908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

May 10, 2021

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 95192

Project: 60571032 CV18F0126 Red Hill Fuel Storage, HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Four water samples were received February 24, 2021. Written results for the requested analyses are being provided on this May 10, 2021. Revision, 05-10-2021: The Case Narrative has been updated to reflect the correct collection date and ice chest temperatures.

The 525.2 analysis was subcontracted to Weck Laboratories. Their report is separate.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Loren Portwood, Laboratory Director
APPL, Inc.

LP/lac
Enclosure
cc: File

Data Validation Package
for
60571032 CV18F0126 Red Hill Fuel Storage
APPL SDG 95192
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

Case Narrative	3
Sample Management Records	7
Sample Results	13
QC Forms	30
Method 8015B Calibration Data	66
Method 8015B Raw Data	142
Method 524.2 Calibration Data	200
Method 524.2 Raw Data	255
Method 200.8 Calibration Data	273
Method 200.8 Raw Data	318
Inorganic Analyses and Calibration Raw Data	338

CASE NARRATIVE

Case Narrative

ARF: 95192

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Four water samples were received February 24, 2021 at –1.6°C and –2.0°C. The sample group was assigned Analytical Request Form (ARF) number 95192.

Sample Preparation and Analysis Information:

For the EPA 8015B analysis, the samples were extracted according to EPA method 3520C.

For the EPA 524.2 analysis, the samples were purged according to the method.

For the EPA 200.8 analysis, the samples were digested according to EPA method 200.8/11.2.

For the SM5310B, the samples were prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B: The samples were re-extracted past the recommended holding time at the request of the client. Both sets of data were reported.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
95192	02/24/21	ERH1286	BA27502	02/23/21 8:05:00 AM	WATER	200.8	ICPMS 200.8 H2O TOTAL
95192	02/24/21	ERH1286	BA27502	02/23/21 8:05:00 AM	WATER	EPA 524.2	EPA 524.2
95192	02/24/21	ERH1286	BA27502	02/23/21 8:05:00 AM	WATER	SM 5310C	DOC WATERS BY SM 5310C
95192	02/24/21	ERH1286	BA27502	02/23/21 8:05:00 AM	WATER	EPA 8015B-eHL	EPA 8015B TPH LIQ-LIQ
95192	02/24/21	ERH1286	BA27502	02/23/21 8:05:00 AM	WATER	EPA 8015B-eHL	EPA 8015B TPH LIQ-LIQ SGC
95192	02/24/21	ERH1286	BA27502	02/23/21 8:05:00 AM	WATER	EPA 8015B-eHL	EPA 8015B TPH LIQ-LIQ RE-EXTRACT
95192	02/24/21	ERH1285	BA27503	02/23/21 8:00:00 AM	WATER	EPA 524.2	EPA 524.2
95192	02/24/21	ERH1287	BA27504	02/23/21 8:50:00 AM	WATER	200.8	ICPMS 200.8 H2O TOTAL
95192	02/24/21	ERH1287	BA27504	02/23/21 8:50:00 AM	WATER	EPA 524.2	EPA 524.2
95192	02/24/21	ERH1287	BA27504	02/23/21 8:50:00 AM	WATER	SM 5310C	DOC WATERS BY SM 5310C
95192	02/24/21	ERH1287	BA27504	02/23/21 8:50:00 AM	WATER	EPA 8015B-eHL	EPA 8015B TPH LIQ-LIQ
95192	02/24/21	ERH1287	BA27504	02/23/21 8:50:00 AM	WATER	EPA 8015B-eHL	EPA 8015B TPH LIQ-LIQ SGC
95192	02/24/21	ERH1287	BA27504	02/23/21 8:50:00 AM	WATER	EPA 8015B-eHL	EPA 8015B TPH LIQ-LIQ RE-EXTRACT

Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form

95192

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-954-4536 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 1-2
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: AAR
Date Received: 02/24/21 Time: 10:55
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): -1.6,-2.0°C
Color: VFRG/C-Blk/SF-RdB/SU
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date: 03/03/21

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Report MS/MSD/DUPs when AECOM sample used
SVOC's by 525 subbed out to Weck Labs.
Only analyze BA21686 & BA21689 if the samples are detect for VOC's/SVOC's
VOC: Add DBCP, 1-2,3-TCP, see attached analyte list
TPH: Analyze C8-18 & C10-25 only
FR: email ftp info to Margie, Stella, trommelfanger@lab-data.com & jcanlas@lab-data.com
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@

Sample Distribution:
GC: 2-$TPHO
Extractions: 2-_MWE011HX
VOA: 3-$524
Metals: 2-$2008(Pb)
Wetlab: 2-$5310CD
Other: 2-_M2008, 3-SUB-WECK

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID		APPL ID	Sampled		Analyses Requested
1.	ERH1286	LCSD	BA27502W	02/23/21	08:05	$2008(Pb), $524, $5310CD, $TPHO, SUB-WECK -- See Comments
2.	ERH1285	LCSD	BA27503W	02/23/21	08:00	$524 -- See Comments
3.	ERH1287	LCSD	BA27504W	02/23/21	08:50	$2008(Pb), $524, $5310CD, $TPHO, SUB-WECK -- See Comments
4.	ERH1288	LCSD	BA27505W	02/23/21	09:03	SUB-WECK -- See Comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC

APPL Sample Receipt Form

ARF# **95192**

Sample	Container Type	Count	p
BA27502	[6] PL 500mL - HNO3	1	1.3
	[13] VOAs - HCL	3	NA
	[17] Amber Liter	3	NA
	[32] Clear VOA - H2SO4	3	NA
	[39] Amber Liter, HCL prsvd	2	1.3
BA27503	[13] VOAs - HCL	3	NA
BA27504	[6] PL 500mL - HNO3	1	1.3
	[13] VOAs - HCL	3	NA
	[17] Amber Liter	3	NA
	[32] Clear VOA - H2SO4	3	NA
	[39] Amber Liter, HCL prsvd	2	1.3
BA27505	[17] Amber Liter	3	NA

Sample	Container Type	Count	p

95192

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 1 of 2

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-954-4536

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813
Fax: 808-523-8950

Attn: ~~Brooke Gottmeier~~ Margie Fabian Pascua

Email: ~~brooke.gottmeier@aecom.com~~ margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 512-419-6709

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813
Fax: 808-523-8950

Attn: Sheree Smith

Email: sheree.smith@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Sampler (Print): Gavin Mura

Purchase Order Number: 102604

Sampler (Signature):

Date Shipped: 02/23/21

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	EPA 524.2 VOCs 8260 BTEX,TPHg	EPA 200.8 Total Lead 8260 DCA 8011 EDB	8015 TPH-D 8015/8015C TPH-d/o w/SGT	5310 DOC* 8270D SIM PAHs short list	EPA 525.2 SVOCs**	8270D Phenol	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	9060A DOC	
ERH1286	Pre-Chlorination	02/23/21	8:05	HST	12	✓			X	X	X	X	X										*5310 DOC is field filtered
ERH1285	Trip Blank	02/23/21	8:00	HST	3	✓			X														** SVOCs (full list)
ERH1287	Post-Chlorination	02/23/21	8:50	HST	6	✓			X			X											
ERH1288	Field Blank	02/23/21	9:03	HST	1	✓							X										

~~*Analyze TPH w/SGT only if TPH-d/o detected.~~

~~**MS/MSD: 8011, 8015, 8260, 8270, 8270SIM~~

~~TPH-d/o & PAHs need liquid-liquid extraction.~~

Shuttle Temperature: IRB 0.8/-1.6, 0.4/-2.0°C

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Gavin Mura (AECOM)	02/23/21	12:10					

Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					2-24-21	1055	

See page 2 for Container Preservative and Sampling Information

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 2 of 2

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-954-4536

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: ~~Brooke Gottmeier~~ Margie Fabian Pascua

Email: ~~brooke.gottmeier@aecom.com~~ margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 512-419-6709

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Sheree Smith

Email: sheree.smith@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Sampler (Print): Gavin Mura

Purchase Order Number: 102604

Sampler (Signature):

Date Shipped: 02/23/21

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil		~~EPA 525.2 SVOCs*~~ ~~8260C BTEX,TPH-g~~	~~8260B DCA~~ ~~EPA 200.8~~ ~~8011 EDB~~ ~~Total Lead~~	~~8015C TPH-d/o~~ ~~8015 TPH-D~~	3630/8015C TPH-d/o w/ SGT	8270D SIM PAHs short list	8270D Phenol	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	9060A DOC	
ERH1287	Post-Chlorination	02/23/21	8:50	HST	6	✓				X	X	X												*SVOCs (full list)
ERH1288	Field Blank	02/23/21	9:03	HST	3	✓				X														

*Analyze TPH w/SGT only if TPH-d/o detected.

** MS/MSD: 8011, 8015, 8260, 8270, 8270SIM

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Gavin Mura (AECOM)	02/23/21	12:10					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**
					2-24-21	1055	

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 95192**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 02/24/21

2) Coolers: Number of Coolers: 2

3) YES Were custody seals present and intact?
How many? 4 Name/Date on seal? See Below

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of calibrated thermometer used: IRB CF: -2.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 0.8/-1.6	2: 0.4/-2.0	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) No Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of the "basic" preserved samples for Cyanide > 12, Sulfide >9, Hexchrom >9?

22) NO Were unpreserved VOA Vials received for VOA Dept analysis?

23) NA If "yes", are the unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: HC029115
Lab notified if pH was not adequate:

Notes/Deficiencies:

CUSTODY SEAL
AECOM (808)521-3051
Initials GM Date 02/23/21

Personnel receiving samples: MS Second reviewer: AK
Personnel labeling samples: RB
Project manager notified: MS Date/Time of notification 02/24/21
Name of client notified: Date/Time of notification

SAMPLE RESULTS

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1286

APPL ID: BA27502

Sample Collection Date: 02/23/21

QCG: #RHDWWRLI-261889-2618

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-e	C10-C25	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/02/21
EPA 8015B-e	C8-C18	340 ++	320	300.0	150.0	ug/L	02/25/21	03/02/21
EPA 8015B-e	SURROGATE: OCTACOSANE (S)	87.4	60-142			%	02/25/21	03/02/21
EPA 8015B-e	SURROGATE: ORTHO-TERPHENYL (S)	72.2	56-125			%	02/25/21	03/02/21

++(T4I) The analyst has noted that the chromatogram of this sample includes a dominant peak(s) which is not indicative of petroleum hydrocarbons.

Quant Method:	AERH0212.M
Run #:	302009
Instrument:	Apollo
Sequence:	210302
Dilution Factor:	1
Initials:	LA

Printed: 03/26/21 10:05:58 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1286

APPL ID: BA27502

Sample Collection Date: 02/23/21

QCG: #RHDWW-210225A-262115

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-e	C10-C25	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/17/21
EPA 8015B-e	C8-C18	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/17/21
EPA 8015B-e	SURROGATE: OCTACOSANE (S)	96.1	60-142			%	02/25/21	03/17/21
EPA 8015B-e	SURROGATE: ORTHO-TERPHENYL (S)	76.8	56-125			%	02/25/21	03/17/21

Quant Method: DEC0208.M
Run #: 307234
Instrument: Apollo
Sequence: 210307
Dilution Factor: 1
Initials: BTI

Printed: 03/26/21 10:05:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1286

APPL ID: BA27502

Sample Collection Date: 02/23/21

QCG: #RHDWW-210317A-262275

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-e	C10-C25	300.0 U	320	300.0	150.0	ug/L	03/17/21	03/23/21
EPA 8015B-e	C8-C18	300.0 U	320	300.0	150.0	ug/L	03/17/21	03/23/21
EPA 8015B-e	SURROGATE: OCTACOSANE (S)	90.2	60-142			%	03/17/21	03/23/21
EPA 8015B-e	SURROGATE: ORTHO-TERPHENYL (S)	67.5	56-125			%	03/17/21	03/23/21

Quant Method: AERH0307.M
Run #: 322066
Instrument: Apollo
Sequence: 210322
Dilution Factor: 1
Initials: BTI

Printed: 03/26/21 10:05:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1287

APPL ID: BA27504

Sample Collection Date: 02/23/21

QCG: #RHDWWRLI-261889-2618

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-e	C10-C25	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/02/21
EPA 8015B-e	C8-C18	190 ++J	320	300.0	150.0	ug/L	02/25/21	03/02/21
EPA 8015B-e	SURROGATE: OCTACOSANE (S)	87.5	60-142			%	02/25/21	03/02/21
EPA 8015B-e	SURROGATE: ORTHO-TERPHENYL (S)	75.7	56-125			%	02/25/21	03/02/21

J = Estimated value.
++(T4I) The analyst has noted that the chromatogram of this sample includes a dominant peak(s) which is not indicative of petroleum hydrocarbons.

Quant Method:	AERH0212.M
Run #:	302010
Instrument:	Apollo
Sequence:	210302
Dilution Factor:	1
Initials:	LA

Printed: 03/26/21 10:05:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1287

APPL ID: BA27504

Sample Collection Date: 02/23/21

QCG: #RHDWW-210225A-262115

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-e	C10-C25	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/17/21
EPA 8015B-e	C8-C18	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/17/21
EPA 8015B-e	SURROGATE: OCTACOSANE (S)	93.6	60-142			%	02/25/21	03/17/21
EPA 8015B-e	SURROGATE: ORTHO-TERPHENYL (S)	77.8	56-125			%	02/25/21	03/17/21

Quant Method: DEC0208.M
Run #: 307235
Instrument: Apollo
Sequence: 210307
Dilution Factor: 1
Initials: BTI

Printed: 03/26/21 10:05:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1287

APPL ID: BA27504

Sample Collection Date: 02/23/21

QCG: #RHDWW-210317A-262275

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-e	C10-C25	300.0 U	320	300.0	150.0	ug/L	03/17/21	03/23/21
EPA 8015B-e	C8-C18	300.0 U	320	300.0	150.0	ug/L	03/17/21	03/23/21
EPA 8015B-e	SURROGATE: OCTACOSANE (S)	89.5	60-142			%	03/17/21	03/23/21
EPA 8015B-e	SURROGATE: ORTHO-TERPHENYL (S)	67.1	56-125			%	03/17/21	03/23/21

Quant Method: AERH0307.M
Run #: 322067
Instrument: Apollo
Sequence: 210322
Dilution Factor: 1
Initials: BTI

Printed: 03/26/21 10:05:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
ARF: 95192
Sample ID: ERH1286
APPL ID: BA27502
Sample Collection Date: 02/23/21
QCG: #524-210301AZ-261549

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.04 U	0.5	0.04	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,3-TRICHLOROPROPANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DIBROMO-3-CHLOROPROPANE	0.92 U	2.0	0.92	0.23	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
EPA 524.2	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/01/21	03/01/21

Quant Method: Z5240301.M
Run #: 0301Z15
Instrument: ZEUS
Sequence: 210301
Dilution Factor: 1
Initials: CHE

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APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1286

APPL ID: BA27502

Sample Collection Date: 02/23/21

QCG: #524-210301AZ-261549

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
EPA 524.2	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
EPA 524.2	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	METHYLENE CHLORIDE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
EPA 524.2	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/01/21	03/01/21
EPA 524.2	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/01/21	03/01/21
EPA 524.2	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
EPA 524.2	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/01/21	03/01/21
EPA 524.2	SURROGATE: 1,2-DICHLOROETHANE-	108	70-130			%	03/01/21	03/01/21
EPA 524.2	SURROGATE: 4-BROMOFLUOROBENZ	104	70-130			%	03/01/21	03/01/21

Quant Method: Z5240301.M
Run #: 0301Z15
Instrument: ZEUS
Sequence: 210301
Dilution Factor: 1
Initials: CHE

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EPA 524.2

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908 North Temperance Avenue
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Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
ARF: 95192
Sample ID: ERH1285
APPL ID: BA27503
Sample Collection Date: 02/23/21
QCG: #524-210301AZ-261549

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.04 U	0.5	0.04	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,3-TRICHLOROPROPANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DIBROMO-3-CHLOROPROPANE	0.92 U	2.0	0.92	0.23	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
EPA 524.2	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/01/21	03/01/21

Quant Method: Z5240301.M
Run #: 0301Z16
Instrument: ZEUS
Sequence: 210301
Dilution Factor: 1
Initials: CHE

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APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

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1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
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Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1285

APPL ID: BA27503

Sample Collection Date: 02/23/21

QCG: #524-210301AZ-261549

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
EPA 524.2	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
EPA 524.2	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	METHYLENE CHLORIDE	2.0	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
EPA 524.2	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/01/21	03/01/21
EPA 524.2	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/01/21	03/01/21
EPA 524.2	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
EPA 524.2	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/01/21	03/01/21
EPA 524.2	SURROGATE: 1,2-DICHLOROETHANE-	106	70-130			%	03/01/21	03/01/21
EPA 524.2	SURROGATE: 4-BROMOFLUOROBENZ	102	70-130			%	03/01/21	03/01/21

Quant Method: Z5240301.M
Run #: 0301Z16
Instrument: ZEUS
Sequence: 210301
Dilution Factor: 1
Initials: CHE

Printed: 03/03/21 2:21:57 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

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1001 Bishop Street, Suite 1600
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908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
ARF: 95192
Sample ID: ERH1287
APPL ID: BA27504
Sample Collection Date: 02/23/21
QCG: #524-210301AZ-261549

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.04 U	0.5	0.04	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,3-TRICHLOROPROPANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DIBROMO-3-CHLOROPROPANE	0.92 U	2.0	0.92	0.23	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
EPA 524.2	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
EPA 524.2	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/01/21	03/01/21

Quant Method: Z5240301.M
Run #: 0301Z17
Instrument: ZEUS
Sequence: 210301
Dilution Factor: 1
Initials: CHE

Printed: 03/03/21 2:21:57 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95192

Sample ID: ERH1287

APPL ID: BA27504

Sample Collection Date: 02/23/21

QCG: #524-210301AZ-261549

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
EPA 524.2	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
EPA 524.2	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	METHYLENE CHLORIDE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
EPA 524.2	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/01/21	03/01/21
EPA 524.2	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
EPA 524.2	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/01/21	03/01/21
EPA 524.2	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
EPA 524.2	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/01/21	03/01/21
EPA 524.2	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
EPA 524.2	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
EPA 524.2	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/01/21	03/01/21
EPA 524.2	SURROGATE: 1,2-DICHLOROETHANE-	108	70-130			%	03/01/21	03/01/21
EPA 524.2	SURROGATE: 4-BROMOFLUOROBENZ	103	70-130			%	03/01/21	03/01/21

Quant Method: Z5240301.M
Run #: 0301Z17
Instrument: ZEUS
Sequence: 210301
Dilution Factor: 1
Initials: CHE

Printed: 03/03/21 2:21:57 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH1286
Sample Collection Date: 02/23/21

ARF: 95192
APPL ID: BA27502

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
200.8	LEAD (PB)	0.093 J	0.2	0.18	0.09	ug/L	1	03/08/21	03/08/21

J = Estimated value.

Printed: 03/09/21 10:00:59 AM

APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH1287
Sample Collection Date: 02/23/21

ARF: 95192
APPL ID: BA27504

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
200.8	LEAD (PB)	2.1	0.2	0.18	0.09	ug/L	1	03/08/21	03/08/21

Printed: 03/09/21 10:00:59 AM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1286

APPL ID: BA27502

Sample Collection Date: 02/23/21

ARF: 95192

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
SM 5310C	DISSOLVED ORGANIC CARB	1.1	0.5	0.35	0.13	mg/L	1	03/02/21	03/02/21

Printed: 03/03/21 2:02:10 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1287

APPL ID: BA27504

Sample Collection Date: 02/23/21

ARF: 95192

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
SM 5310C	DISSOLVED ORGANIC CARB	0.26 J	0.5	0.35	0.13	mg/L	1	03/02/21	03/02/21

J = Estimated value.

