-1	05/21/19	9.71	7.61	1.36 ✓	1	05-23-19	09:22	09:09	05-28-19	10:15	10:05
22	S1	.5	B	SW	0	TD39485-1	05/21/19	8.54	7.47	196*	2	05-23-19	09:22	09:09	05-28-19	10:15	10:05
23	S1	1	B	SW	0	TD39485-1	05/21/19	8.51	7.52	74.2*	3	05-23-19	09:22	09:09	05-28-19	10:15	10:05
24	S1	5	B	SW	0	TD39485-1	05/21/19	8.45	5.27	146	4	05-23-19	09:22	09:09	05-28-19	10:15	10:05
25	S1 +30	10	B	SW	0	TD39485-1	05/21/19	8.29	2.01	166	1	05-23-19	09:23	09:09	05-28-19	10:17	10:05
26	S1	25	B	SW	0	TD39485-1	05/21/19	7.66	0.02	82.8*	2	05-23-19	09:23	09:09	05-28-19	10:17	10:05
27	S1	10	B	SW	0	TD39485-2	05/21/19	8.52	7.13	19.4*	3	05-23-19	09:23	09:09	05-28-19	10:17	10:05
28	S1	25	B	SW	0	TD39485-2	05/21/19	8.51	5.66	25.3	4	05-23-19	09:23	09:09	05-28-19	10:17	10:05
29	S1 6+	50	B	SW	0	TD39485-2	05/21/19	8.55	3.48	26.0	1	05-23-19	09:25	09:09	05-28-19	10:18	10:05