Printed: 03/03/21 2:02:10 PM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

EPA 8015B-eHL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 95192

Case No: 95192 Date Analyzed: 03/17/21

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
210225A-BLK	Blank	60-142	90.1		56-125	75.4	
210225A-LCS	Lab Control Spike	60-142	93.3		56-125	88.0	
210225A-LCSD	Lab Control SpikeD	60-142	93.3		56-125	88.0	
BA27502	ERH1286	60-142	96.1		56-125	76.8	
BA27504	ERH1287	60-142	93.6		56-125	77.8	

Comments: Batch: #RHDWW-210225A

EPA 8015B-eHL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 95192

Case No: 95192 Date Analyzed: 03/23/21

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
210317A-BLK	Blank	60-142	92.6		56-125	69.2	
210317A-LCS	Lab Control Spike	60-142	94.7		56-125	79.3	
210317A-LCSD	Lab Control SpikeD	60-142	91.3		56-125	76.0	
BA27502	ERH1286	60-142	90.2		56-125	67.5	
BA27504	ERH1287	60-142	89.5		56-125	67.1	

Comments: Batch: #RHDWW-210317A

EPA 8015B-eHL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 95192

Case No: 95192 Date Analyzed: 03/02/21

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
261889-BLK	Blank	60-142	85		56-125	73.1	
261889-LCS	Lab Control Spike	60-142	82.7		56-125	81.3	
261889-LCSD	Lab Control SpikeD	60-142	83.3		56-125	80.7	
BA27502	ERH1286	60-142	87.4		56-125	72.2	
BA27504	ERH1287	60-142	87.5		56-125	75.7	

Comments: Batch: #RHDWWRLI-2618

EPA 8015B-eH

Form 4

Blank Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/17/21
Matrix:	WATER	Instrument:	Apollo
Blank ID:	210225A-BLK	Time Analyzed:	1442

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210225A-BLK	Blank	307229	03/17/21 1442
210225A-LCS	Lab Control Spike	307230	03/17/21 1511
210225A-LCSD	Lab Control SpikeD	307231	03/17/21 1540
BA27502	ERH1286	307234	03/17/21 1706
BA27504	ERH1287	307235	03/17/21 1734

Comments: Batch: #RHDWW-210225A

EPA 8015B-eH

Form 4

Blank Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/23/21
Matrix:	WATER	Instrument:	Apollo
Blank ID:	210317A-BLK	Time Analyzed:	1354

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210317A-BLK	Blank	322061	03/23/21 1354
210317A-LCS	Lab Control Spike	322062	03/23/21 1423
210317A-LCSD	Lab Control SpikeD	322063	03/23/21 1452
BA27502	ERH1286	322066	03/23/21 1618
BA27504	ERH1287	322067	03/23/21 1647

Comments: Batch: #RHDWW-210317A

EPA 8015B-eH

Form 4

Blank Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/02/21
Matrix:	WATER	Instrument:	Apollo
Blank ID:	261889-BLK	Time Analyzed:	1511

APPL ID.	Client Sample No.	File ID.	Date Analyzed
261889-BLK	Blank	302004	03/02/21 1511
261889-LCS	Lab Control Spike	302005	03/02/21 1540
261889-LCSD	Lab Control SpikeD	302006	03/02/21 1608
BA27502	ERH1286	302009	03/02/21 1733
BA27504	ERH1287	302010	03/02/21 1801

Comments: Batch: #RHDWWRLI-2618

Method Blank
EPA 8015B TPH LIQ-LIQ

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **261889W-27502 - 261889**
Batch ID: #RHDWWRLI-261889

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	C10-C25	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/02/21
BLANK	C8-C18	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/02/21
BLANK	SURROGATE: OCTACOSANE (S)	85	60-142			%	02/25/21	03/02/21
BLANK	SURROGATE: ORTHO-TERPHEN	73.1	56-125			%	02/25/21	03/02/21

Quant Method:AERH0212.M
Run #:302004
Instrument:Apollo
Sequence:210302
Initials:LA

GC SC-Blank-REG MDLs-DOD
Printed: 03/26/21 10:06:36 AM

Method Blank
EPA 8015B TPH LIQ-LIQ SGC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **210225W-27502 - 262115**
Batch ID: #RHDWW-210225A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	C10-C25	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/17/21
BLANK	C8-C18	300.0 U	320	300.0	150.0	ug/L	02/25/21	03/17/21
BLANK	SURROGATE: OCTACOSANE (S)	90.1	60-142			%	02/25/21	03/17/21
BLANK	SURROGATE: ORTHO-TERPHEN	75.4	56-125			%	02/25/21	03/17/21

Quant Method: DEC0208.M
Run #: 307229
Instrument: Apollo
Sequence: 210307
Initials: BTI

GC SC-Blank-REG MDLs-DOD
Printed: 03/26/21 10:06:36 AM

Method Blank

EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **210317W-27502 - 262275**
Batch ID: #RHDWW-210317A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	C10-C25	300.0 U	320	300.0	150.0	ug/L	03/17/21	03/23/21
BLANK	C8-C18	300.0 U	320	300.0	150.0	ug/L	03/17/21	03/23/21
BLANK	SURROGATE: OCTACOSANE (S)	92.6	60-142			%	03/17/21	03/23/21
BLANK	SURROGATE: ORTHO-TERPHEN	69.2	56-125			%	03/17/21	03/23/21

Quant Method: AERH0307.M
Run #: 322061
Instrument: Apollo
Sequence: 210322
Initials: BTI

GC SC-Blank-REG MDLs-DOD
Printed: 03/26/21 10:06:36 AM

EPA 8015B-eH

Form 4

LCS Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/17/21
Matrix:	WATER	Instrument:	Apollo
LCS ID:	210225A-LCS	Time Analyzed:	1511

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210225A-BLK	Blank	307229	03/17/21 1442
210225A-LCS	Lab Control Spike	307230	03/17/21 1511
210225A-LCSD	Lab Control SpikeD	307231	03/17/21 1540
BA27502	ERH1286	307234	03/17/21 1706
BA27504	ERH1287	307235	03/17/21 1734

Comments: Batch: #RHDWW-210225A

EPA 8015B-eH

Form 4

LCS Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/23/21
Matrix:	WATER	Instrument:	Apollo
LCS ID:	210317A-LCS	Time Analyzed:	1423

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210317A-BLK	Blank	322061	03/23/21 1354
210317A-LCS	Lab Control Spike	322062	03/23/21 1423
210317A-LCSD	Lab Control SpikeD	322063	03/23/21 1452
BA27502	ERH1286	322066	03/23/21 1618
BA27504	ERH1287	322067	03/23/21 1647

Comments: Batch: #RHDWW-210317A

EPA 8015B-eH

Form 4

LCS Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/02/21
Matrix:	WATER	Instrument:	Apollo
LCS ID:	261889-LCS	Time Analyzed:	1540

APPL ID.	Client Sample No.	File ID.	Date Analyzed
261889-BLK	Blank	302004	03/02/21 1511
261889-LCS	Lab Control Spike	302005	03/02/21 1540
261889-LCSD	Lab Control SpikeD	302006	03/02/21 1608
BA27502	ERH1286	302009	03/02/21 1733
BA27504	ERH1287	302010	03/02/21 1801

Comments: Batch: #RHDWWRLI-2618

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **210225W-27502 LCS - 261889**
Batch ID: #RHDWWRLI-261889

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
C10-C25	2000	1820	1840	91.0	92.0	41-113	1.1	30
C8-C18	2000	1910	1860	95.5	93.0	36-132	2.7	30
SURROGATE: OCTACOSANE (S)	150	124	125	82.7	83.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	122	121	81.3	80.7	56-125		

Comments:

Primary	SPK	DUP
Quant Method :	AERH0212.M	AERH0212.M
Extraction Date :	02/25/21	02/25/21
Analysis Date :	03/02/21	03/02/21
Instrument :	Apollo	Apollo
Run :	302005	302006
Initials :	LA	

Printed: 03/26/21 10:06:29 AM
APPL Standard LCSD

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ SGC

APPL ID: **210225W-27502 LCS - 262115**
Batch ID: #RHDWW-210225A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
C10-C25	2000	1730	1730	86.5	86.5	41-113	0.0	30
C8-C18	2000	1330	1340	66.5	67.0	36-132	0.75	30
SURROGATE: OCTACOSANE (S)	150	140	140	93.3	93.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	132	132	88.0	88.0	56-125		

Comments:

Primary	SPK	DUP
Quant Method :	DEC0208.M	DEC0208.M
Extraction Date :	02/25/21	02/25/21
Analysis Date :	03/17/21	03/17/21
Instrument :	Apollo	Apollo
Run :	307230	307231
Initials :	BTI	

Printed: 03/26/21 10:06:29 AM
APPL Standard LCSD

Laboratory Control Spike Recoveries
EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: **210317W-27502 LCS - 262275**
Batch ID: #RHDWW-210317A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
C10-C25	2000	1490	1430	74.5	71.5	41-113	4.1	30
C8-C18	2000	1120	1070	56.0	53.5	36-132	4.6	30
SURROGATE: OCTACOSANE (S)	150	142	137	94.7	91.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	119	114	79.3	76.0	56-125		

Comments:

Primary	SPK	DUP
Quant Method :	AERH0307.M	AERH0307.M
Extraction Date :	03/17/21	03/17/21
Analysis Date :	03/23/21	03/23/21
Instrument :	Apollo	Apollo
Run :	322062	322063
Initials :	BTI	

Printed: 03/26/21 10:06:29 AM
APPL Standard LCSD

EPA 524.2

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 95192

Case No: 95192 Date Analyzed: 03/01/21

Matrix: WATER Instrument: ZEUS

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
210301AZ-LCS	Lab Control Spike	70-130	102		70-130	102	
210301AZ-LCSD	Lab Control SpikeD	70-130	102		70-130	103	
210301AZ-BLK	Blank	70-130	105		70-130	104	
BA27502	ERH1286	70-130	108		70-130	104	
BA27503	ERH1285	70-130	106		70-130	102	
BA27504	ERH1287	70-130	108		70-130	103	

Comments: Batch: #524-210301AZ

EPA 524.2

Form 4

Blank Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/01/21
Matrix:	WATER	Instrument:	ZEUS
Blank ID:	210301AZ-BLK	Time Analyzed:	1853

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210301AZ-LCS	Lab Control Spike	0301Z12	03/01/21 1806
210301AZ-LCSD	Lab Control SpikeD	0301Z13	03/01/21 1830
210301AZ-BLK	Blank	0301Z14	03/01/21 1853
BA27502	ERH1286	0301Z15	03/01/21 1916
BA27503	ERH1285	0301Z16	03/01/21 1939
BA27504	ERH1287	0301Z17	03/01/21 2003

Comments: Batch: #524-210301AZ

Method Blank
EPA 524.2

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **210301W-27502 - 261549**
Batch ID: #524-210301AZ

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	1,1,2-TRICHLORO-1,2,2-TRIFLUO	0.04 U	0.5	0.04	0.02	ug/L	03/01/21	03/01/21
BLANK	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
BLANK	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
BLANK	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	1,2,3-TRICHLOROPROPANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
BLANK	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
BLANK	1,2-DIBROMO-3-CHLOROPROPA	0.92 U	2.0	0.92	0.23	ug/L	03/01/21	03/01/21
BLANK	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
BLANK	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
BLANK	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
BLANK	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
BLANK	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/01/21	03/01/21
BLANK	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/01/21	03/01/21
BLANK	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21

Quant Method:Z5240301.M
Run #:0301Z14
Instrument:ZEUS
Sequence:210301
Initials:CHE

GC SC-Blank-REG MDLs-DOD
Printed: 03/26/21 3:45:10 PM

Method Blank
EPA 524.2

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **210301W-27502 - 261549**
Batch ID: #524-210301AZ

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/01/21	03/01/21
BLANK	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/01/21	03/01/21
BLANK	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/01/21	03/01/21
BLANK	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	METHYLENE CHLORIDE	0.45 U	0.5	0.45	0.15	ug/L	03/01/21	03/01/21
BLANK	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/01/21	03/01/21
BLANK	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/01/21	03/01/21
BLANK	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/01/21	03/01/21
BLANK	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/01/21	03/01/21
BLANK	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/01/21	03/01/21
BLANK	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/01/21	03/01/21
BLANK	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/01/21	03/01/21
BLANK	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/01/21	03/01/21
BLANK	SURROGATE: 1,2-DICHLOROET	105	70-130			%	03/01/21	03/01/21
BLANK	SURROGATE: 4-BROMOFLUORO	104	70-130			%	03/01/21	03/01/21

Quant Method:Z5240301.M
Run #:0301Z14
Instrument:ZEUS
Sequence:210301
Initials:CHE

GC SC-Blank-REG MDLs-DOD
Printed: 03/26/21 3:45:10 PM

EPA 524.2

Form 4

LCS Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/01/21
Matrix:	WATER	Instrument:	ZEUS
LCS ID:	210301AZ-LCS	Time Analyzed:	1806

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210301AZ-LCS	Lab Control Spike	0301Z12	03/01/21 1806
210301AZ-LCSD	Lab Control SpikeD	0301Z13	03/01/21 1830
210301AZ-BLK	Blank	0301Z14	03/01/21 1853
BA27502	ERH1286	0301Z15	03/01/21 1916
BA27503	ERH1285	0301Z16	03/01/21 1939
BA27504	ERH1287	0301Z17	03/01/21 2003

Comments: Batch: #524-210301AZ

Laboratory Control Spike Recoveries

EPA 524.2

APPL ID: **210301W-27502 LCS - 261549**
Batch ID: #524-210301AZ

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,1,1,2-TETRACHLOROETHANE	10.00	10.4	11.0	104	110	70-130	5.6	20
1,1,1-TRICHLOROETHANE	10.00	10.4	10.3	104	103	70-130	0.97	20
1,1,2,2-TETRACHLOROETHANE	10.00	10.2	10.7	102	107	70-130	4.8	20
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	10.00	10.2	9.74	102	97.4	70-130	4.6	20
1,1,2-TRICHLOROETHANE	10.00	10.6	11.0	106	110	70-130	3.7	20
1,1-DICHLOROETHANE	10.00	10.2	10.5	102	105	70-130	2.9	20
1,1-DICHLOROETHENE	10.00	10.3	9.94	103	99.4	70-130	3.6	20
1,1-DICHLOROPROPENE	10.00	10.6	10.2	106	102	70-130	3.8	20
1,2,3-TRICHLOROBENZENE	10.00	10.6	10.8	106	108	70-130	1.9	20
1,2,3-TRICHLOROPROPANE	10.00	10.6	11.0	106	110	70-130	3.7	20
1,2,4-TRICHLOROBENZENE	10.00	10.3	10.4	103	104	70-130	0.97	20
1,2,4-TRIMETHYLBENZENE	10.00	10.9	10.9	109	109	70-130	0.0	20
1,2-DIBROMO-3-CHLOROPROPANE	10.00	9.64	9.73	96.4	97.3	70-130	0.93	20
1,2-DIBROMOETHANE	10.00	10.8	11.1	108	111	70-130	2.7	20
1,2-DICHLOROBENZENE	10.00	10.3	10.4	103	104	70-130	0.97	20
1,2-DICHLOROETHANE	10.00	10.1	10.3	101	103	70-130	2.0	20
1,2-DICHLOROPROPANE	10.00	10.4	10.6	104	106	70-130	1.9	20
1,3,5-TRIMETHYLBENZENE	10.00	10.6	10.8	106	108	70-130	1.9	20
1,3-DICHLOROBENZENE	10.00	10.0	10.2	100	102	70-130	2.0	20
1,3-DICHLOROPROPANE	10.00	10.4	10.8	104	108	70-130	3.8	20
1,4-DICHLOROBENZENE	10.00	10.3	10.4	103	104	70-130	0.97	20
2,2-DICHLOROPROPANE	10.00	9.86	9.72	98.6	97.2	70-130	1.4	20
2-CHLOROTOLUENE	10.00	10.4	10.6	104	106	70-130	1.9	20
4-CHLOROTOLUENE	10.00	10.4	10.6	104	106	70-130	1.9	20

Comments:

Primary	SPK	DUP
Quant Method :	Z5240301.M	Z5240301.M
Extraction Date :	03/01/21	03/01/21
Analysis Date :	03/01/21	03/01/21
Instrument :	ZEUS	ZEUS
Run :	0301Z12	0301Z13
Initials :	CHE	

Printed: 03/26/21 3:45:16 PM
APPL Standard LCSD

Laboratory Control Spike Recoveries
EPA 524.2

APPL ID: **210301W-27502 LCS - 261549**
Batch ID: #524-210301AZ

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	10.3	10.5	103	105	70-130	1.9	20
BROMOBENZENE	10.00	9.89	10.2	98.9	102	70-130	3.1	20
BROMOCHLOROMETHANE	10.00	9.58	10.1	95.8	101	70-130	5.3	20
BROMODICHLOROMETHANE	10.00	10.4	10.8	104	108	70-130	3.8	20
BROMOFORM	10.00	9.43	9.64	94.3	96.4	70-130	2.2	20
BROMOMETHANE	10.00	12.2	12.1	122	121	70-130	0.82	20
C-1,2-DICHLOROETHENE	10.00	10.1	10.2	101	102	70-130	0.99	20
C-1,3-DICHLOROPROPENE	10.00	10.6	11.0	106	110	70-130	3.7	20
CARBON TETRACHLORIDE	10.00	10.5	10.2	105	102	70-130	2.9	20
CHLOROBENZENE	10.00	10.3	10.5	103	105	70-130	1.9	20
CHLOROETHANE	10.00	10.2	10.2	102	102	70-130	0.0	20
CHLOROFORM	10.00	10.5	10.5	105	105	70-130	0.0	20
CHLOROMETHANE	10.00	9.74	9.79	97.4	97.9	70-130	0.51	20
DIBROMOCHLOROMETHANE	10.00	9.65	9.90	96.5	99.0	70-130	2.6	20
DIBROMOMETHANE	10.00	10.2	10.8	102	108	70-130	5.7	20
DICHLORODIFLUOROMETHANE	10.00	9.98	10.2	99.8	102	70-130	2.2	20
ETHYLBENZENE	10.00	10.7	10.7	107	107	70-130	0.0	20
HEXACHLOROBUTADIENE	10.00	10.5	10.0	105	100	70-130	4.9	20
ISOPROPYLBENZENE	10.00	10.5	10.4	105	104	70-130	0.96	20
METHYLENE CHLORIDE	10.00	10.2	10.4	102	104	70-130	1.9	20
MTBE	10.00	10.6	10.9	106	109	70-130	2.8	20
N-BUTYLBENZENE	10.00	11.3	10.8	113	108	70-130	4.5	20
N-PROPYLBENZENE	10.00	10.5	10.6	105	106	70-130	0.95	20
NAPHTHALENE	10.00	10.1	10.2	101	102	70-130	0.99	20

Comments:

Primary	SPK	DUP
Quant Method :	Z5240301.M	Z5240301.M
Extraction Date :	03/01/21	03/01/21
Analysis Date :	03/01/21	03/01/21
Instrument :	ZEUS	ZEUS
Run :	0301Z12	0301Z13
Initials :	CHE	

Printed: 03/26/21 3:45:16 PM
APPL Standard LCSD

Laboratory Control Spike Recoveries

EPA 524.2

APPL ID: **210301W-27502 LCS - 261549**
Batch ID: #524-210301AZ

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
P-ISOPROPYLTOLUENE	10.00	10.7	10.4	107	104	70-130	2.8	20
SEC-BUTYLBENZENE	10.00	10.9	10.6	109	106	70-130	2.8	20
STYRENE	10.00	10.9	11.1	109	111	70-130	1.8	20
T-1,2-DICHLOROETHENE	10.00	10.5	10.5	105	105	70-130	0.0	20
T-1,3-DICHLOROPROPENE	10.00	10.6	10.8	106	108	70-130	1.9	20
TERT-BUTYLBENZENE	10.00	10.5	10.3	105	103	70-130	1.9	20
TETRACHLOROETHENE	10.00	10.3	9.96	103	99.6	70-130	3.4	20
TOLUENE	10.00	10.4	10.5	104	105	70-130	0.96	20
TRICHLOROETHENE	10.00	10.4	10.4	104	104	70-130	0.0	20
TRICHLOROFLUOROMETHANE	10.00	10.2	10.1	102	101	70-130	0.99	20
VINYL CHLORIDE	10.00	10.1	9.81	101	98.1	70-130	2.9	20
XYLENES	30.0	32.5	32.4	108	108	70-130	0.31	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	25.5	25.4	102	102	70-130		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.5	25.8	102	103	70-130		

Comments:

Primary	SPK	DUP
Quant Method :	Z5240301.M	Z5240301.M
Extraction Date :	03/01/21	03/01/21
Analysis Date :	03/01/21	03/01/21
Instrument :	ZEUS	ZEUS
Run :	0301Z12	0301Z13
Initials :	CHE	

Printed: 03/26/21 3:45:16 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 95192
Matrix: Water
ID: 0301Z00.D

SDG No: 95192
Date Analyzed: 03/01/21
Instrument: ZEUS
Time Analyzed: 13:19

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.2ug/L HCL 3/1/21	0301Z02.D	03/01/21 14:13
2		0.5ug/L HCL 3/1/21	0301Z03.D	03/01/21 14:37
3		1ug/L HCL 3/1/21	0301Z04.D	03/01/21 15:00
4		5ug/L HCL 3/1/21	0301Z05.D	03/01/21 15:23
5		10ug/L HCL 3/1/21	0301Z06.D	03/01/21 15:46
6		20ug/L HCL 3/1/21	0301Z07.D	03/01/21 16:10
7		40ug/L HCL 3/1/21	0301Z08.D	03/01/21 16:33
8		100ug/L HCL 3/1/21	0301Z09.D	03/01/21 16:56
9		(SS) 10ug/L HCl 3/1/	0301Z11.D	03/01/21 17:43
10	Lab Control Spike	210301 LCS 10ug/L	0301Z12.D	03/01/21 18:06
11	Lab Control SpikeD	210301A LCSD 10ug/L	0301Z13.D	03/01/21 18:30
12	Blank	210301A BLK	0301Z14.D	03/01/21 18:53
13	ERH1286	BA27502W01	0301Z15.D	03/01/21 19:16
14	ERH1285	BA27503W01	0301Z16.D	03/01/21 19:39
15	ERH1287	BA27504W01	0301Z17.D	03/01/21 20:03
16		Ending CCV 10ug/L 3/	0301Z18.D	03/01/21 20:26
17				
18				
19				
20				
21				
22				

m/e		
50	15.0 - 40.0% of mass 95	15.5
75	30.0 - 60.0% of mas 95	45.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.8
174	50.0 - 200.0% of mass 95	109.2
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	99.3
177	5.0 - 9.0% of mass 176	6.8

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 0301Z06.D Date Analyzed: 03/01/21

Instrument ID: ZEUS Time Analyzed: 15:46

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3412560	6.13	2763330	9.59	1804340	12.15
	UPPER LIMIT	6825120	6.30	5526660	9.76	3608680	12.32
	LOWER LIMIT	1706280	5.96	1381665	9.42	902170	11.98
	SAMPLE NO.						
01	(SS) 10ug/L HCl 3/1/21	3351880	6.13	2751650	9.60	1815850	12.15
02	210301 LCS 10ug/L	3363680	6.13	2777460	9.59	1830480	12.15
03	210301A LCSD 10ug/L	3290470	6.13	2711940	9.59	1795740	12.14
04	210301A BLK	3138590	6.13	2572950	9.59	1718790	12.15
05	BA27502W01	3093980	6.13	2513370	9.59	1688530	12.15
06	BA27503W01	3003370	6.13	2440170	9.59	1629240	12.15
07	BA27504W01	2934130	6.13	2420180	9.59	1617970	12.15
08	Ending CCV 10ug/L 3/1/	3015480	6.13	2465280	9.59	1662450	12.15
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

200.8

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 95192
Matrix: WATER
Blank ID: 210308A-BLK

SDG No: 95192
Date Analyzed: 03/08/21
Instrument: Megatron
Time Analyzed: 1700

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210308A-MS	Matrix Spike	210308A	03/08/21 1854
210308A-LCSD	Lab Control SpikeD	210308A	03/08/21 1742
210308A-LCS	Lab Control Spike	210308A	03/08/21 1721
210308A-BLK	Blank	210308A	03/08/21 1700
BA27504	ERH1287	210308A	03/08/21 1844
BA27502	ERH1286	210308A	03/08/21 1833

Comments: Batch: #2008-210308A

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
200.8	LEAD (PB)	0.18 U	0.2	0.18	0.09	ug/L	03/08/21	03/08/21	#2008-210308A-BA27504

Metals SC-Blank-REG MDLs
Printed: 03/09/21 10:01:06 AM

200.8

Form 4

LCS Summary

Lab Name: APPL, Inc.
SDG No: 95192
Case No: 95192
Date Analyzed: 03/08/21
Matrix: WATER
Instrument: Megatron
LCS ID: 210308A-LCS
Time Analyzed: 1721

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210308A-MS	Matrix Spike	210308A	03/08/21 1854
210308A-LCSD	Lab Control SpikeD	210308A	03/08/21 1742
210308A-LCS	Lab Control Spike	210308A	03/08/21 1721
210308A-BLK	Blank	210308A	03/08/21 1700
BA27504	ERH1287	210308A	03/08/21 1844
BA27502	ERH1286	210308A	03/08/21 1833

Comments: Batch: #2008-210308A

Printed: 03/09/21 10:00:30 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
200.8	LEAD (PB)	100.0	98.5	101	98.5	101	2.5	20	80-120	03/08/21	03/08/21	03/08/21	03/08/21	#2008-210308A-BA27504

Comments:

Matrix Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Sample ID: BA27504
Client ID: ERH1287

Method	Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group	QC Sample
200.8	LEAD (PB)	250	2.1	222	88.0	80-120	03/08/21	03/08/21	#2008-210308A	BA27504

Comments:

SM 5310C

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 95192

Case No: 95192 Date Analyzed:

Matrix: WATER Instrument: TICTOC

Blank ID: Time Analyzed:

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA27504	ERH1287	33	03/02/21 1429
210301A-LCS	Lab Control Spike	34	03/02/21 1509
210301A-LCSD	Lab Control SpikeD	35	03/02/21 1550
BA27502	ERH1286	36	03/02/21 1630
210301A-DUP	Duplicate	37	03/02/21 1743
BA27504	ERH1287	37	03/02/21 1707

Comments: Batch: #5310C-210301A

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 5310C	DISSOLVED ORGA	0.35 U	0.5	0.35	0.13	mg/L	03/02/21	03/02/21	#5310C-210301A-BA27504

Wetlab SC-Blank-REG MDLs
Printed: 03/03/21 2:01:10 PM

SM 5310C

Form 4

LCS Summary

Lab Name:	APPL, Inc.	SDG No:	95192
Case No:	95192	Date Analyzed:	03/02/21
Matrix:	WATER	Instrument:	TICTOC
LCS ID:	210301A-LCS	Time Analyzed:	1509

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA27504	ERH1287	33	03/02/21 1429
210301A-LCS	Lab Control Spike	34	03/02/21 1509
210301A-LCSD	Lab Control SpikeD	35	03/02/21 1550
BA27502	ERH1286	36	03/02/21 1630
210301A-DUP	Duplicate	37	03/02/21 1743
BA27504	ERH1287	37	03/02/21 1707

Comments: Batch: #5310C-210301A

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 5310C	DISSOLVED ORGANIC CA	5	5.18	5.29	104	106	2.1	20	80-120	03/02/21	03/02/21	03/02/21	03/02/21	#5310C-210301A-BA27504

Comments:

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: BA27504
Client ID: ERH1287

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 95192

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SM 5310C	DISSOLVED ORG	BA27504	0.26	0.25	3.9	20	0.13	0.5	mg/L	03/02/21	03/02/21	03/02/21	03/02/21

Printed: 03/03/21 2:01:28 PM

Dup-SCII (NoMC)

ORGANICS

Calibration Data

TPH Extractables
DEC0208

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 02/08/21
Instrument: Apollo

Initials: SS

208001.D 208002.D 208003.D 208004.D 208005.D 208006.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	SC	Decanoic Acid(S)	733363	895035	1021149	1091042	1115406	1161581					1002929	16	SC		
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
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35																	

0.459751

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210208\208001.D Vial: 1
Acq On : 2-8-21 12:45:58 Operator:
Sample : Decanoic Acid- 1 2/8/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Feb 8 15:56 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210208\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Mon Feb 08 15:54:54 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

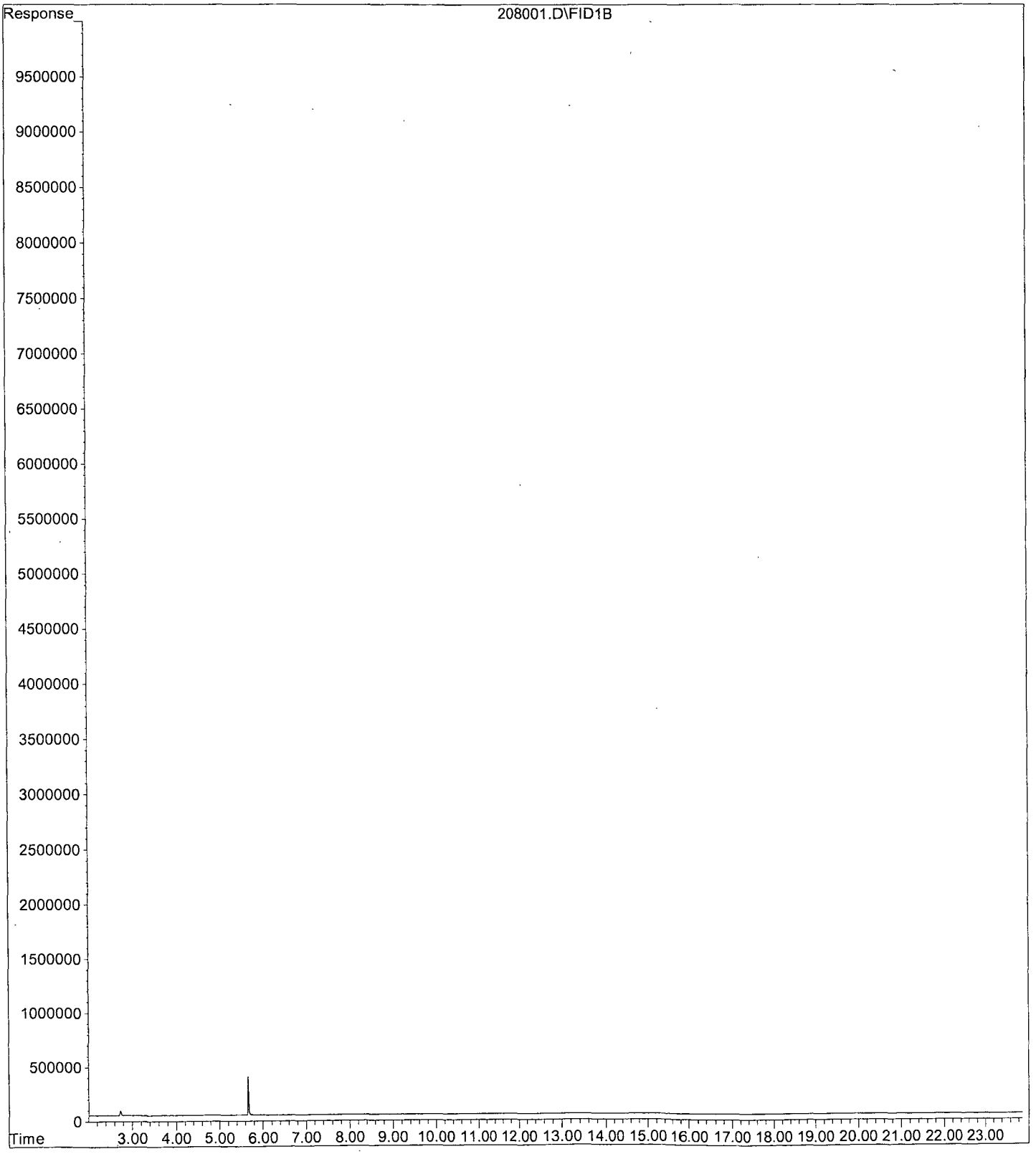
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.66	4400177	2.194 ppb
Surrogate Spike 24.000	Recovery	=	9.14%

Target Compounds

Target Compounds

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

File : G:\APOLLO\DATA\210208\208001.D
Operator :
Acquired : 2-8-21 12:45:58 using AcqMethod TPHSN.M
Instrument : Apollo
Sample Name: Decanoic Acid- 1 2/8/21
Misc Info : water
Vial Number: 1



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210208\208002.D Vial: 2
Acq On : 2-8-21 13:13:57 Operator:
Sample : Decanoic Acid- 2 2/8/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Feb 8 15:56 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210208\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Mon Feb 08 15:54:54 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

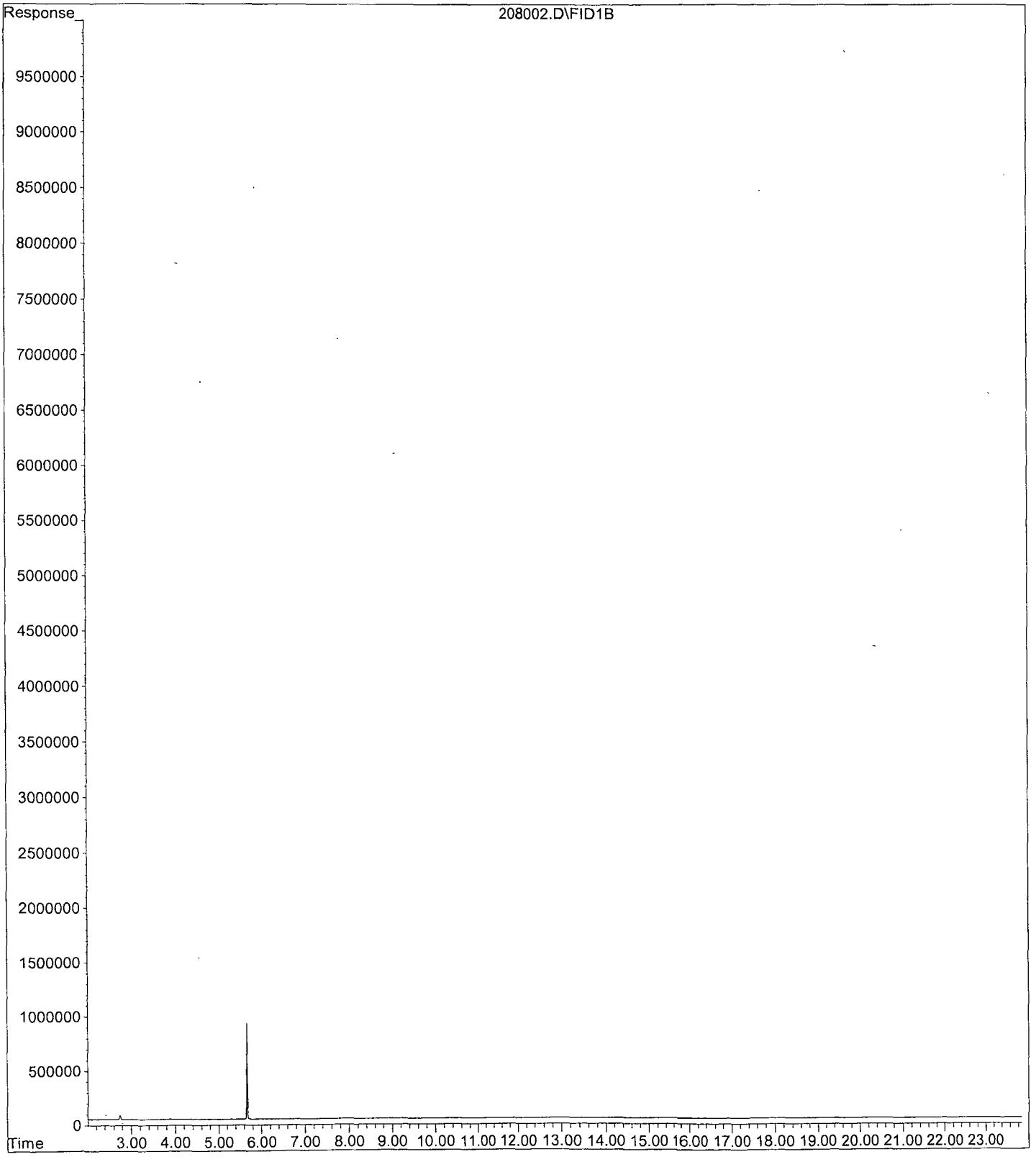
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.66	10740416	5.355 ppb
Surrogate Spike 24.000		Recovery =	22.31%

Target Compounds

Target Compounds

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

File : G:\APOLLO\DATA\210208\208002.D
Operator :
Acquired : 2-8-21 13:13:57 using AcqMethod TPHSN.M
Instrument : Apollo
Sample Name: Decanoic Acid- 2 2/8/21
Misc Info : water
Vial Number: 2



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210208\208003.D Vial: 3
Acq On : 2-8-21 13:42:06 Operator:
Sample : Decanoic Acid- 3 2/8/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Feb 8 15:56 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210208\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Mon Feb 08 15:54:54 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

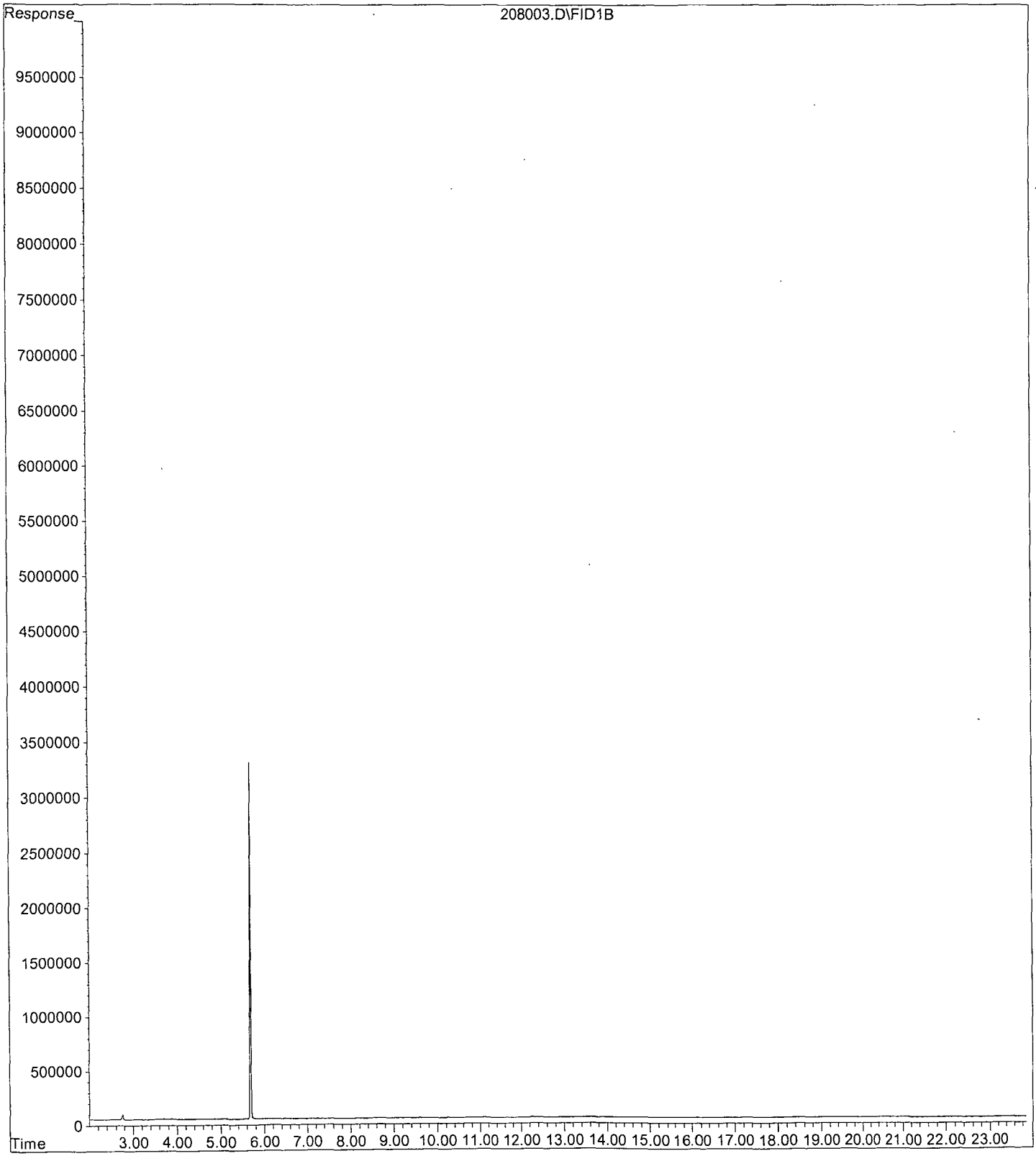
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.68	49015149	24.436 ppb
Surrogate Spike 24.000		Recovery =	101.82%

Target Compounds

Target Compounds

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

File : G:\APOLLO\DATA\210208\208003.D
Operator :
Acquired : 2-8-21 13:42:06 using AcqMethod TPHSN.M
Instrument : Apollo
Sample Name: Decanoic Acid- 3 2/8/21
Misc Info : water
Vial Number: 3



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210208\208004.D Vial: 4
Acq On : 2-8-21 14:10:19 Operator:
Sample : Decanoic Acid- 4 2/8/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Feb 8 15:56 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210208\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Mon Feb 08 15:54:54 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

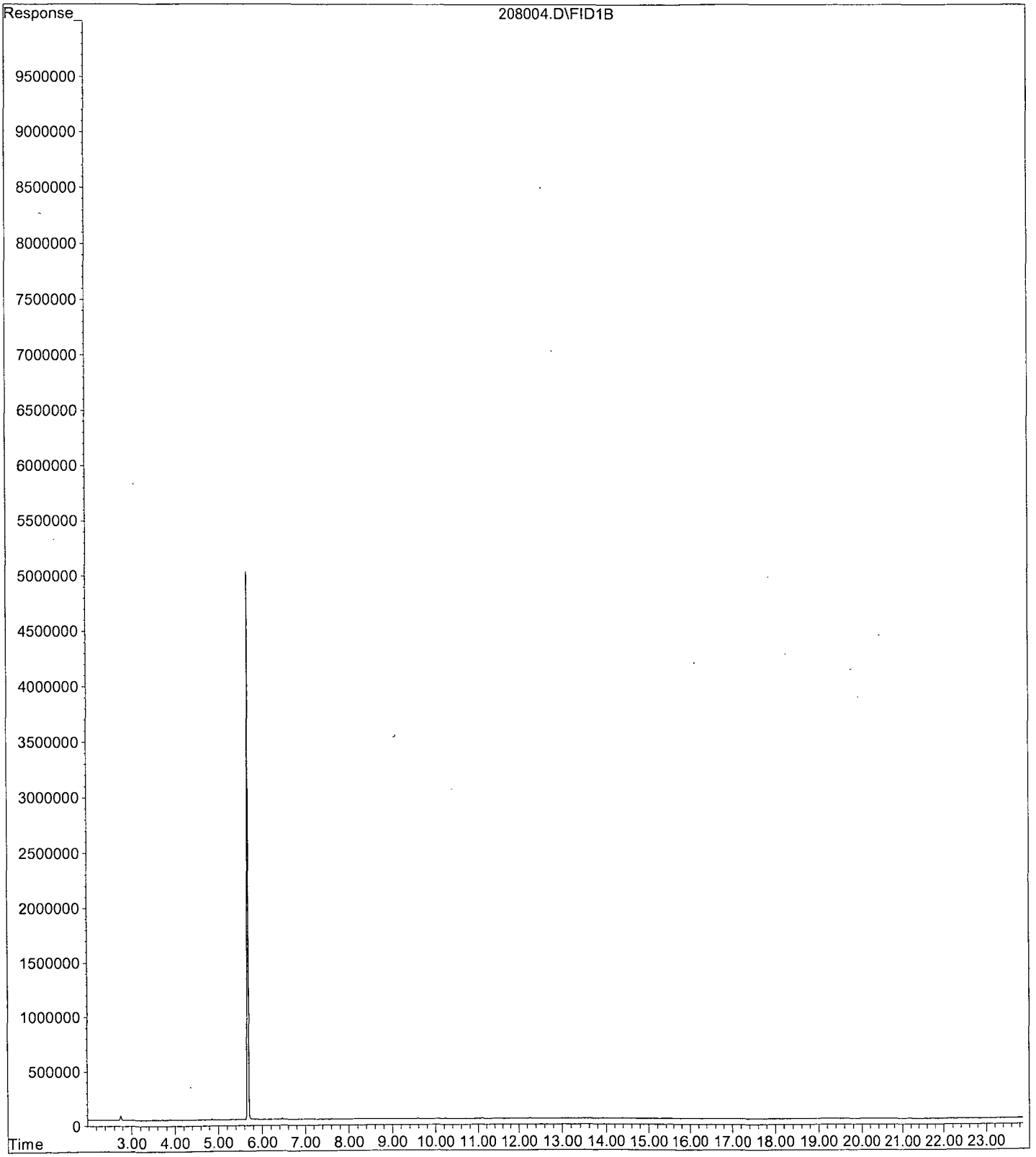
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.69	78555004	39.163 ppb
Surrogate Spike 24.000		Recovery =	163.18%

Target Compounds

Target Compounds

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

File : G:\APOLLO\DATA\210208\208004.D
Operator :
Acquired : 2-8-21 14:10:19 using AcqMethod TPHSN.M
Instrument : Apollo
Sample Name: Decanoic Acid- 4 2/8/21
Misc Info : water
Vial Number: 4



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210208\208005.D Vial: 5
Acq On : 2-8-21 14:38:32 Operator:
Sample : Decanoic Acid- 5 2/8/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Feb 8 15:56 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210208\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Mon Feb 08 15:54:54 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

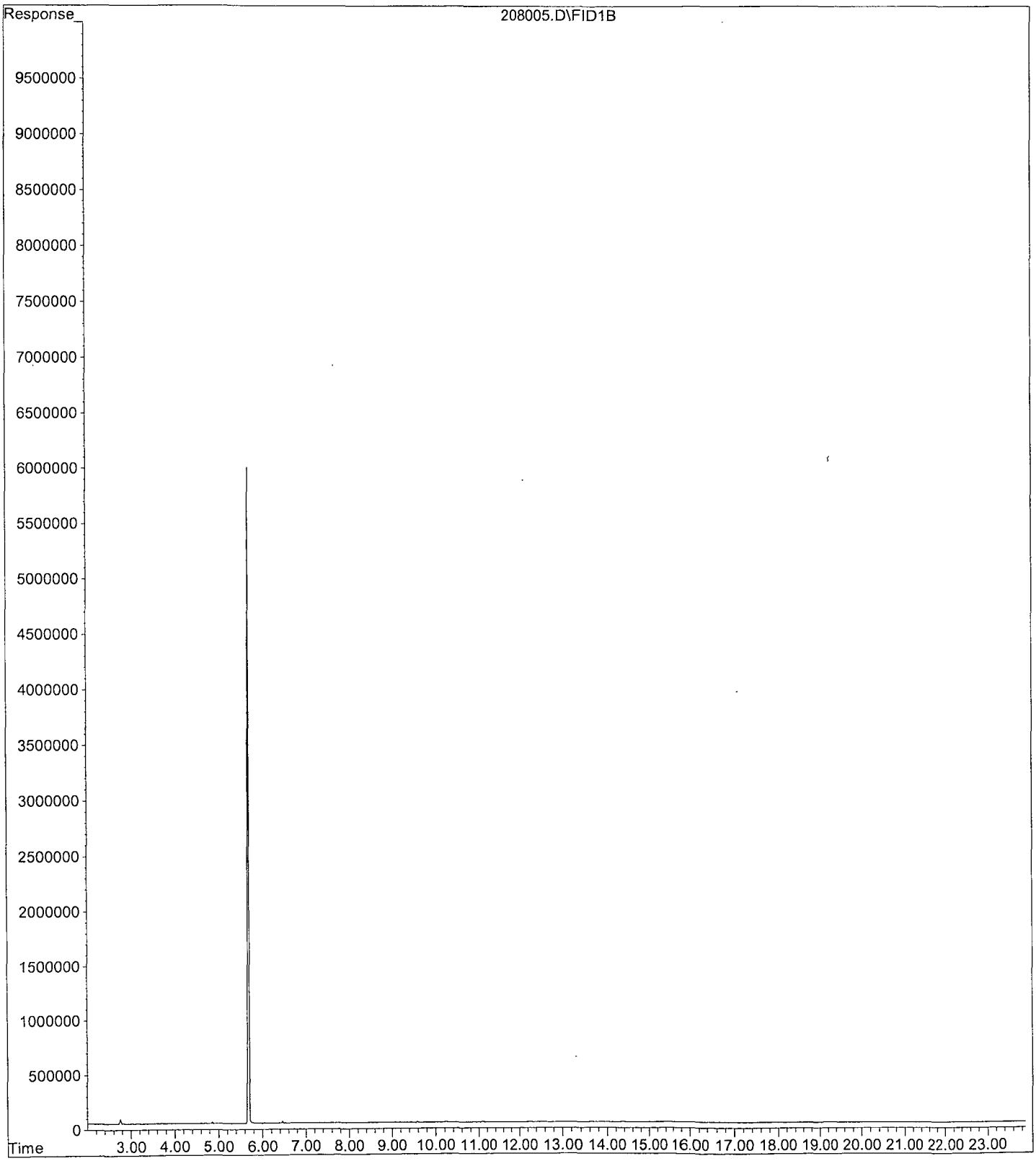
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.70	107078961	53.383 ppb
Surrogate Spike 24.000		Recovery =	222.43%