SGS

Bottle	Seed	Vol	Type	Set	QA	Sample Name	Sample Date	DO Initial	DO Final	BOD (PPM)	Probe Number	Initial DO Run Information Date	Initial DO Run Information Sample Time	Initial DO Run Information Calib Time	Final DO Run Information Date	Final DO Run Information Sample Time	Final DO Run Information Calib Time
30	S1	100	B	SW	0	TD39485-2	05/21/19	8.52	0.02	23.3*	2	05-23-19	09:25	09:09	05-28-19	10:18	10:05
31	S1	50	B	SW	0	TD39496-1	05/21/19	8.67	7.65	1.66*	3	05-23-19	09:25	09:09	05-28-19	10:18	10:05
32	S1	100	B	SW	0	TD39496-1	05/21/19	8.78	7.48	1.67*	4	05-23-19	09:25	09:09	05-28-19	10:18	10:05
33	S1	300	B	SW	0	TD39496-1	05/21/19	9.54	7.58	1.22*	1	05-23-19	09:26	09:09	05-28-19	10:20	10:05
34	S1	50	B	SW	0	TD39497-1	05/21/19	8.65	7.76	0.88*	2	05-23-19	09:26	09:09	05-28-19	10:20	10:05
35	S1	100	B	SW	0	TD39497-1	05/21/19	8.95	8.33	-0.37*	3	05-23-19	09:26	09:09	05-28-19	10:20	10:05
36	S1	300	B	SW	0	TD39497-1	05/21/19	9.92	8.38	0.80*	4	05-23-19	09:26	09:09	05-28-19	10:20	10:05
37	S1	1	B	SW	0	TD39500-2	05/21/19	8.56	7.55	80.2*	1	05-23-19	09:28	09:09	05-28-19	10:21	10:05
38	S1	5	B	SW	0	TD39500-2	05/21/19	8.54	7.57	13.6*	2	05-23-19	09:28	09:09	05-28-19	10:21	10:05
39	S1	10	B	SW	0	TD39500-2	05/21/19	8.54	7.34	13.7*	3	05-23-19	09:28	09:09	05-28-19	10:21	10:05
40	S1	6+ 50	B	SW	0	TD39500-2	05/21/19	8.35	5.60	12.1	4	05-23-19	09:28	09:09	05-28-19	10:21	10:05
41	S1	50	B	SW	0	TD39513-1	05/21/19	8.67	7.65	1.66*	1	05-23-19	09:29	09:09	05-28-19	10:23	10:05
42	S1	100	B	SW	0	TD39513-1	05/21/19	8.88	7.98	0.47*	2	05-23-19	09:29	09:09	05-28-19	10:23	10:05
43	S1	300	B	SW	0	TD39513-1	05/21/19	9.67	8.36	0.57*	3	05-23-19	09:29	09:09	05-28-19	10:23	10:05
44	S1	50	B	SW	0	GP53223-D1	05/21/19	8.66	7.83	0.52*	4	05-23-19	09:29	09:09	05-28-19	10:23	10:05
45	S1	100	B	SW	0	GP53223-D1	05/21/19	8.88	7.97	0.50*	1	05-23-19	09:31	09:09	05-28-19	10:24	10:05
46	S1	300	B	SW	0	GP53223-D1	05/21/19	9.66	8.07	0.85*	2	05-23-19	09:31	09:09	05-28-19	10:24	10:05
47	S1	1	B	SW	0	TD39521-1	05/21/19	8.50	7.88	-36.8*	3	05-23-19	09:31	09:09	05-28-19	10:24	10:05
48	S1	3	B	SW	0	TD39521-1	05/21/19	8.46	7.51	20.7*	4	05-23-19	09:31	09:09	05-28-19	10:24	10:05
49	S1	6	B	SW	0	TD39521-1	05/21/19	8.47	7.03	34.9*	1	05-23-19	09:32	09:09	05-28-19	10:26	10:05
50	S1	12	B	SW	0	TD39521-1	05/21/19	8.38	6.20	35.9	2	05-23-19	09:32	09:09	05-28-19	10:26	10:05
51	S1	10+ 30	B	SW	0	TD39521-1	05/21/19	7.93	4.15	30.4	3	05-23-19	09:32	09:09	05-28-19	10:26	10:05
52	S1	10	B	SW	0	TD39519-1	05/21/19	8.44	7.63	2.02*	4	05-23-19	09:32	09:09	05-28-19	10:26	10:05
53	S1	50	B	SW	0	TD39519-1	05/21/19	8.69	7.27	4.06*	1	05-23-19	09:34	09:09	05-28-19	10:27	10:05
54	S1	100	B	SW	0	TD39519-1	05/21/19	8.88	7.34	2.39*	2	05-23-19	09:34	09:09	05-28-19	10:27	10:05
55	S1	300	B	SW	0	TD39519-1	05/21/19	9.72	7.24	1.74	3	05-23-19	09:34	09:09	05-28-19	10:27	10:05
56	S1	10	B	SW	0	TD39519-2	05/21/19	8.46	7.85	-3.98*	4	05-23-19	09:34	09:09	05-28-19	10:27	10:05
57	S1	50	B	SW	0	TD39519-2	05/21/19	8.72	7.77	1.24*	1	05-23-19	09:35	09:09	05-28-19	10:28	10:05
58	S1	100	B	SW	0	TD39519-2	05/21/19	8.86	7.98	0.41*	2	05-23-19	09:35	09:09	05-28-19	10:28	10:05
59	S1	300	B	SW	0	TD39519-2	05/21/19	9.68	8.59	0.35*	3	05-23-19	09:35	09:09	05-28-19	10:28	10:05
60	S2	50	C	SW	0	TD39499-1A	05/21/19	8.62	8.13	-1.05*	4	05-23-19	09:35	09:09	05-28-19	10:28	10:05
61	S2	100	C	SW	0	TD39499-1A	05/21/19	8.91	8.14	0.31*	1	05-23-19	09:36	09:09	05-28-19	10:30	10:05
62	S2	300	C	SW	0	TD39499-1A	05/21/19	9.84	8.04	1.13*	2	05-23-19	09:36	09:09	05-28-19	10:30	10:05
63	S2	50	C	SW	0	TD39501-1	05/21/19	8.43	7.90	-0.81*	3	05-23-19	09:36	09:09	05-28-19	10:30	10:05
64	S2	100	C	SW	0	TD39501-1	05/21/19	8.08	7.16	0.76*	4	05-23-19	09:36	09:09	05-28-19	10:30	10:05
65	S2	300	C	SW	0	TD39501-1	05/21/19	6.73	4.79	1.27*	1	05-23-19	09:38	09:09	05-28-19	10:31	10:05
66	S2	50	C	SW	0	GP53224-D1	05/21/19	8.41	7.53	1.29*	2	05-23-19	09:38	09:09	05-28-19	10:31	10:05
67	S2	100	C	SW	0	GP53224-D1	05/21/19	8.09	7.29	0.40*	3	05-23-19	09:38	09:09	05-28-19	10:31	10:05
68	S2	300	C	SW	0	GP53224-D1	05/21/19	6.82	5.08	1.07*	4	05-23-19	09:38	09:09	05-28-19	10:31	10:05
69	S2	50	C	SW	0	TD39518-1	05/21/19	8.66	7.64	2.13*	1	05-23-19	09:39	09:09	05-28-19	10:33	10:05