Target Compounds

Target Compounds

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

File : G:\APOLLO\DATA\210208\208005.D
Operator :
Acquired : 2-8-21 14:38:32 using AcqMethod TPHSN.M
Instrument : Apollo
Sample Name: Decanoic Acid- 5 2/8/21
Misc Info : water
Vial Number: 5



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210208\208006.D Vial: 6
Acq On : 2-8-21 15:06:47 Operator:
Sample : Decanoic Acid- 6 2/8/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Feb 8 15:56 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210208\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Mon Feb 08 15:54:54 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

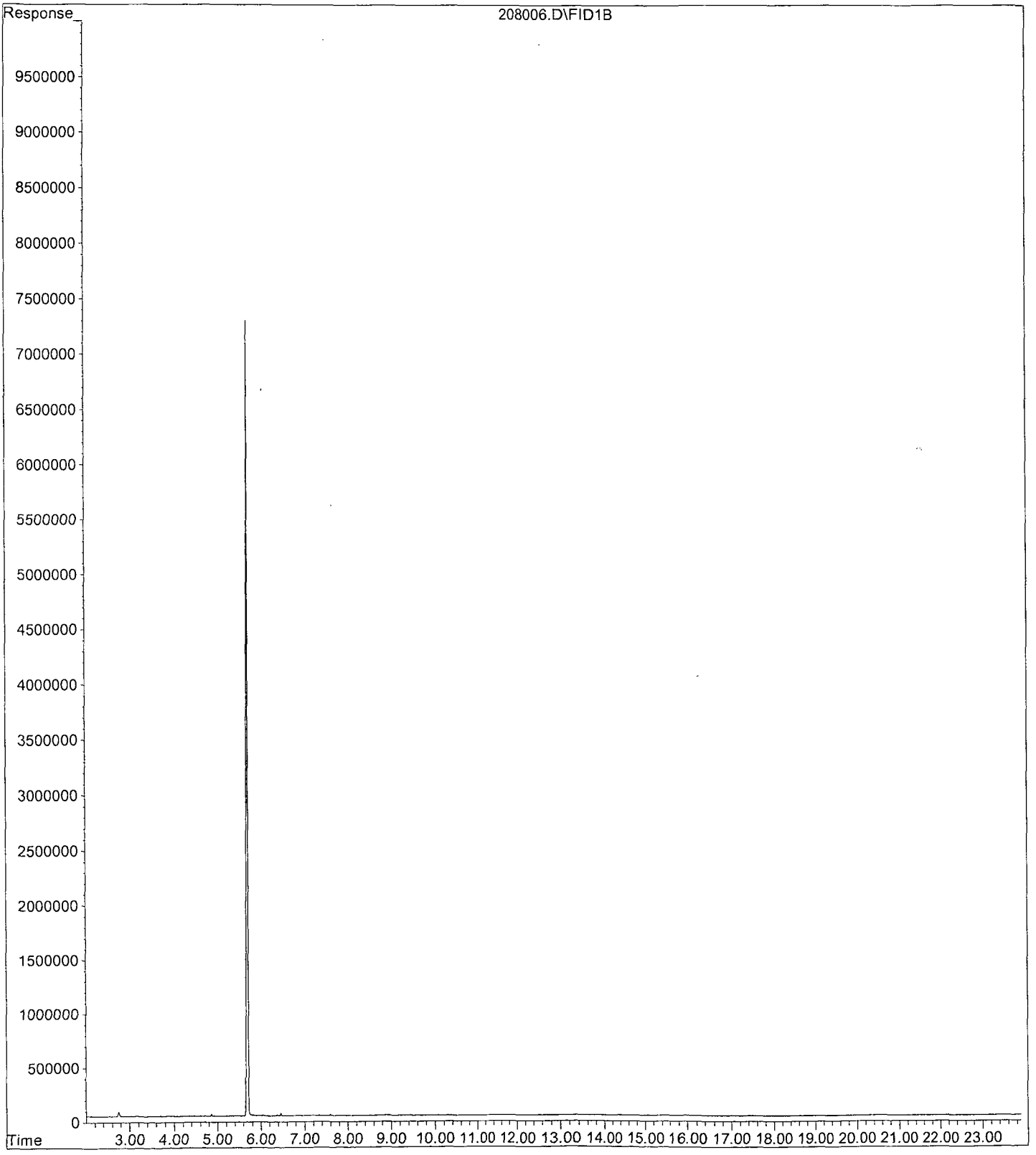
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.70	139389745	69.491 ppb
Surrogate Spike 24.000		Recovery =	289.55%

Target Compounds

Target Compounds

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

File : G:\APOLLO\DATA\210208\208006.D
Operator :
Acquired : 2-8-21 15:06:47 using AcqMethod TPHSN.M
Instrument : Apollo
Sample Name: Decanoic Acid- 6 2/8/21
Misc Info : water
Vial Number: 6



TPH Extractables
AERH0212

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 02/12/21
Instrument: Apollo

Initials: BT/MA

		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
			212003.D	212004.D	212005.D	212006.D	212007.D	212008.D	212009.D								
1	HATML	Diesel (C8-C18)	3611717	1670456	1628805	1488794	1391796	1368819	1415237				1796518	45	HATM	0.999	
2	HBTML	Motor Oil (C10-C25)	8731123	4962789	2277726	2181704	2070598	2037444	2105666				3481007	73	HBTM	1.000	
3	SA	Ortho-Terphenyl(S)	3145926	3069095	2833447	2575016	2191068	2114932	2130330				2579973	17	SA		
4	SA	Octacosane(S)	2440151	2338303	2212047	2070311	1737716	1708692	1725406				2033232	15	SA		
5																	
6																	
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8																	
9																	
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4.305862

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212003.D Vial: 3
Acq On : 2-12-21 11:28:37 Operator:
Sample : Diesel Motor Oil- 1 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

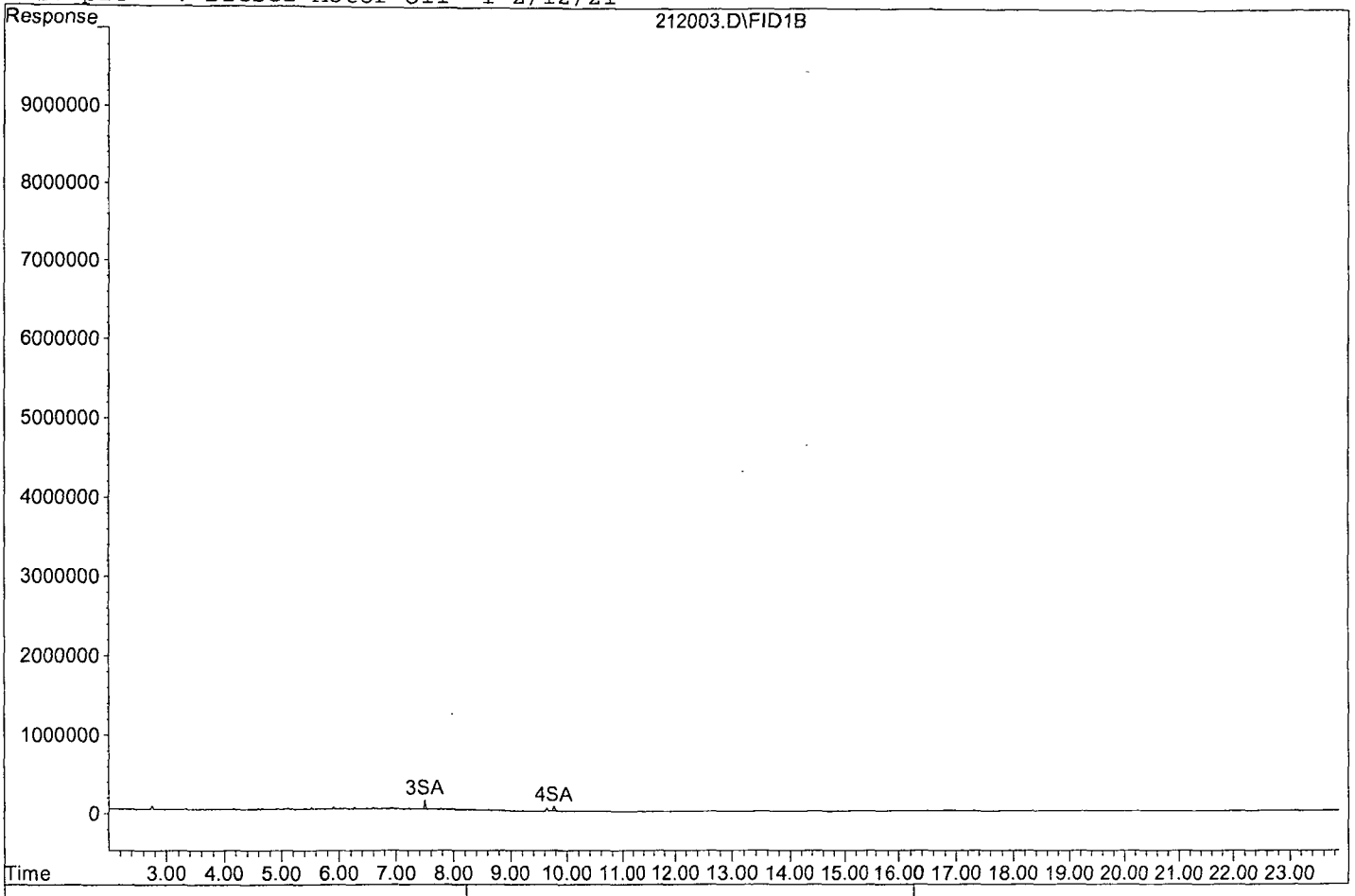
Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

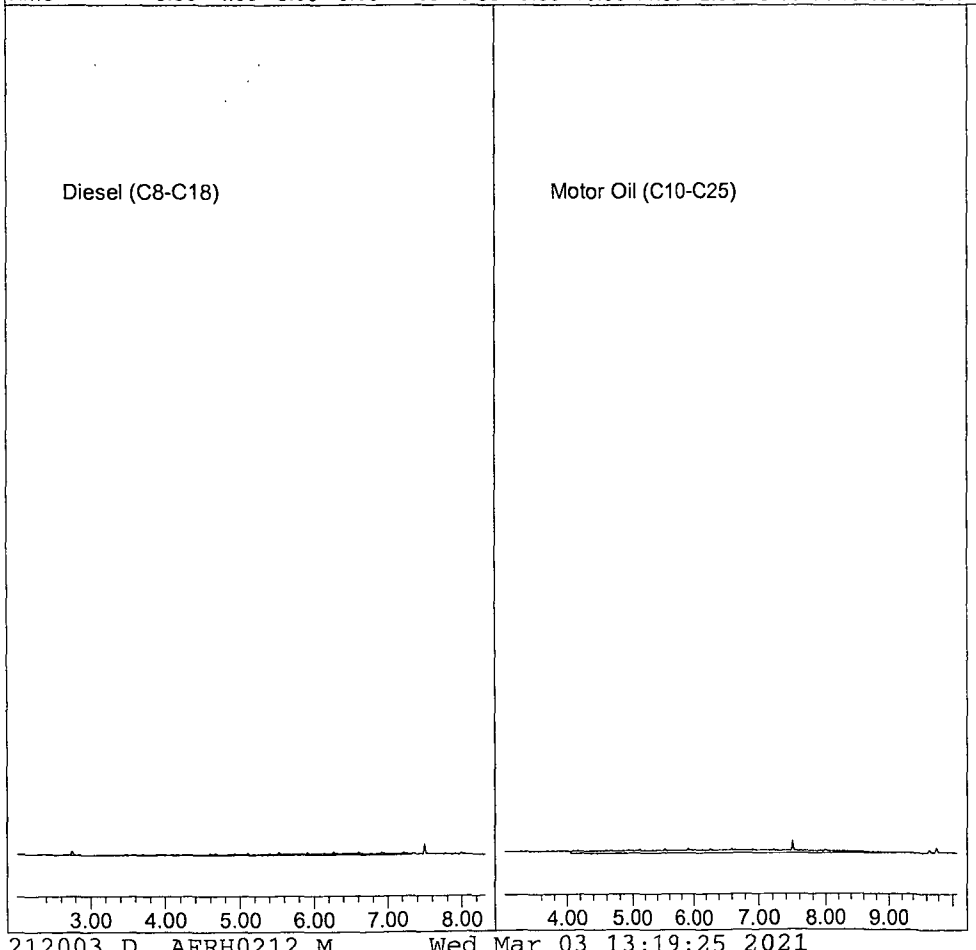
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	1572963	0.305 ppb
Surrogate Spike 30.000	Recovery	=	1.02%
4) SA Octacosane(S)	9.77	1220076	0.300 ppb
Surrogate Spike 30.000	Recovery	=	1.00%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	36117172	6.738 ppb
2) HBTM Motor Oil (C10-C25)	6.56	87311234	11.979 ppb

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

Data File: G:\APOLLO\DATA\210212\212003.D
Sample : Diesel Motor Oil- 1 2/12/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212004.D Vial: 4
Acq On : 2-12-21 11:56:36 Operator:
Sample : Diesel Motor Oil- 2 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

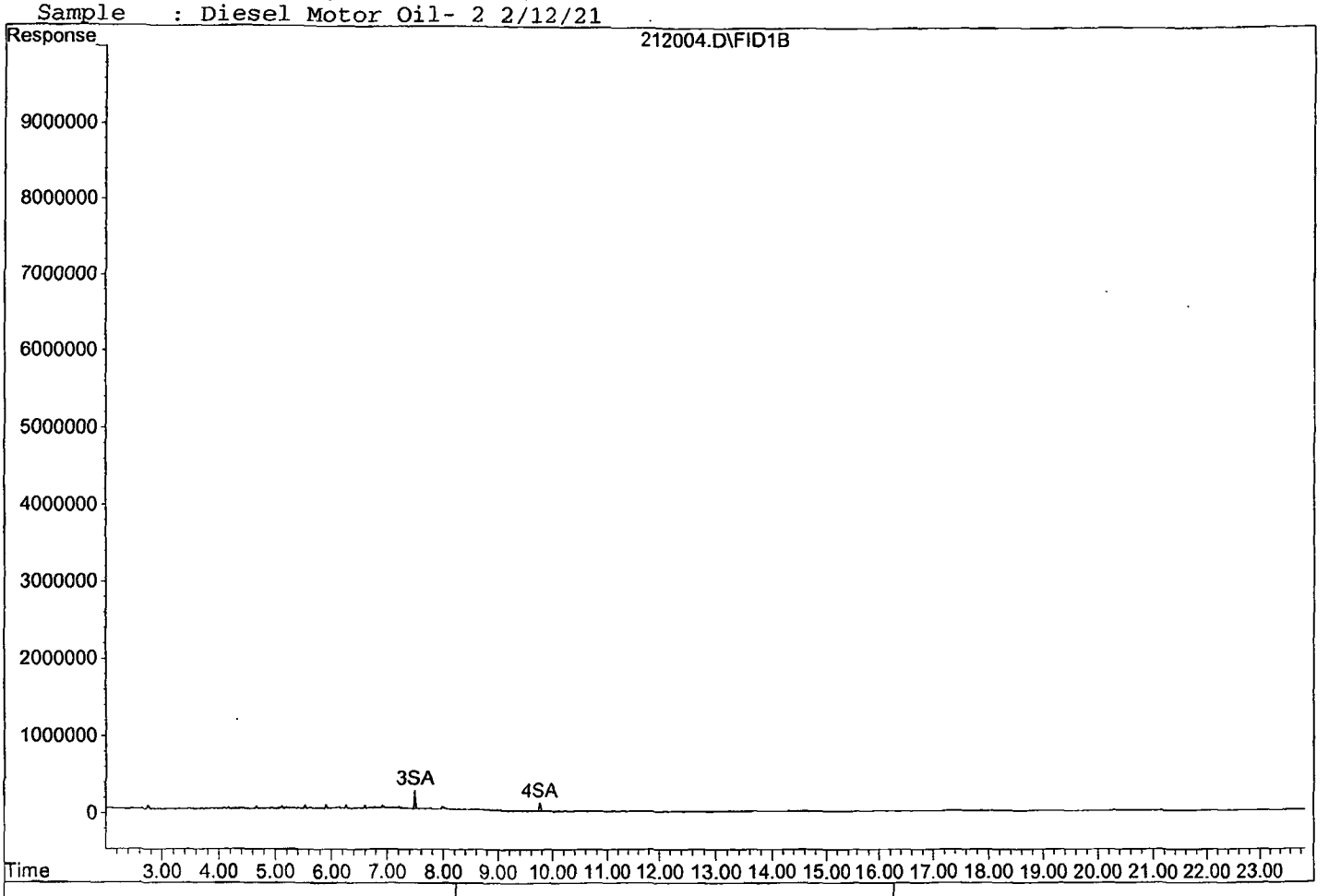
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

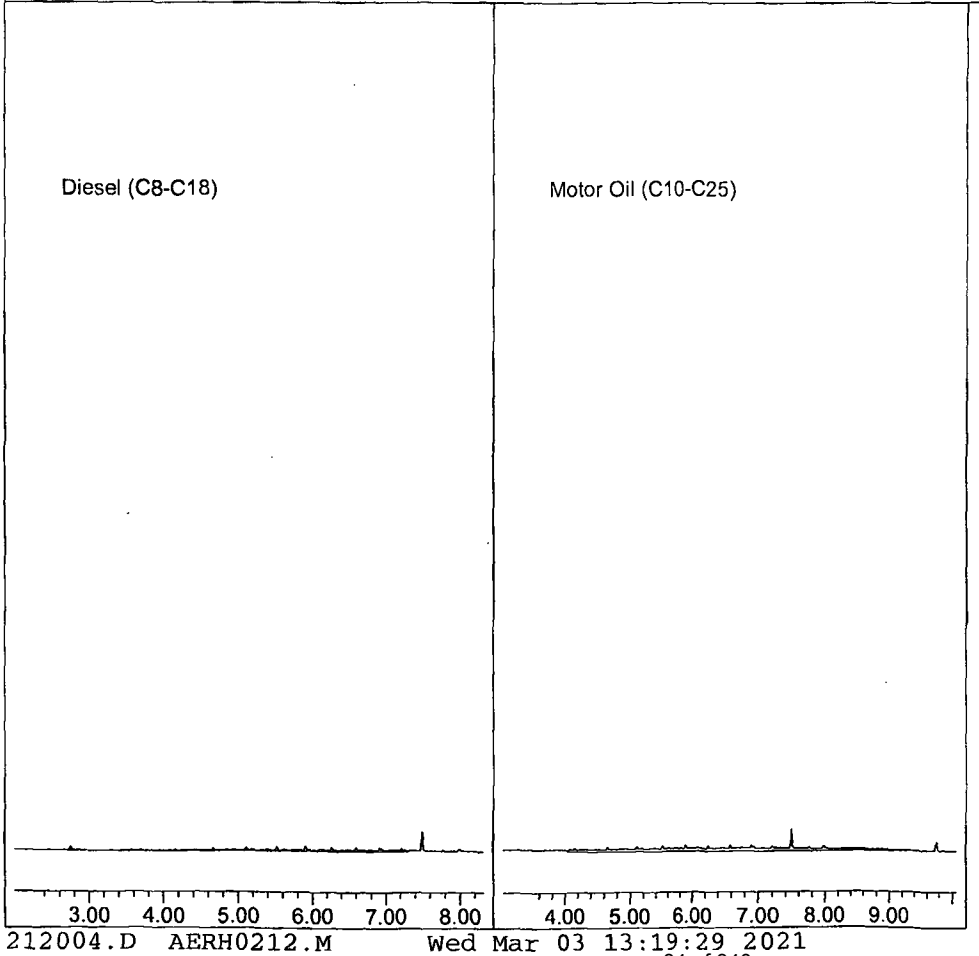
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	3069095	0.595 ppb
Surrogate Spike 30.000		Recovery =	1.98%
4) SA Octacosane(S)	9.77	2338303	0.575 ppb
Surrogate Spike 30.000		Recovery =	1.92%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	33409118	5.765 ppb
2) HBTM Motor Oil (C10-C25)	6.56	99255780	14.867 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210212\212004.D
Sample : Diesel Motor Oil- 2 2/12/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212005.D Vial: 5
Acq On : 2-12-21 12:24:41 Operator:
Sample : Diesel Motor Oil- 3 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

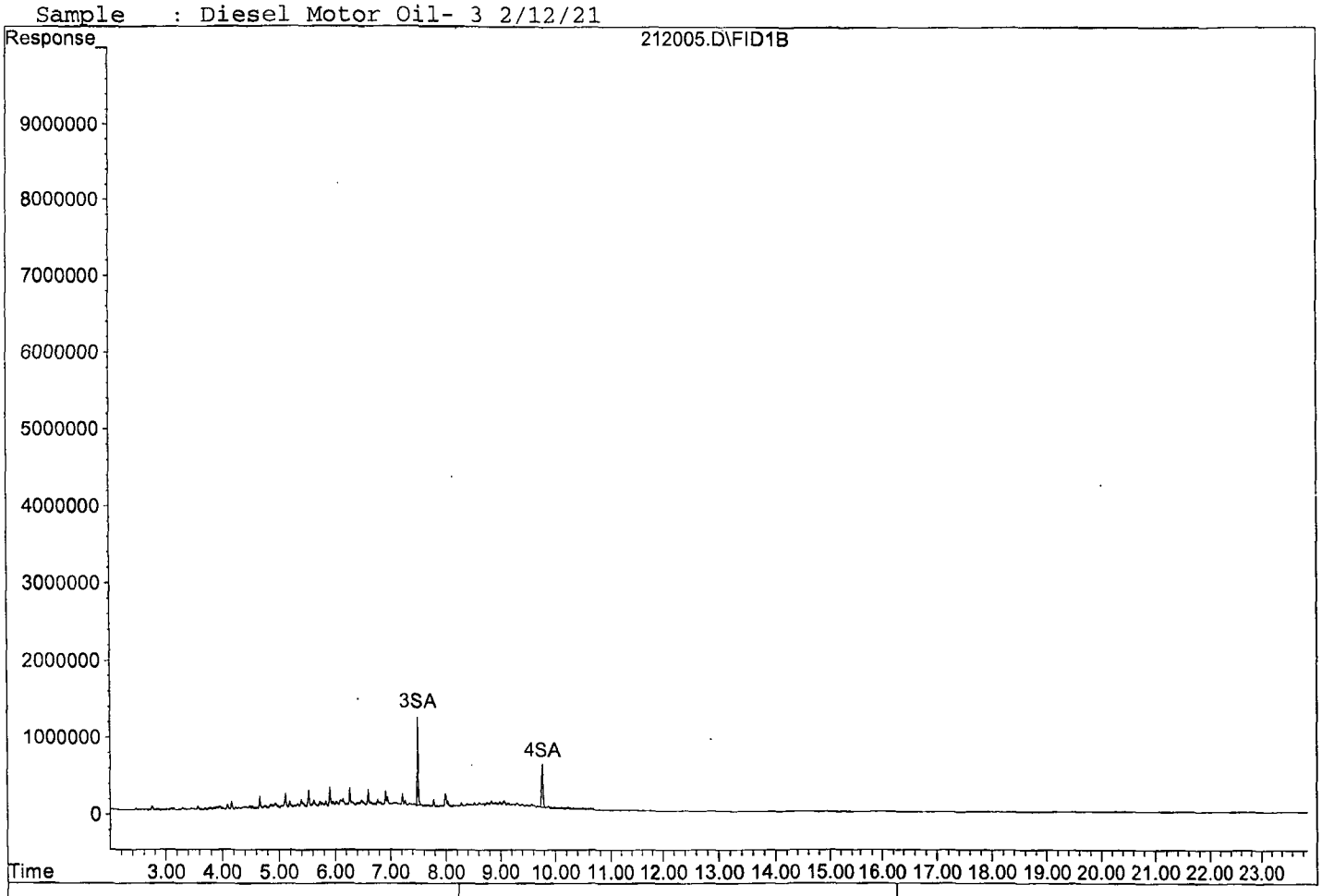
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

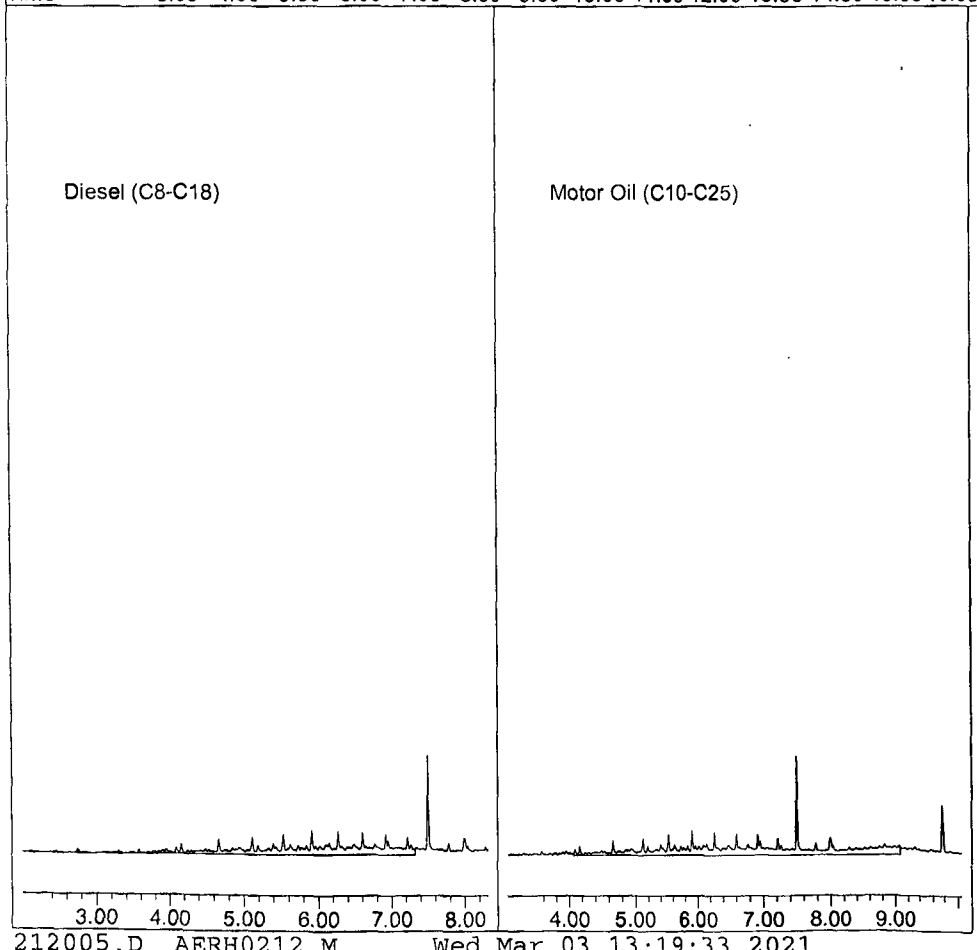
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	14167233	2.746 ppb
Surrogate Spike 30.000		Recovery =	9.15%
4) SA Octacosane(S)	9.77	11060237	2.720 ppb
Surrogate Spike 30.000		Recovery =	9.07%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	162880463	52.266 ppb
2) HBTM Motor Oil (C10-C25)	6.56	227772612	45.936 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210212\212005.D
Sample : Diesel Motor Oil- 3 2/12/21





212005.D AERH0212.M Wed Mar 03 13:19:33 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212006.D Vial: 6
Acq On : 2-12-21 12:52:42 Operator:
Sample : Diesel Motor Oil- 4 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

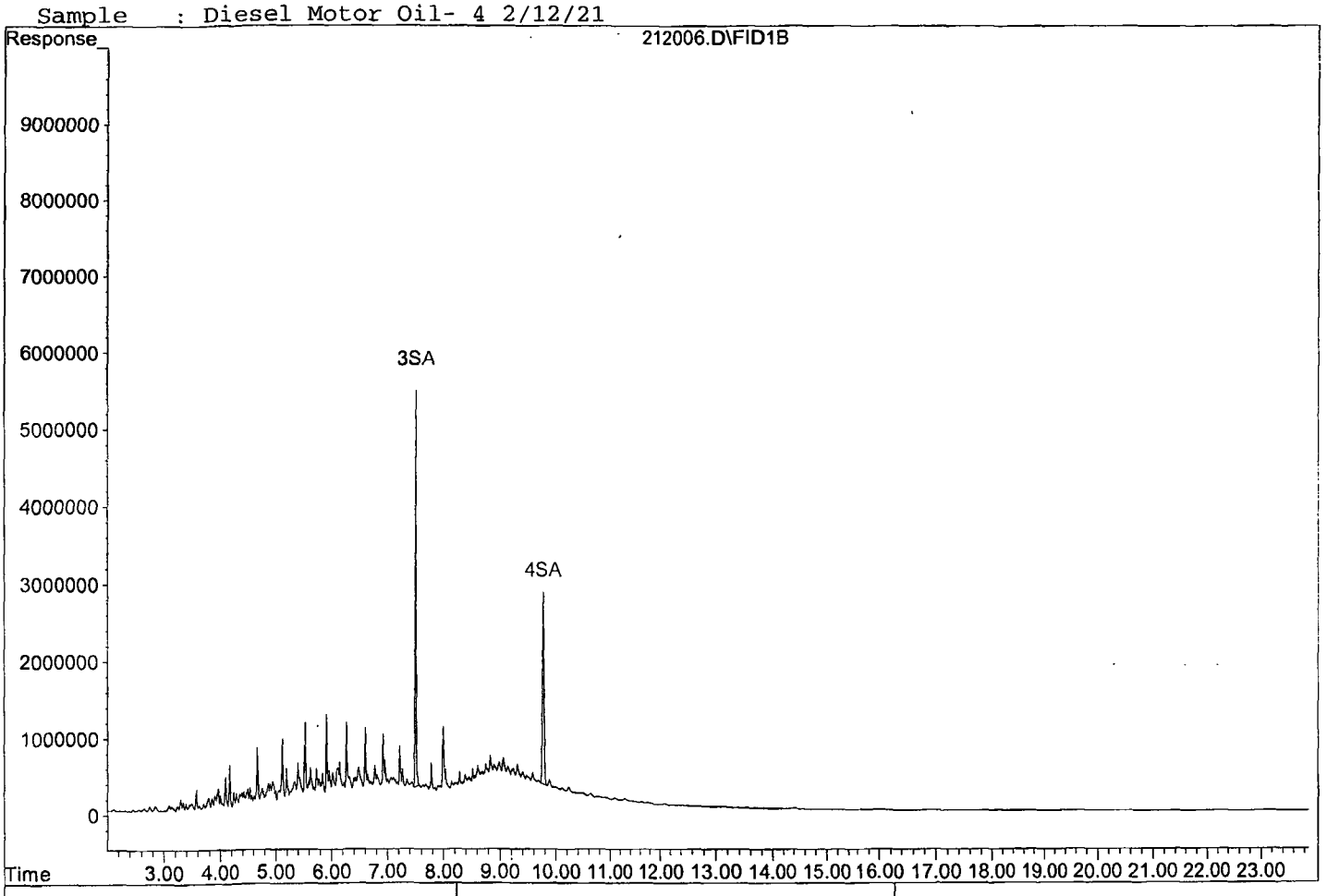
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

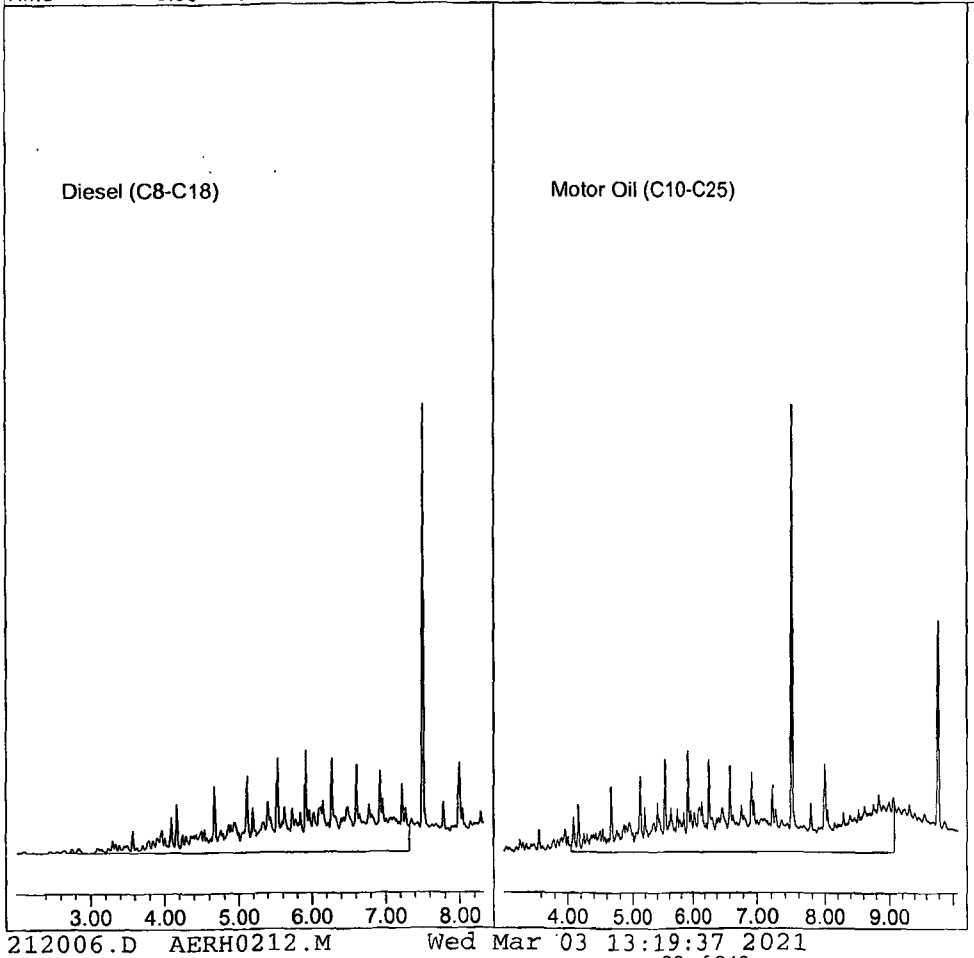
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	64375391	12.476 ppb
Surrogate Spike 30.000		Recovery =	41.59%
4) SA Octacosane(S)	9.77	51757775	12.728 ppb
Surrogate Spike 30.000		Recovery =	42.43%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	744396780	261.123 ppb
2) HBTM Motor Oil (C10-C25)	6.56	1090852234	254.588 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210212\212006.D
Sample : Diesel Motor Oil- 4 2/12/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212007.D Vial: 7
Acq On : 2-12-21 13:20:42 Operator:
Sample : Diesel Motor Oil- 5 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

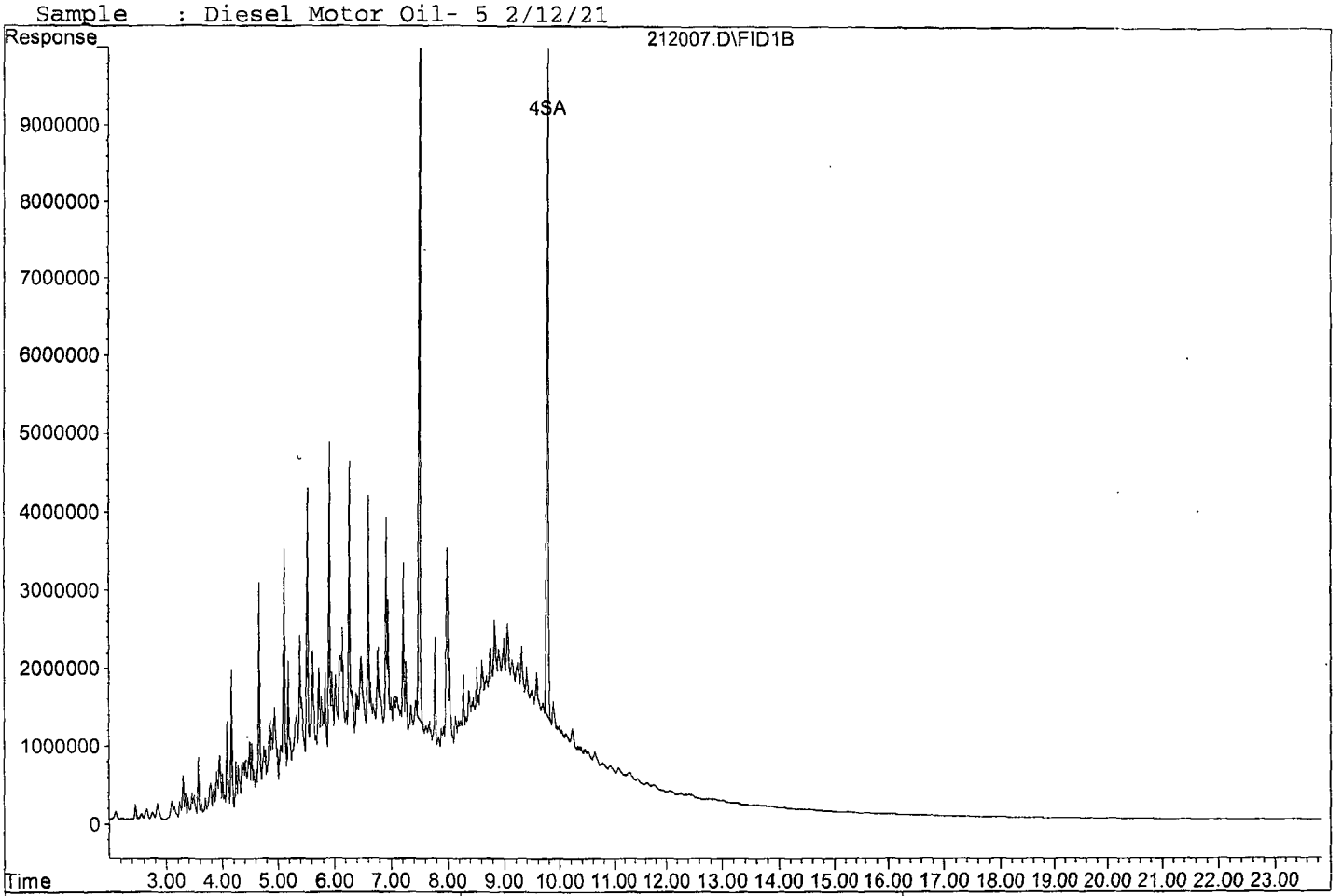
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

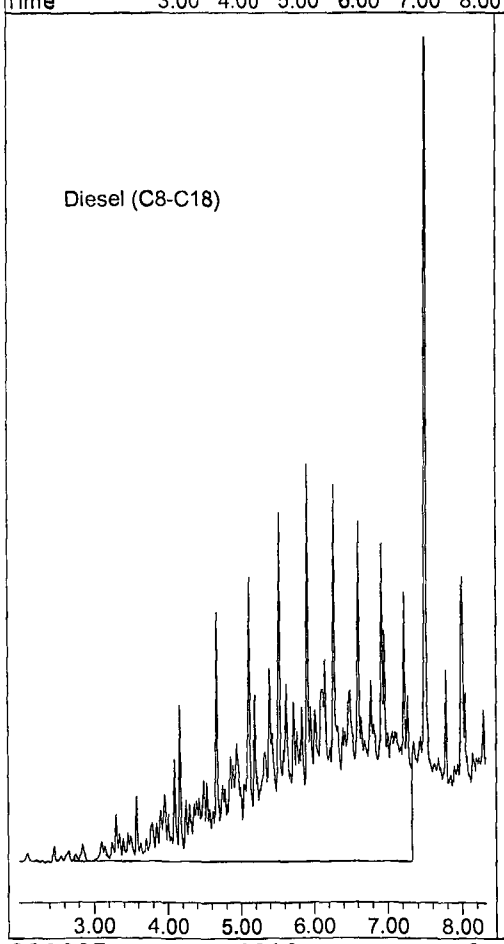
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	219106790	42.463 ppb
Surrogate Spike 30.000		Recovery =	141.54%
4) SA Octacosane(S)	9.78	173771646	42.733 ppb
Surrogate Spike 30.000		Recovery =	142.44%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	2783591257	993.519 ppb
2) HBTM Motor Oil (C10-C25)	6.56	4141195034	992.016 ppb

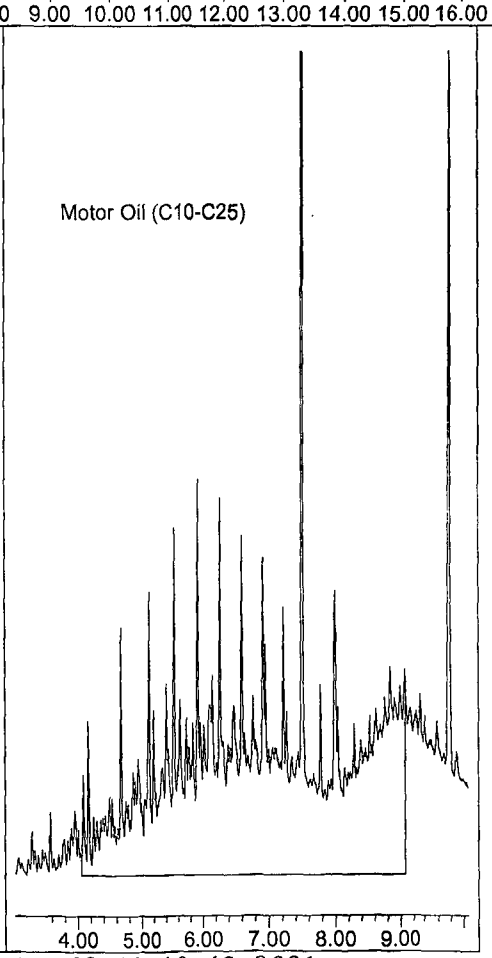
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\210212\212007.D
Sample : Diesel Motor Oil- 5 2/12/21







Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212008.D Vial: 8
Acq On : 2-12-21 13:48:44 Operator:
Sample : Diesel Motor Oil- 6 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

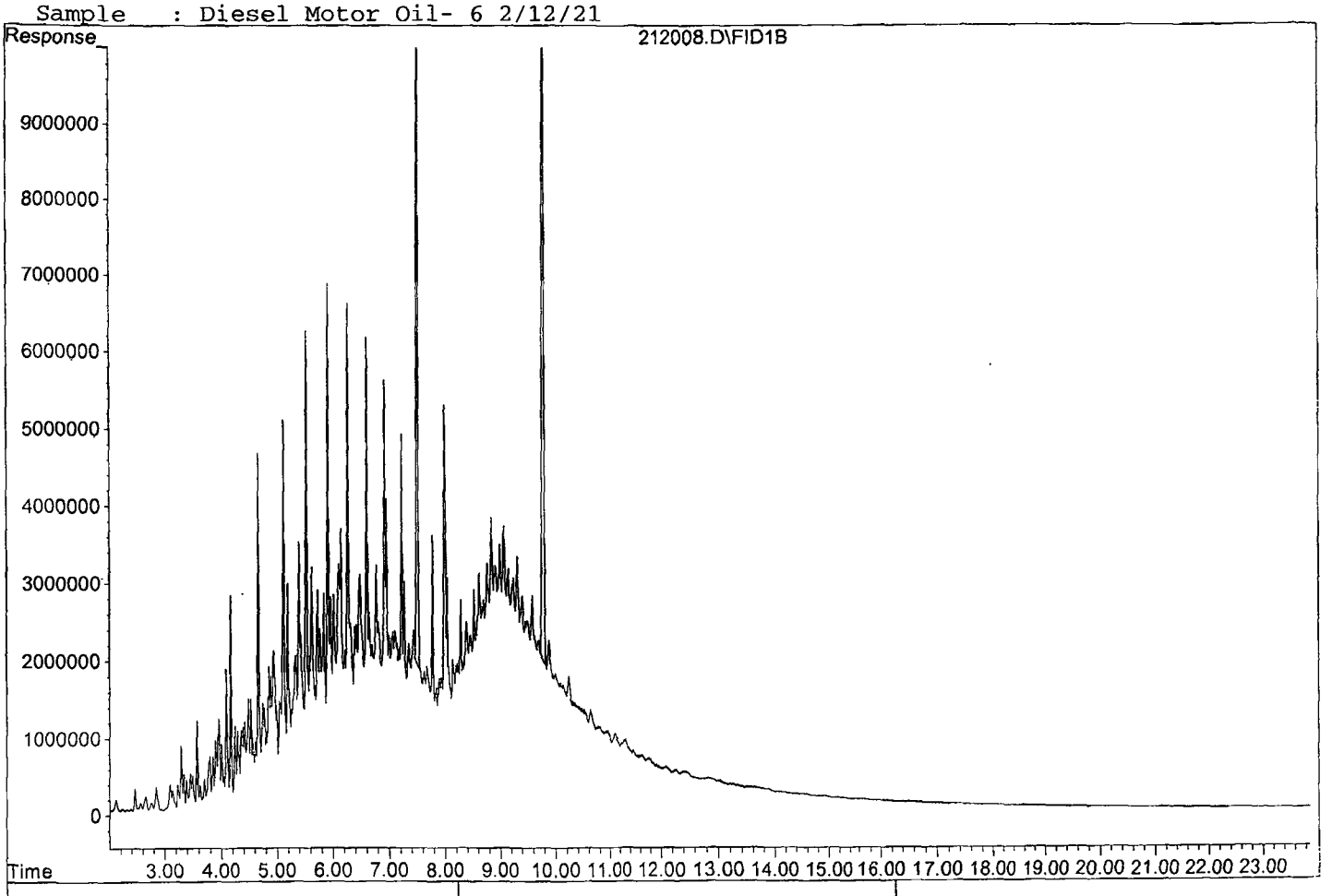
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