SGS

Bottle	Seed	Vol	Type	Set	QA	Sample Name	Sample Date	DO Initial	DO Final	BOD (PPM)	Probe Number	Initial DO Run Information Date	Initial DO Run Information Sample Time	Initial DO Run Information Calib Time	Final DO Run Information Date	Final DO Run Information Sample Time	Final DO Run Information Calib Time
70	S2	100	C	SW	0	TD39518-1	05/21/19	8.96	7.40	2.68*	2	05-23-19	09:39	09:09	05-28-19	10:33	10:05
71	S2	300	C	SW	0	TD39518-1	05/21/19	10.03	6.35	3.01	3	05-23-19	09:39	09:09	05-28-19	10:33	10:05
72	S2	50	C	SW	0	TD39518-2	05/21/19	8.55	8.12	-1.41*	4	05-23-19	09:39	09:09	05-28-19	10:33	10:05
73	S2	100	C	SW	0	TD39518-2	05/21/19	8.79	8.20	-0.23*	1	05-23-19	09:41	09:09	05-28-19	10:35	10:05
74	S2	300	C	SW	0	TD39518-2	05/21/19	9.49	8.70	0.12*	2	05-23-19	09:41	09:09	05-28-19	10:35	10:05
75	S2	50	C	SW	0	TD39518-3	05/21/19	8.63	8.33	-2.19*	3	05-23-19	09:41	09:09	05-28-19	10:35	10:05
76	S2	100	C	SW	0	TD39518-3	05/21/19	8.82	8.40	-0.74*	4	05-23-19	09:41	09:09	05-28-19	10:35	10:05
77	S2	300	C	SW	0	TD39518-3	05/21/19	9.82	8.89	0.26*	1	05-23-19	09:43	09:09	05-28-19	10:37	10:05
78	S2	50	C	SW	0	TD39518-4	05/21/19	8.66	7.65	2.07*	2	05-23-19	09:43	09:09	05-28-19	10:37	10:05
79	S2	100	C	SW	0	TD39518-4	05/21/19	8.82	7.63	1.57*	3	05-23-19	09:43	09:09	05-28-19	10:37	10:05
80	S2	300	C	SW	0	TD39518-4	05/21/19	9.78	6.54	2.57	4	05-23-19	09:43	09:09	05-28-19	10:37	10:05
81	S2	10	C	SW	0	TD39522-1	05/21/19	8.54	7.86	0.44*	1	05-23-19	09:44	09:09	05-28-19	10:38	10:05
82	S2	50	C	SW	0	TD39522-1	05/21/19	8.48	7.42	2.37*	2	05-23-19	09:44	09:09	05-28-19	10:38	10:05
83	S2	100	C	SW	0	TD39522-1	05/21/19	8.47	7.00	2.41*	3	05-23-19	09:44	09:09	05-28-19	10:38	10:05
84	S2	300	C	SW	0	TD39522-1	05/21/19	8.35	4.84	2.84	4	05-23-19	09:44	09:09	05-28-19	10:38	10:05
85	S2	10	C	SW	0	TD39522-2	05/21/19	8.51	7.86	-0.46*	1	05-23-19	09:46	09:09	05-28-19	10:39	10:05
86	S2	50	C	SW	0	TD39522-2	05/21/19	8.58	7.54	2.25*	2	05-23-19	09:46	09:09	05-28-19	10:39	10:05
87	S2	100	C	SW	0	TD39522-2	05/21/19	8.65	7.27	2.14*	3	05-23-19	09:46	09:09	05-28-19	10:39	10:05
88	S2	300	C	SW	0	TD39522-2	05/21/19	9.01	5.86	2.48	4	05-23-19	09:46	09:09	05-28-19	10:39	10:05
89	S1	10	B	SW	0	TD39523-1	05/21/19	8.59	7.62	6.82*	1	05-23-19	10:29	09:09	05-28-19	10:41	10:05
90	S1	50	B	SW	0	TD39523-1	05/21/19	8.37	6.84	4.72*	2	05-23-19	10:29	09:09	05-28-19	10:41	10:05
91	S1	100	B	SW	0	TD39523-1	05/21/19	7.85	6.02	3.26*	3	05-23-19	10:29	09:09	05-28-19	10:41	10:05
92	S1	300	B	SW	0	TD39523-1	05/21/19	6.19	1.65	3.80	4	05-23-19	10:29	09:09	05-28-19	10:41	10:05
93	S1	.1	B	SW	0	TD39524-1	05/21/19	8.49	7.69	172*	1	05-23-19	10:30	09:09	05-28-19	10:42	10:05
94	S1	.5	B	SW	0	TD39524-1	05/21/19	8.47	7.37	214*	2	05-23-19	10:30	09:09	05-28-19	10:42	10:05
95	S1	1	B	SW	0	TD39524-1	05/21/19	8.38	7.18	137*	3	05-23-19	10:30	09:09	05-28-19	10:42	10:05
96	S1	5	B	SW	0	TD39524-1	05/21/19	8.40	3.88	227	4	05-23-19	10:30	09:09	05-28-19	10:42	10:05
97	S1	10	B	SW	0	TD39524-1	05/21/19	8.54	0.04	233*	1	05-23-19	10:32	09:09	05-28-19	10:44	10:05
98	S1	.1	B	SW	0	TD39525-1	05/21/19	8.53	7.71	232*	2	05-23-19	10:32	09:09	05-28-19	10:44	10:05
99	S1	.5	B	SW	0	TD39525-1	05/21/19	8.42	7.74	-37.6*	3	05-23-19	10:32	09:09	05-28-19	10:44	10:05
100	S1	1	B	SW	0	TD39525-1	05/21/19	8.36	7.17	134*	4	05-23-19	10:32	09:09	05-28-19	10:44	10:05
101	S1	5	B	SW	0	TD39525-1	05/21/19	8.49	3.62	248	1	05-23-19	10:33	09:09	05-28-19	10:45	10:05
102	S1	.1	B	SW	0	TD39526-1	05/21/19	8.45	7.03	2032*	2	05-23-19	10:33	09:09	05-28-19	10:45	10:05
103	S1	.5	B	SW	0	TD39526-1	05/21/19	8.42	4.41	1960	3	05-23-19	10:33	09:09	05-28-19	10:45	10:05
104	S1	1	B	SW	0	TD39526-1	05/21/19	8.36	1.49	1838	4	05-23-19	10:33	09:09	05-28-19	10:45	10:05
105	S1	5	B	SW	0	TD39526-1	05/21/19	8.50	0.04	463*	1	05-23-19	10:35	09:09	05-28-19	10:47	10:05
106	S1	1	B	SW	0	TD39527-1	05/21/19	8.49	6.93	245*	2	05-23-19	10:35	09:09	05-28-19	10:47	10:05
107	S1	5	B	SW	0	TD39527-1	05/21/19	8.42	3.36	259	3	05-23-19	10:35	09:09	05-28-19	10:47	10:05
108	S1	10	B	SW	0	TD39527-1	05/21/19	8.36	0.04	227*	4	05-23-19	10:35	09:09	05-28-19	10:47	10:05
109	S1	50	B	SW	0	TD39527-1	05/21/19	8.05	0.04	43.6*	1	05-23-19	10:36	09:09	05-28-19	10:48	10:05