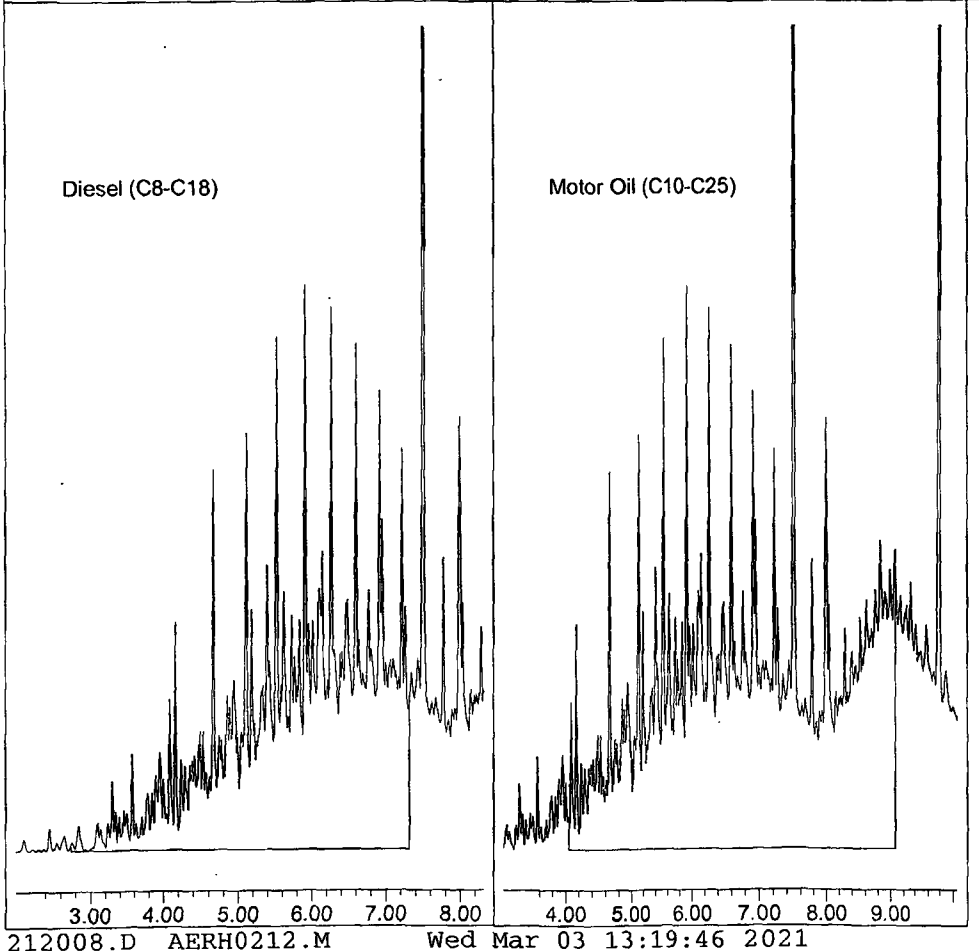
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	317239811	61.481 ppb
Surrogate Spike 30.000		Recovery =	204.94%
4) SA Octacosane(S)	9.78	256303866	63.029 ppb
Surrogate Spike 30.000		Recovery =	210.10%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	4106456306	1468.639 ppb
2) HBTM Motor Oil (C10-C25)	6.56	6112332228	1468.543 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210212\212008.D
Sample : Diesel Motor Oil- 6 2/12/21





212008.D AERH0212.M Wed Mar 03 13:19:46 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210212\212009.D Vial: 9
Acq On : 2-12-21 14:16:46 Operator:
Sample : Diesel Motor Oil- 7 2/12/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 9:48 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

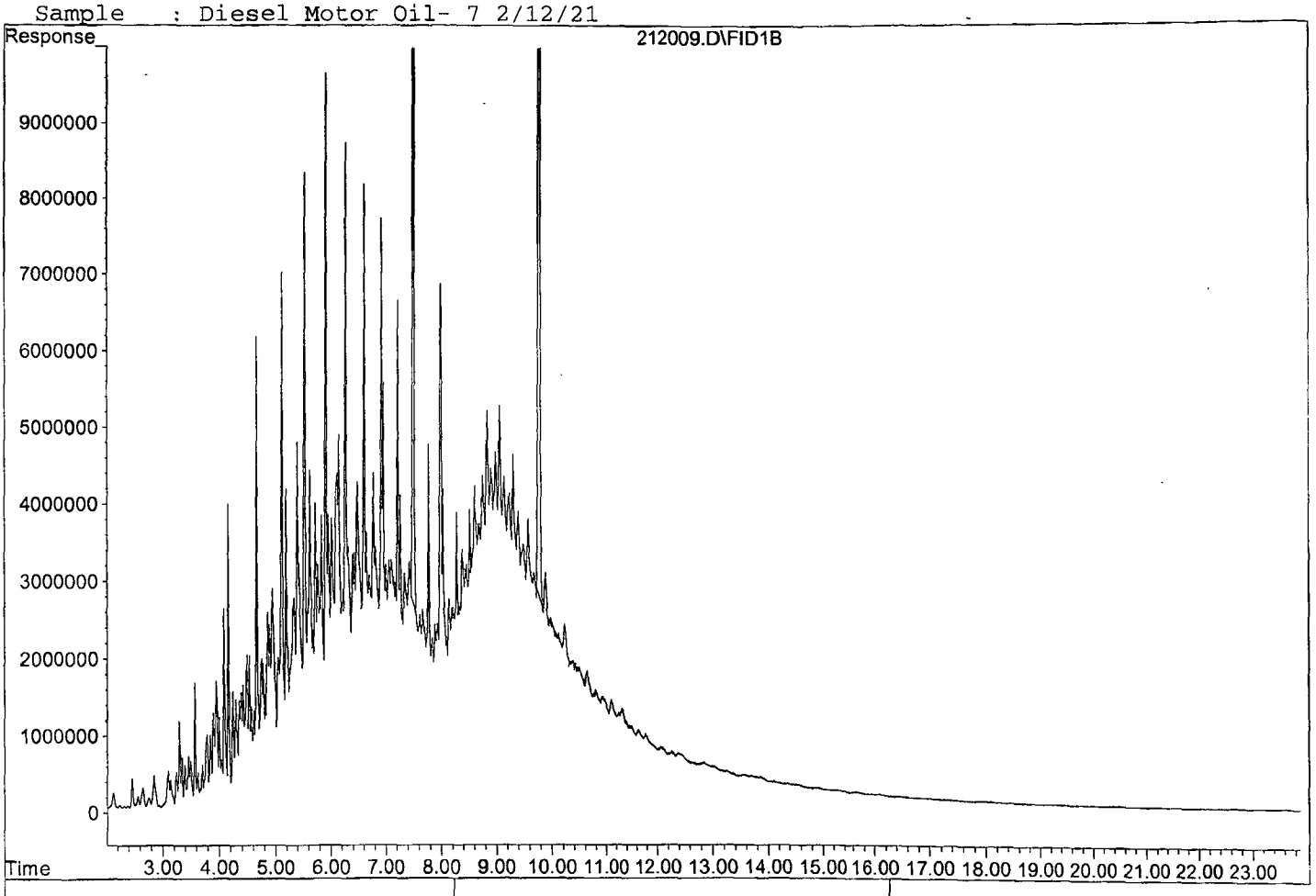
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

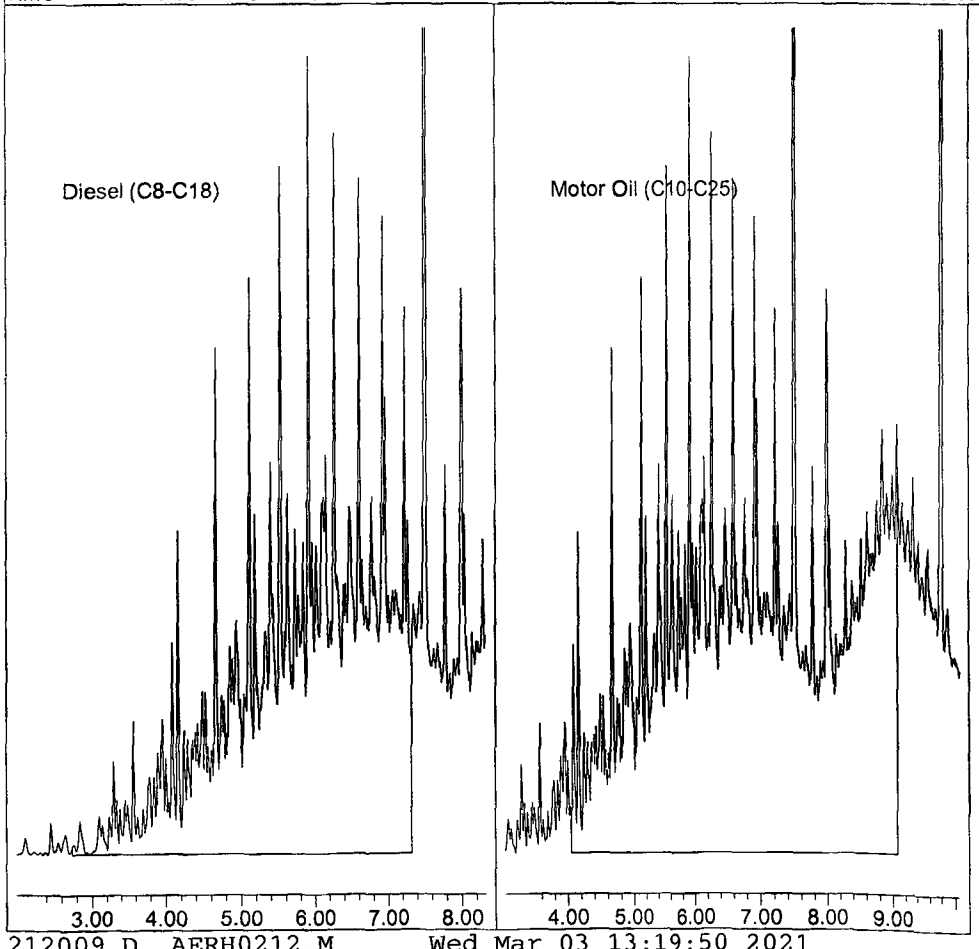
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.50	426066069	82.572 ppb
Surrogate Spike 30.000		Recovery =	275.24%
4) SA Octacosane(S)	9.79	345081190	84.860 ppb
Surrogate Spike 30.000		Recovery =	282.87%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	5660949110	2026.950 ppb
2) HBTM Motor Oil (C10-C25)	6.56	8422662649	2027.071 ppb

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

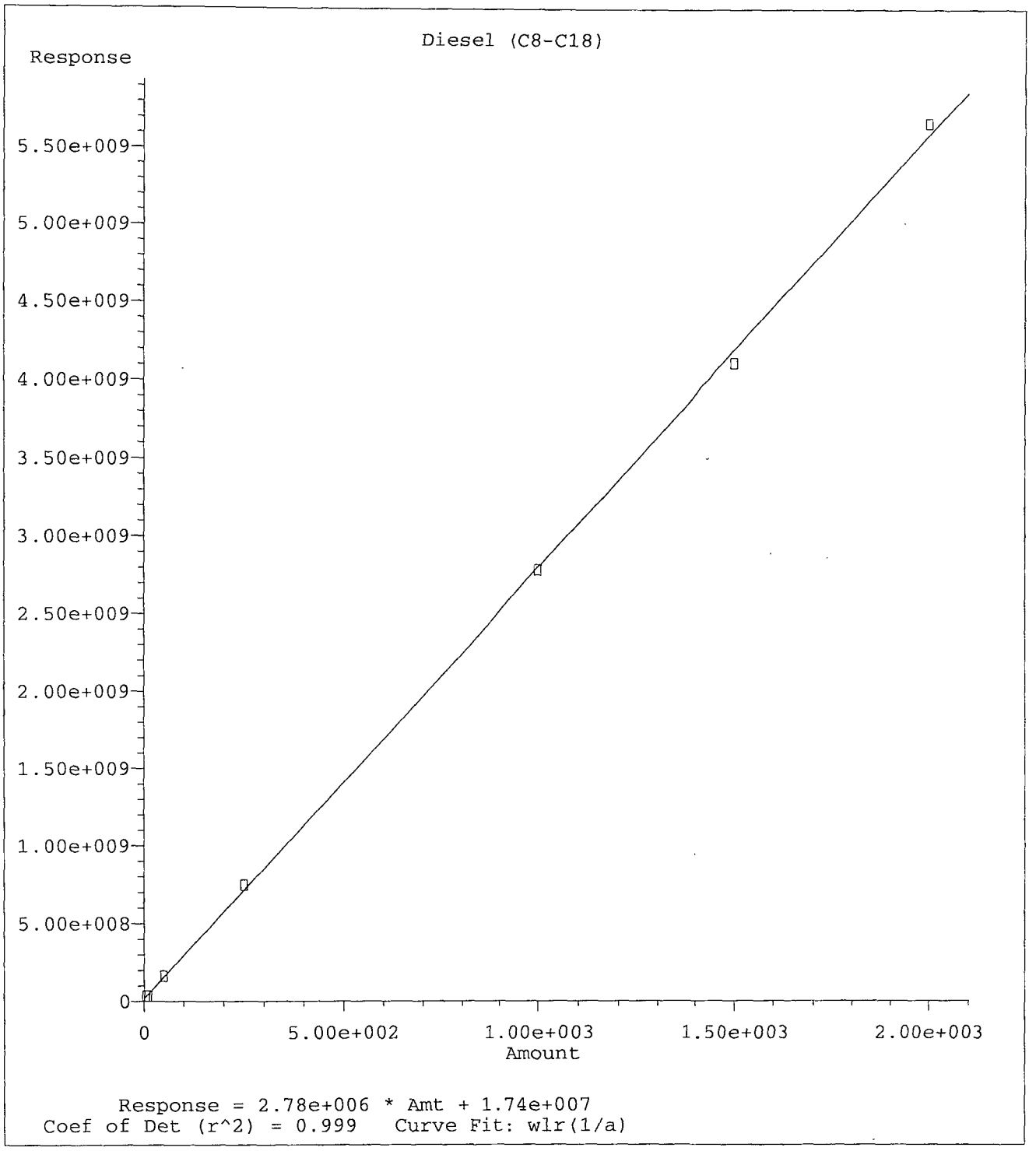
Quantitation Report

Data File: G:\APOLLO\DATA\210212\212009.D
Sample : Diesel Motor Oil- 7 2/12/21

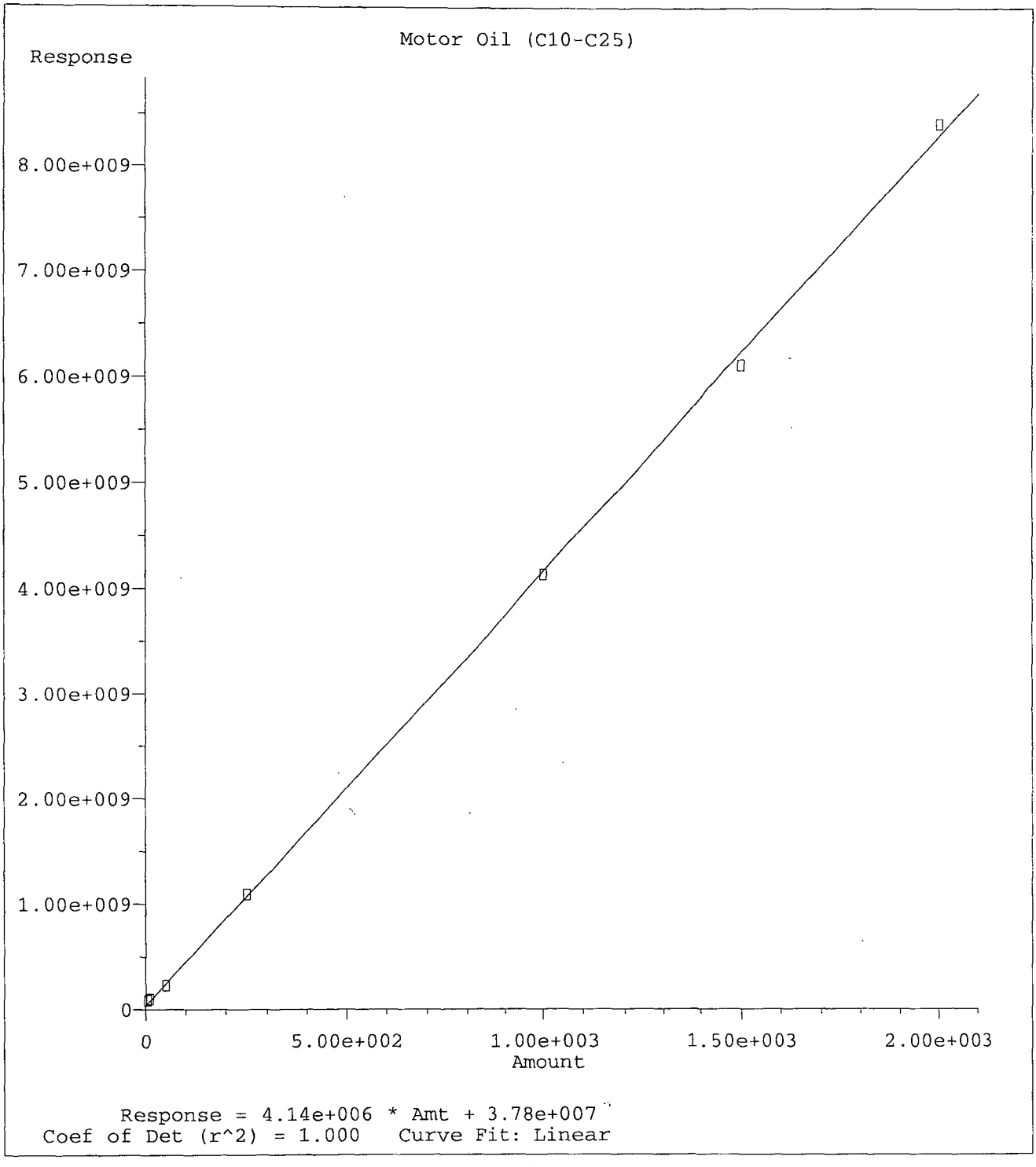




212009.D AERH0212.M Wed Mar 03 13:19:50 2021



Method Name: G:\APOLLO\DATA\210302\AERH0212.M
Calibration Table Last Updated: Wed Mar 03 09:46:35 2021



Method Name: G:\APOLLO\DATA\210302\AERH0212.M
Calibration Table Last Updated: Wed Mar 03 09:46:35 2021

TPH Extractables
AERH0212

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 02/12/21
Instrument: Apollo
Initial Cal. Date: 02/12/21
Data File: 212010.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1796520	1437470	20	HATML	0.76
2	HBTM	Motor Oil (C10-C25)	3481010	2141260	38	HBTML	0.12
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40							
		Average			29.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210212\212010.D Vial: 10
Acq On : 2-12-21 14:44:53 Operator:
Sample : Diesel Motor Oil- SS 7/21/20 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

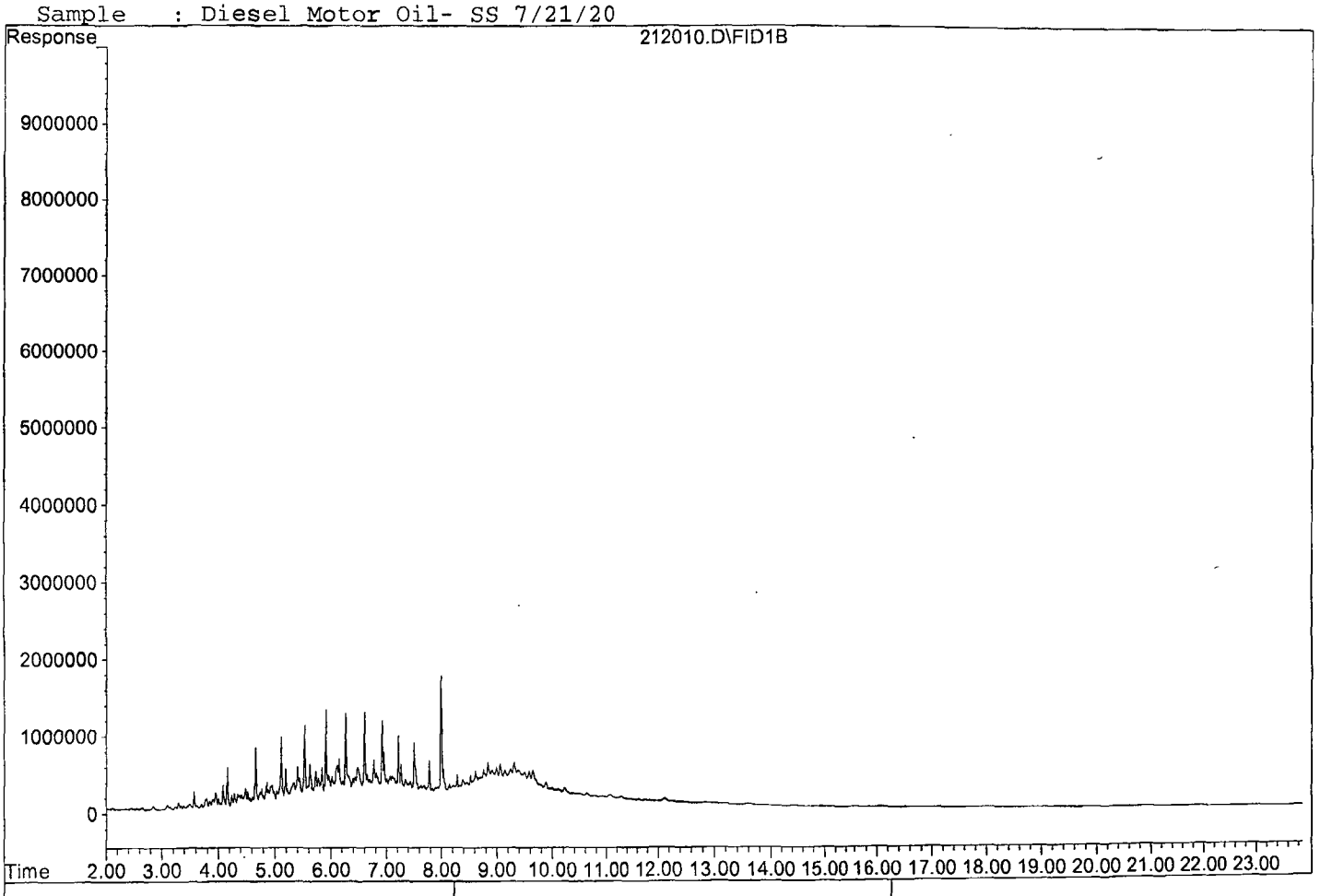
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

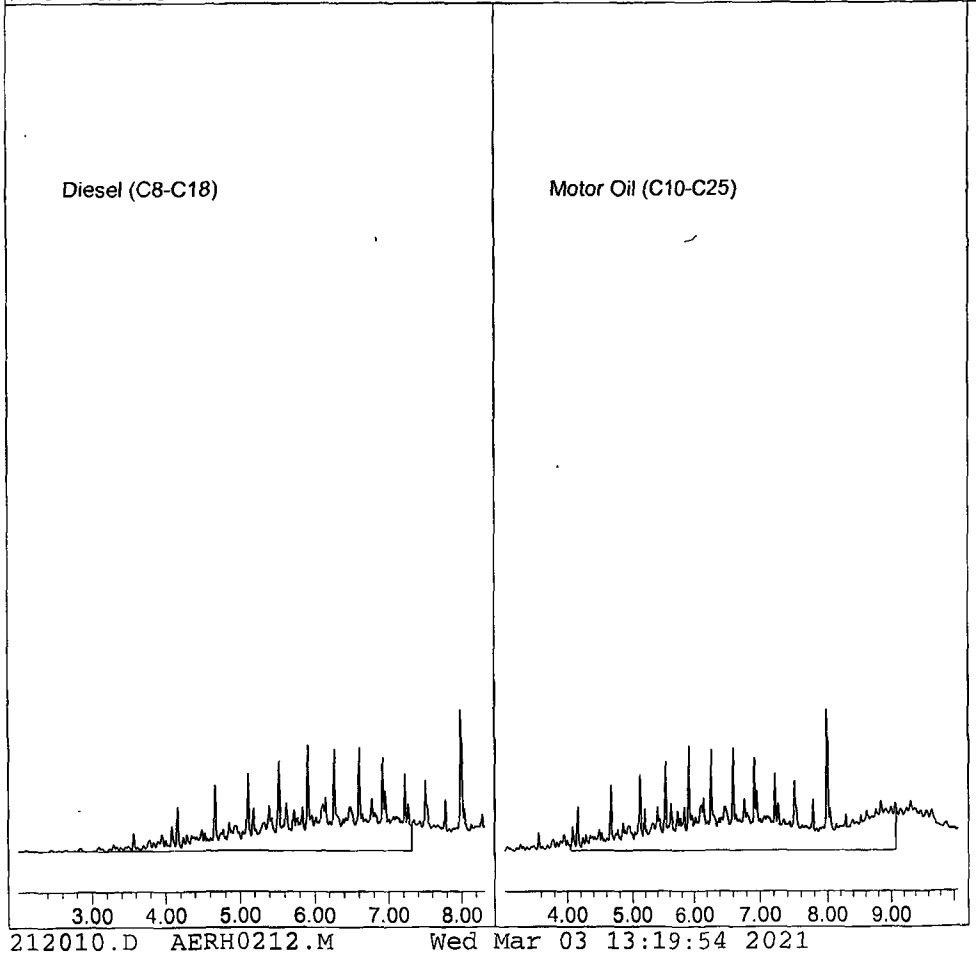
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	718735229	251.907 ppb
2) HBTM Motor Oil (C10-C25)	6.56	1070631568	249.699 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210212\212010.D
Sample : Diesel Motor Oil- SS 7/21/20





212010.D AERH0212.M Wed Mar 03 13:19:54 2021

TPH Extractables
AERH0307

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 03/07/21
Instrument: Apollo

Initials: BJ

		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
			307003.D	307004.D	307005.D	307006.D	307007.D	307008.D	307009.D								
1	HATM	Diesel (C8-C18)	1745003	1752622	1645913	2033391	1789674	1450274	1707938				1732116	10	HATM		
2	HBTM	Motor Oil (C10-C25)		2598402	2408829	2210072	2148111	2138647	2142558				2274437	8.3	HBTM		
3	SA	Ortho-Terphenyl(S)	3021454	2782970	2683584	2461893	2272552	2179224	2188239				2512845	13	SA		
4	SA	Octacosane(S)	2073076	2149874	2075180	1896414	1821509	1794677	1810257				1945855	7.7	SA		
5																	
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1.114909

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307003.D Vial: 3
Acq On : 3-7-21 16:33:15 Operator: BT
Sample : Diesel Motor Oil - 1 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

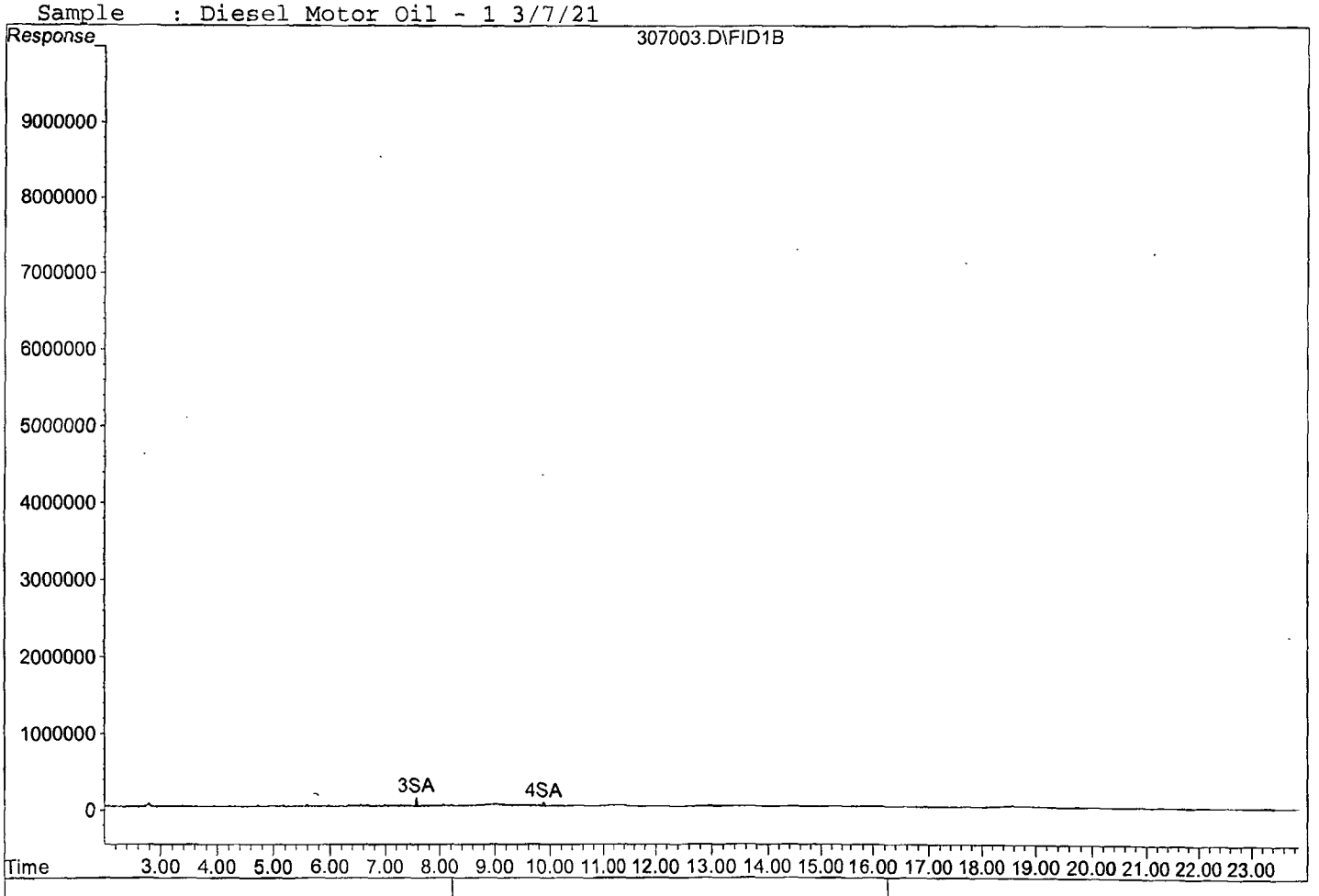
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

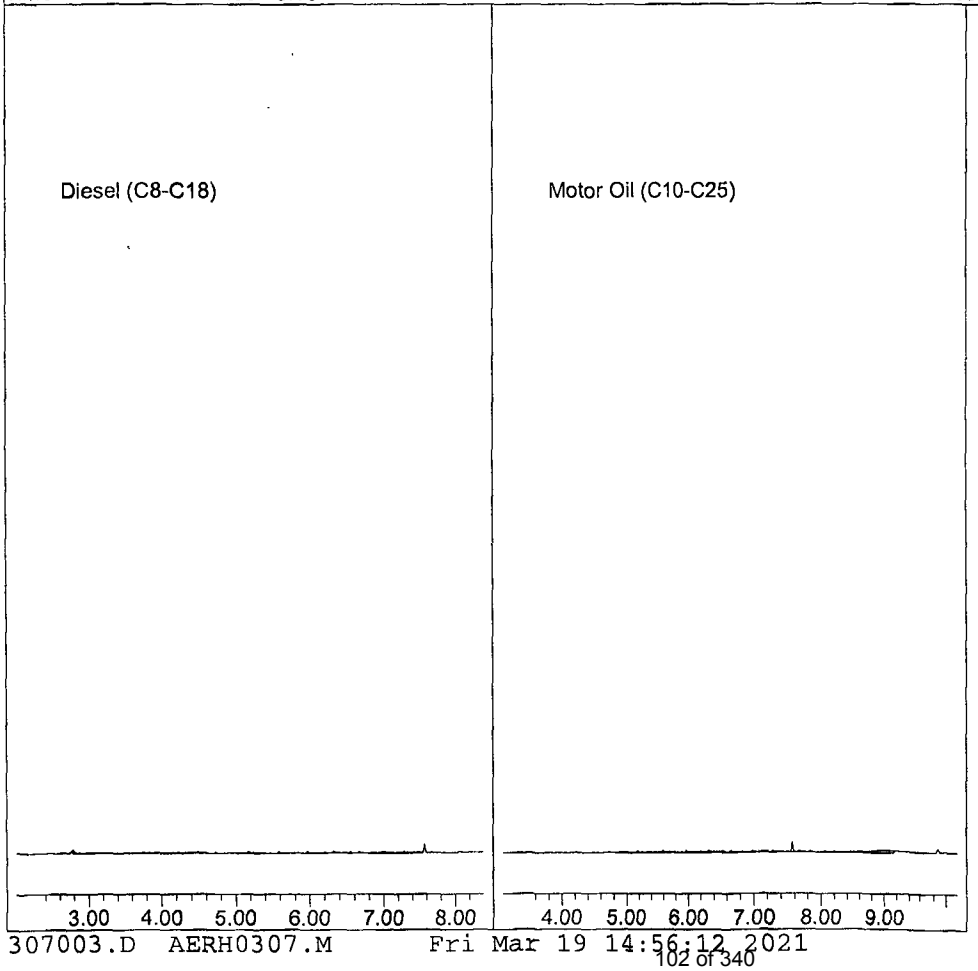
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	1510727	0.301 ppb
Surrogate Spike 30.000	Recovery	=	1.00%
4) SA Octacosane(S)	9.88	1036538	0.266 ppb
Surrogate Spike 30.000	Recovery	=	0.89%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	17450030	5.037 ppb
2) HBTM Motor Oil (C10-C25)	6.64	29982515	6.591 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307003.D
Sample : Diesel Motor Oil - 1 3/7/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307004.D Vial: 4
Acq On : 3-7-21 17:01:36 Operator: BT
Sample : Diesel Motor Oil - 2 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

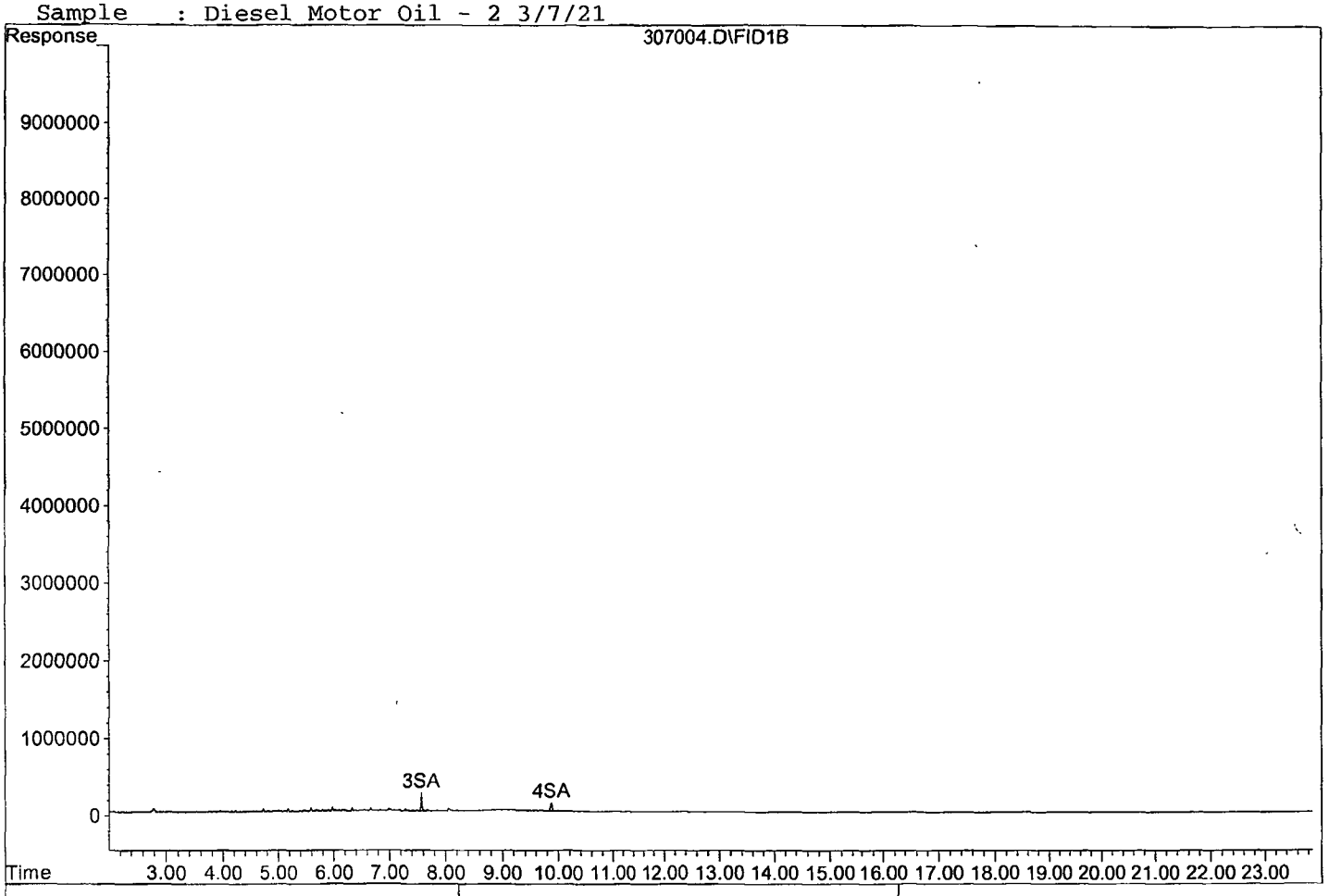
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

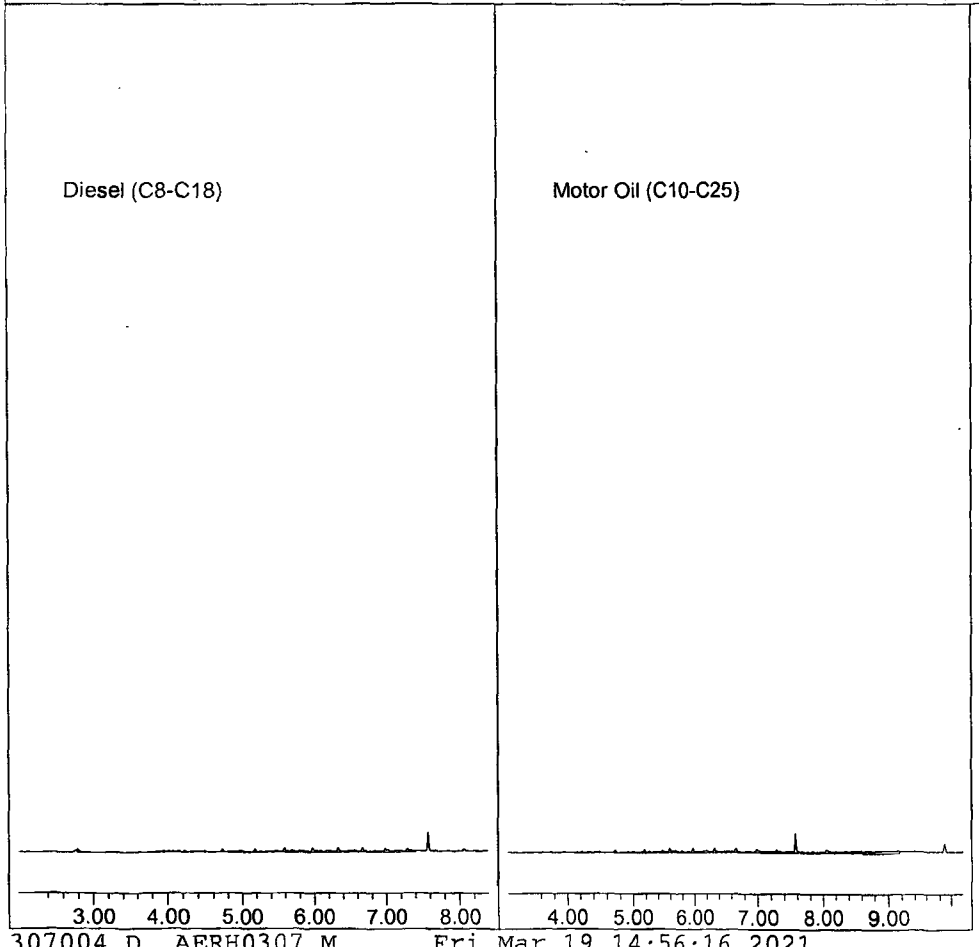
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	2782970	0.554 ppb
Surrogate Spike 30.000	Recovery	=	1.85%
4) SA Octacosane(S)	9.88	2149874	0.552 ppb
Surrogate Spike 30.000	Recovery	=	1.84%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	35052431	10.118 ppb
2) HBTM Motor Oil (C10-C25)	6.64	51968042	11.424 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307004.D
Sample : Diesel Motor Oil - 2 3/7/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307005.D Vial: 5
Acq On : 3-7-21 17:29:56 Operator: BT
Sample : Diesel Motor Oil - 3 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

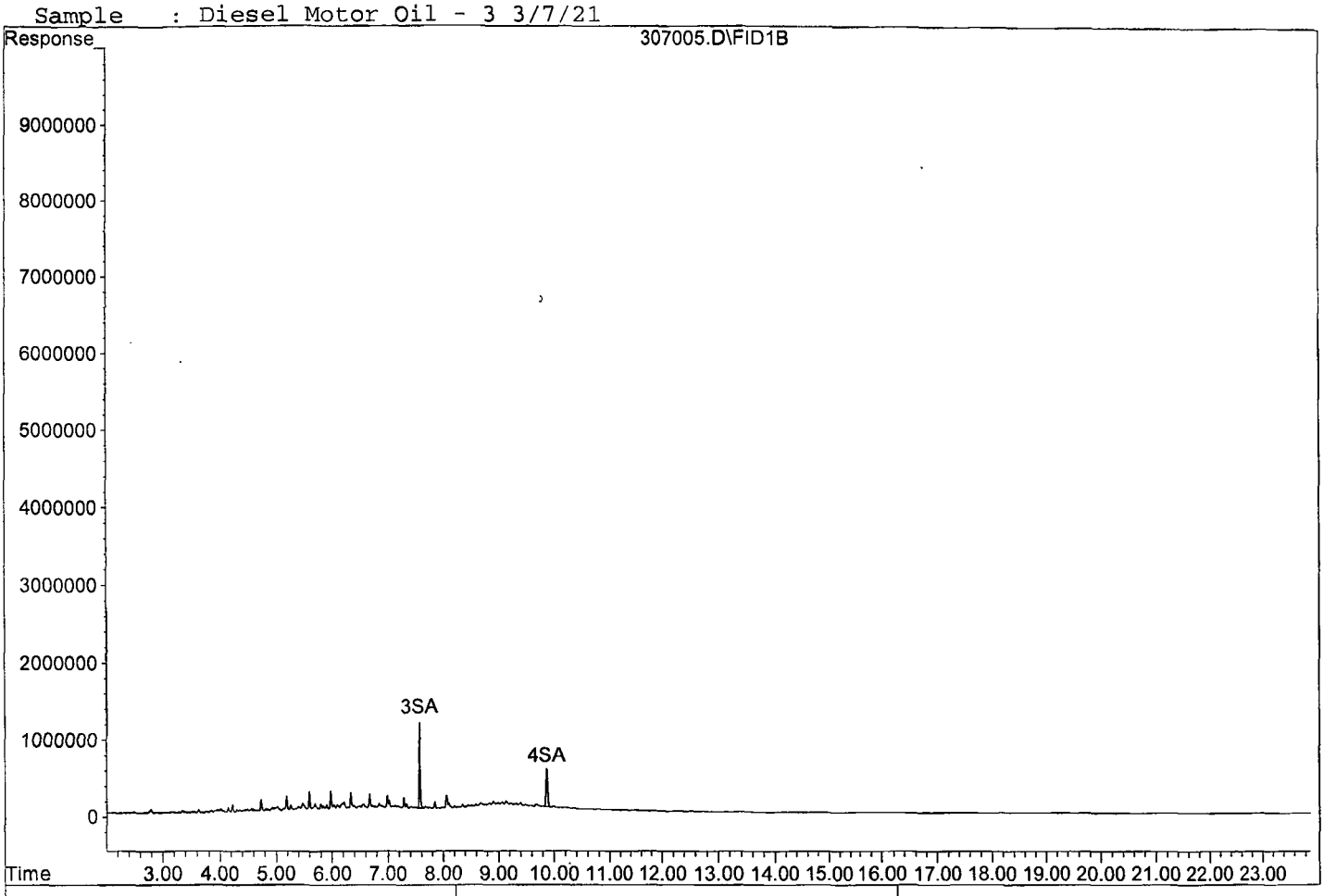
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