6ox

6ox

300x

6ox

SGS

Bottle	Seed	Vol	Type	Set	QA	Sample Name	Sample Date	DO Initial	DO Final	BOD (PPM)	Probe Number	Initial DO Run Information Date	Initial DO Run Information Sample Time	Initial DO Run Information Calib Time	Final DO Run Information Date	Final DO Run Information Sample Time	Final DO Run Information Calib Time
110	S1	100	B	SW	0	TD39527-1	05/21/19	7.40	0.03	19.9*	2	05-23-19	10:36	09:09	05-28-19	10:48	10:05
111	S1	.1	B	SW	0	TD39528-1	05/21/19	8.42	8.05	-1118*	3	05-23-19	10:36	09:09	05-28-19	10:48	10:05
112	S1	.5	B	SW	0	TD39528-1	05/21/19	8.44	7.51	112*	4	05-23-19	10:36	09:09	05-28-19	10:48	10:05
113	S1	1	B	SW	0	TD39528-1	05/21/19	8.47	6.54	356*	1	05-23-19	10:38	09:09	05-28-19	10:50	10:05
114	S1	5	B	SW	0	TD39528-1	05/21/19	8.44	1.14	393✓	2	05-23-19	10:38	09:09	05-28-19	10:50	10:05

SGS

Enterococci

ASTM-D6503-99

MB18096

Qauntitray 2000	Lot#: MP017	Exp Date: 12-21-21		Batch
Dilution Water	Lot#: NA	Exp Date: NA		Pipette ID CL16
Enterolert Media	Lot#: F-P610	Exp Date: 5-4-19		Incubator# H2 H1 +/- 0.5
Pos. Control Organism Enterococcus Faecium	Lot#: 5MB24-3	Exp Date: 5-20-19	☑ Positive	☐ Negative
			ResCl2 Test Strip Lot#:	1-18-18

Sample ID	Sample Volume mLs	Flourescent Wells Counted	Dilution Factor	Result (MPN/100 mL)	Residual CL2
+	100	49 large 48 small		>2419.6	
Comments:					
+/-	100	0 large 0 small		<1	
Comments:					
—	100	0 large 0 small		<1	
Comments:					
B/C	100	0 large 0 small		<1	
Comments:					
TD39499-2	100	34 large 17 small		87.1	☐ Pres. ☐ Abs.
Comments: No Dup					
		large small			☐ Pres. ☐ Abs.
Comments:					
		large small			☐ Pres. ☐ Abs.
Comments:					

MS 5-23-19

Form: MB005-06; 02/13/19

*Use the IDEXX Quanti-Tray / 2000 MPN Table to tabulate results. Data Scanned ☐

Analyst / Date / Time Run	5-22-19 MS 15:51	Analyst / Date / Time Read	5-23-19 MS 15:57
Peer Review By / Date	05/23/19	Supervisor Signature	EM