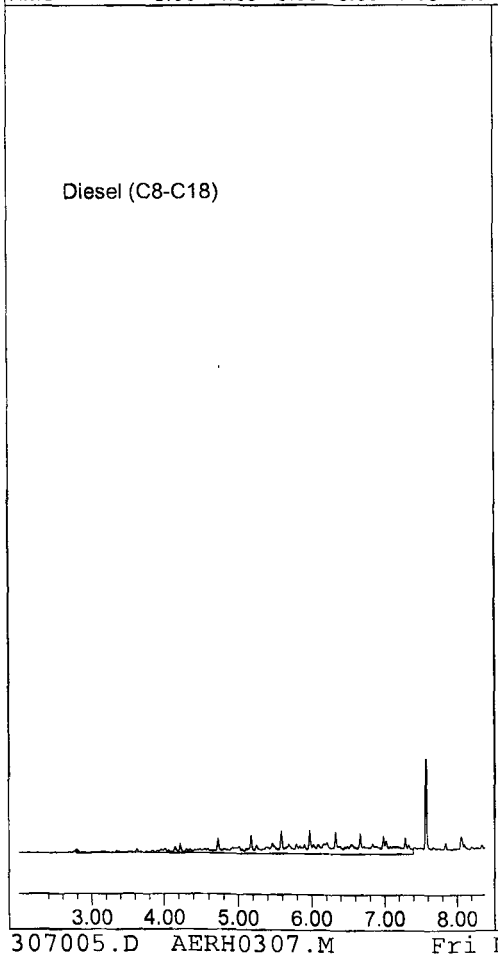
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	13417918	2.670 ppb
Surrogate Spike 30.000		Recovery =	8.90%
4) SA Octacosane(S)	9.87	10375898	2.666 ppb
Surrogate Spike 30.000		Recovery =	8.89%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	164591311	47.512 ppb
2) HBTM Motor Oil (C10-C25)	6.64	240882887	52.954 ppb

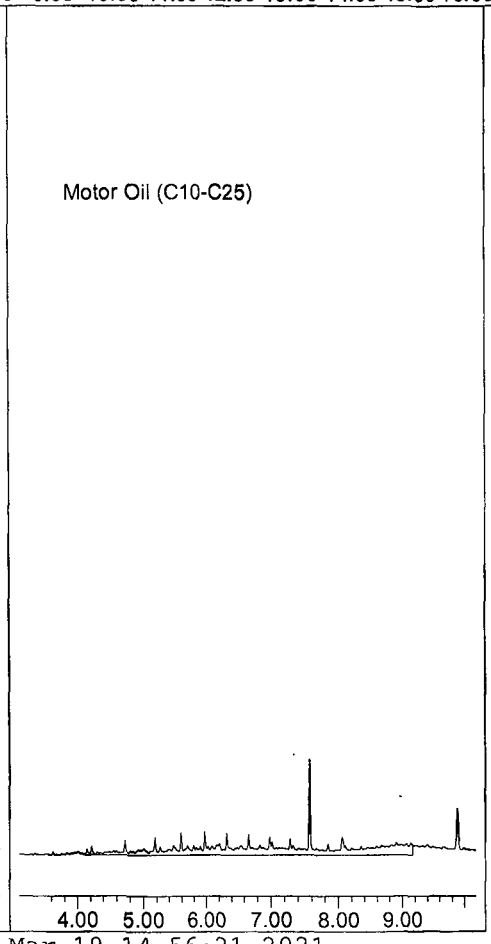
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307005.D
Sample : Diesel Motor Oil - 3 3/7/21







Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307006.D Vial: 6
Acq On : 3-7-21 17:58:14 Operator: BT
Sample : Diesel Motor Oil - 4 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

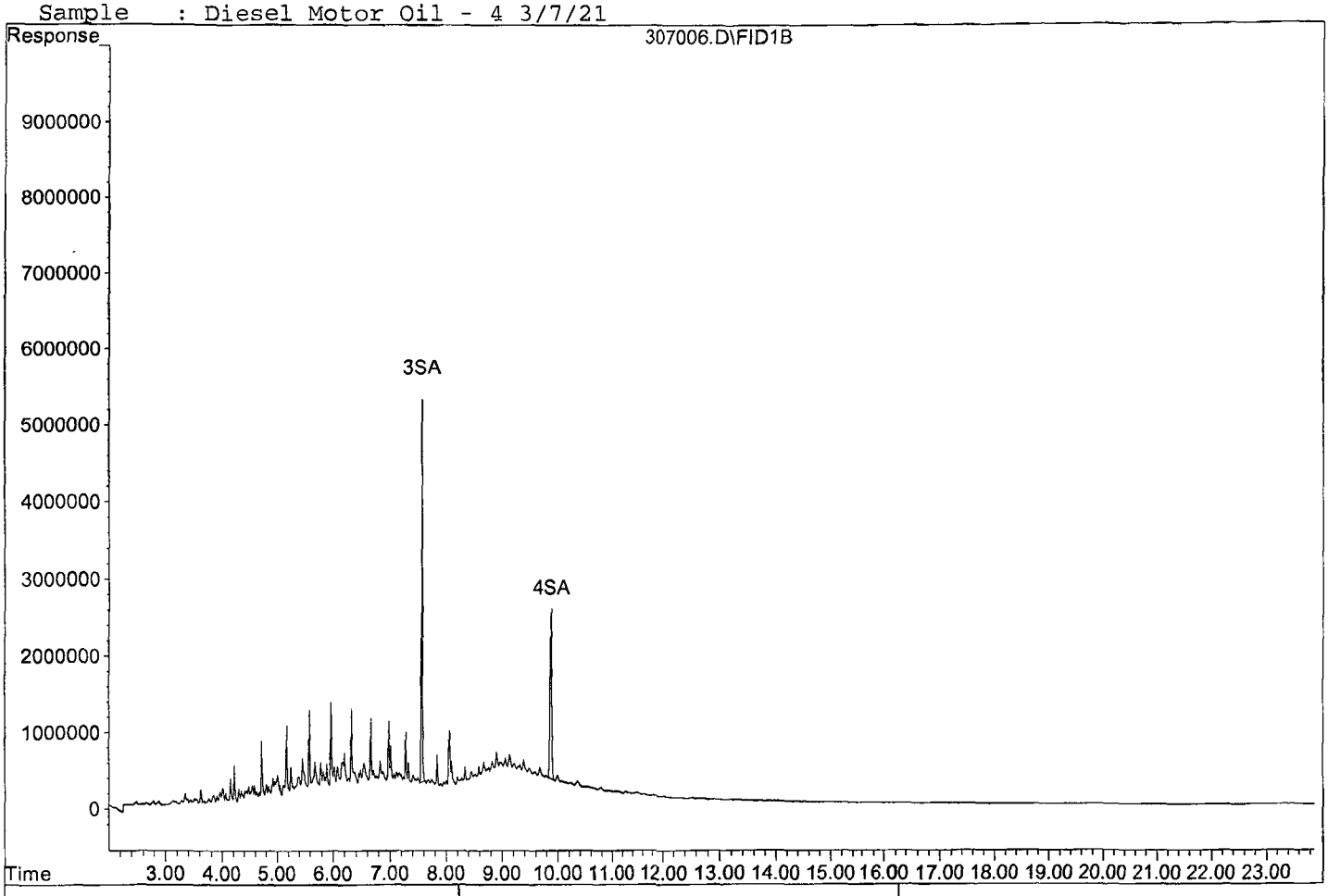
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

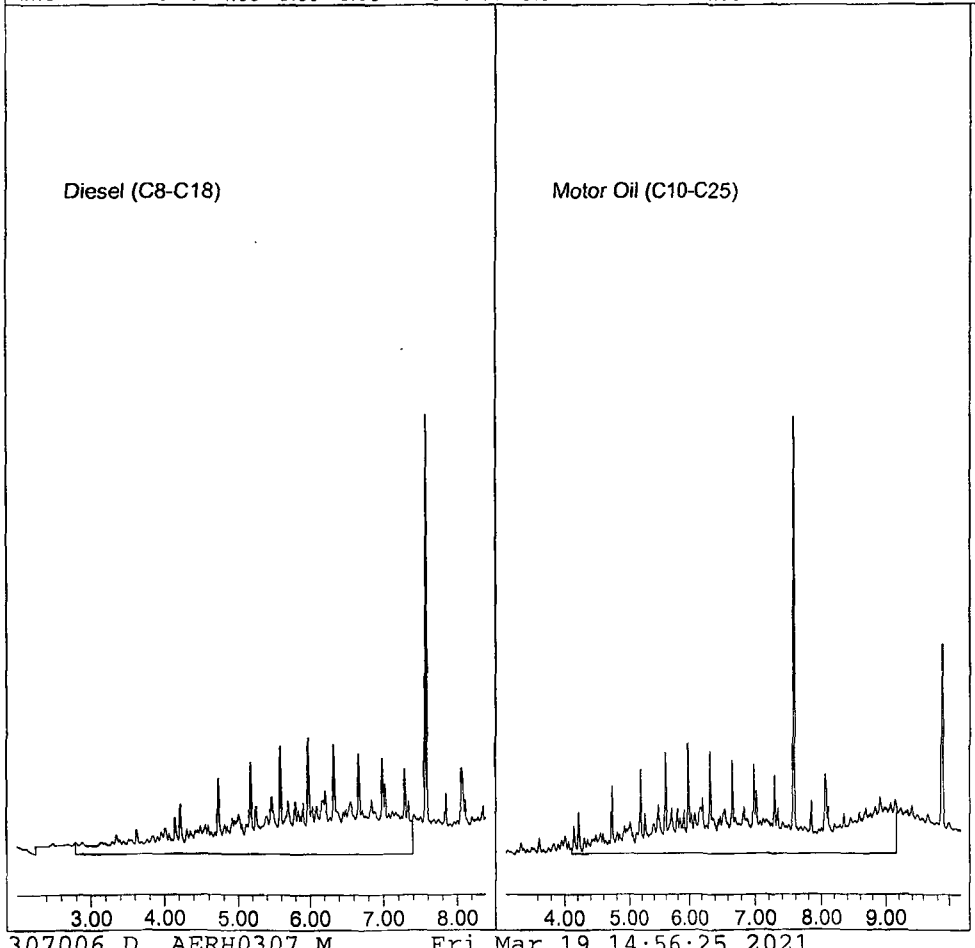
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	61547330	12.247 ppb
Surrogate Spike 30.000		Recovery =	40.82%
4) SA Octacosane(S)	9.88	47410362	12.182 ppb
Surrogate Spike 30.000		Recovery =	40.61%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	1016695370	293.484 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1105036208	242.925 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307006.D
Sample : Diesel Motor Oil - 4 3/7/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307007.D Vial: 7
Acq On : 3-7-21 18:26:32 Operator: BT
Sample : Diesel Motor Oil - 5 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

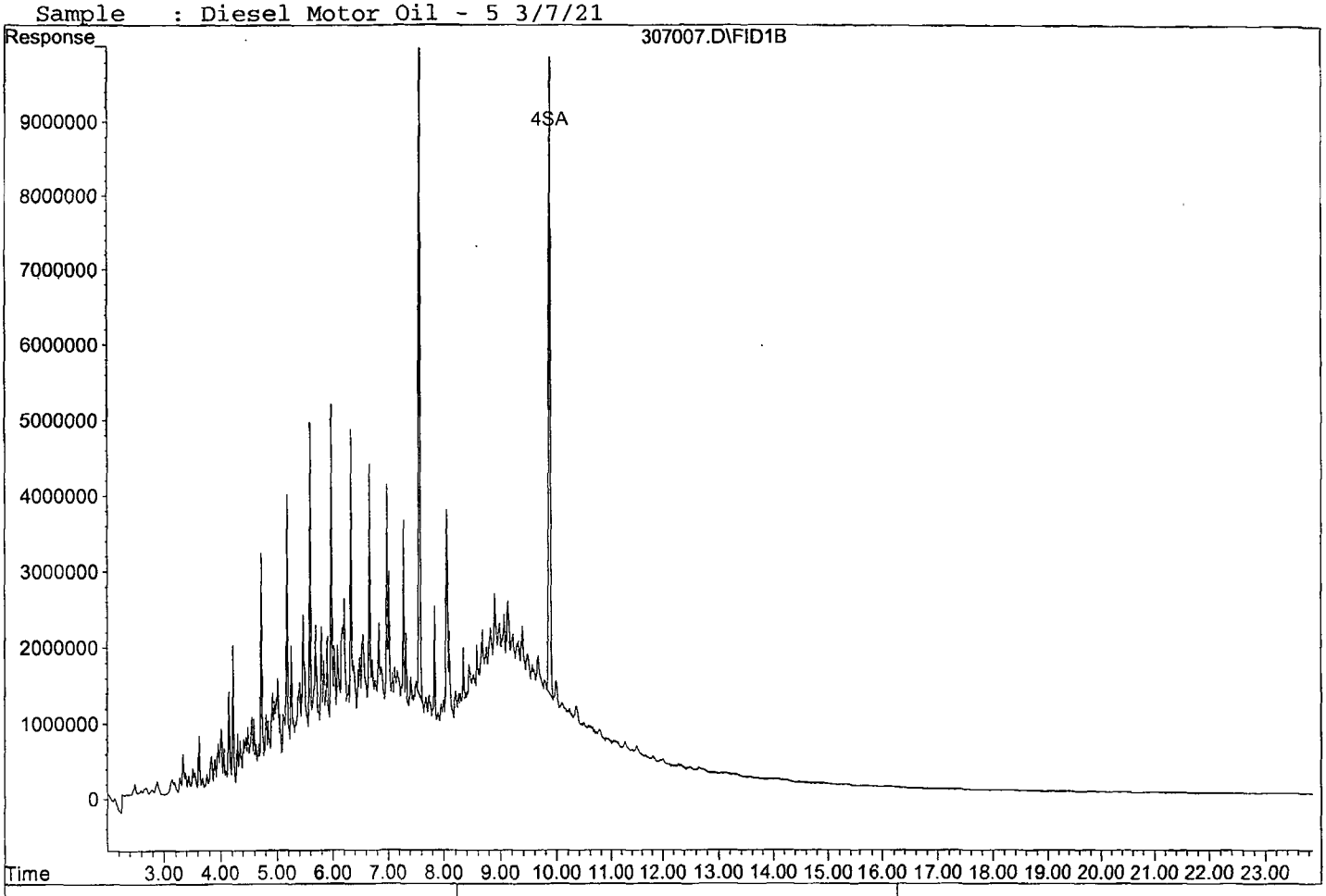
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

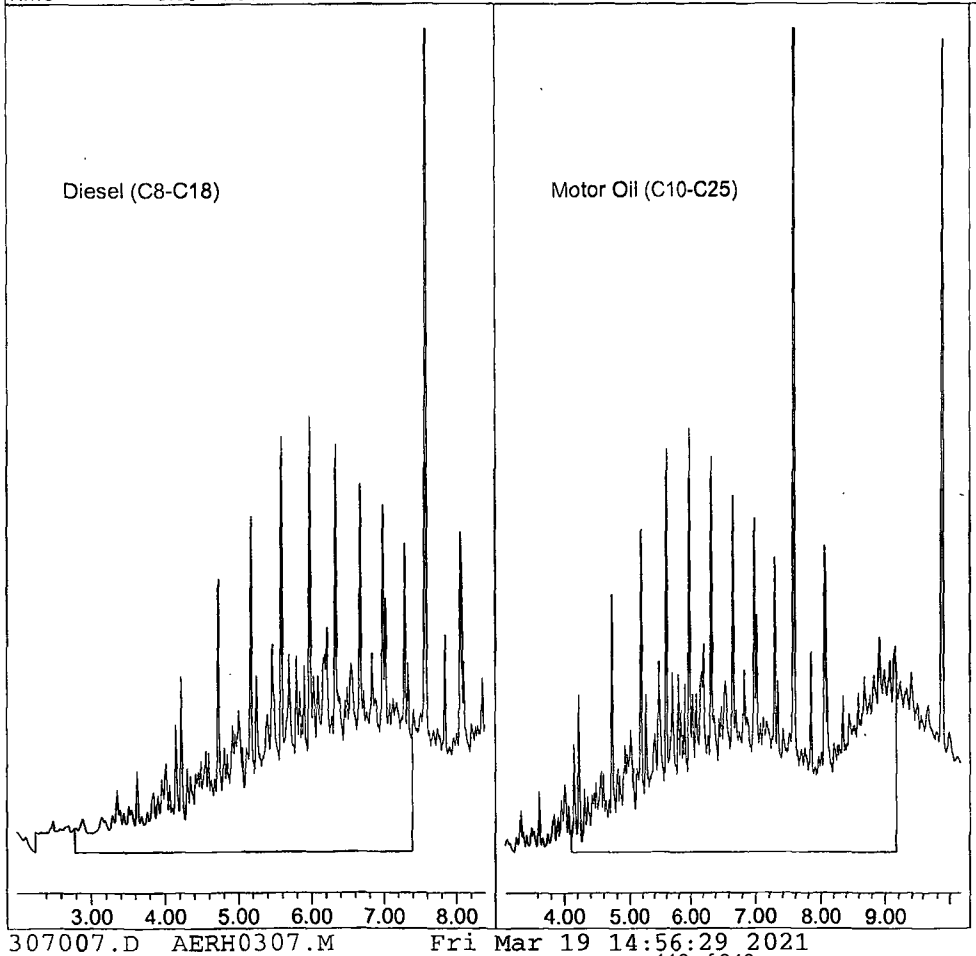
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	227255186	45.219 ppb
Surrogate Spike 30.000		Recovery =	150.73%
4) SA Octacosane(S)	9.89	182150876	46.805 ppb
Surrogate Spike 30.000		Recovery =	156.02%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	3579347645	1033.230 ppb
2) HBTM Motor Oil (C10-C25)	6.64	4296222058	944.459 ppb

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

Data File: G:\APOLLO\DATA\210307\307007.D
Sample : Diesel Motor Oil - 5 3/7/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307008.D Vial: 8
Acq On : 3-7-21 18:54:47 Operator: BT
Sample : Diesel Motor Oil - 6 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

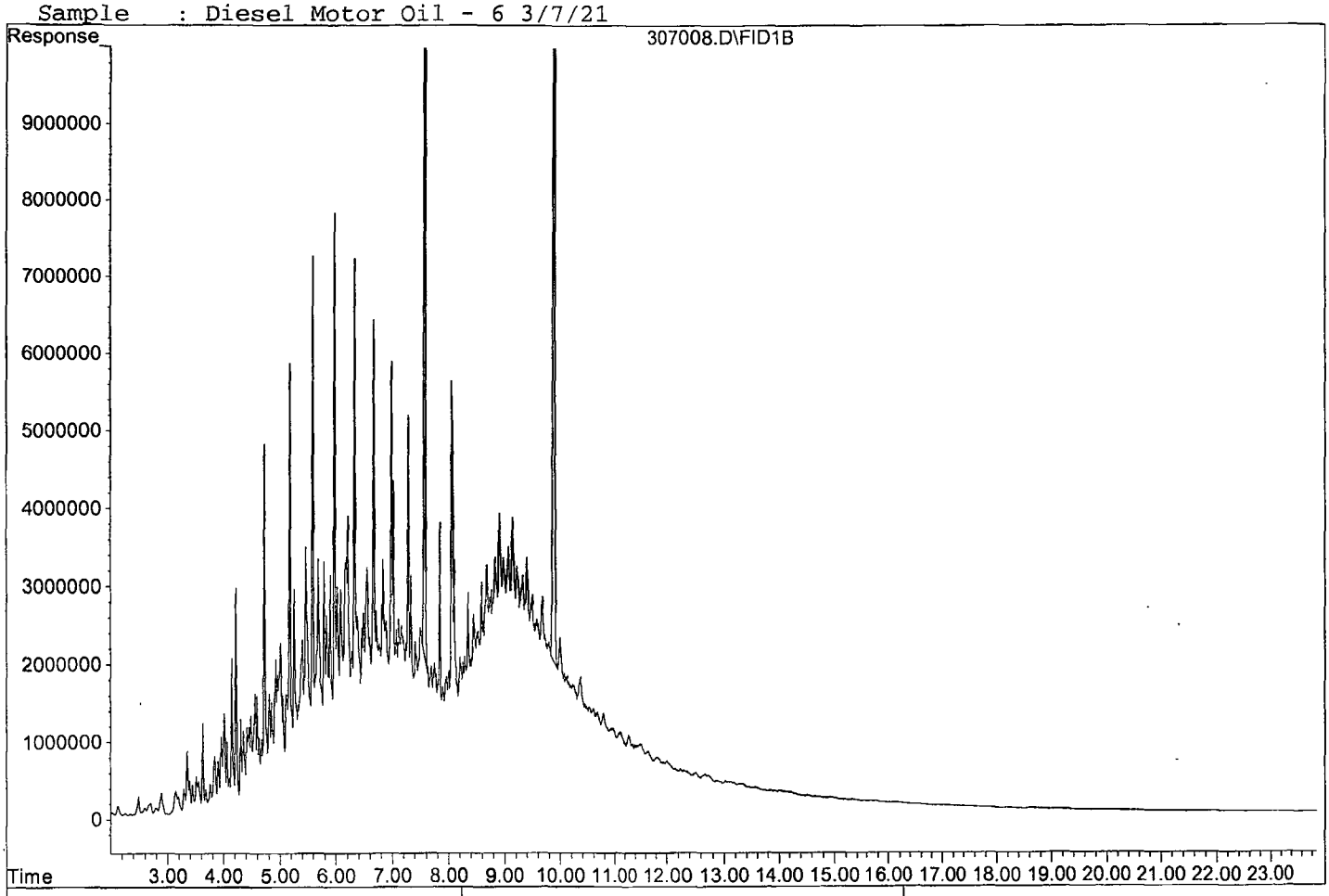
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

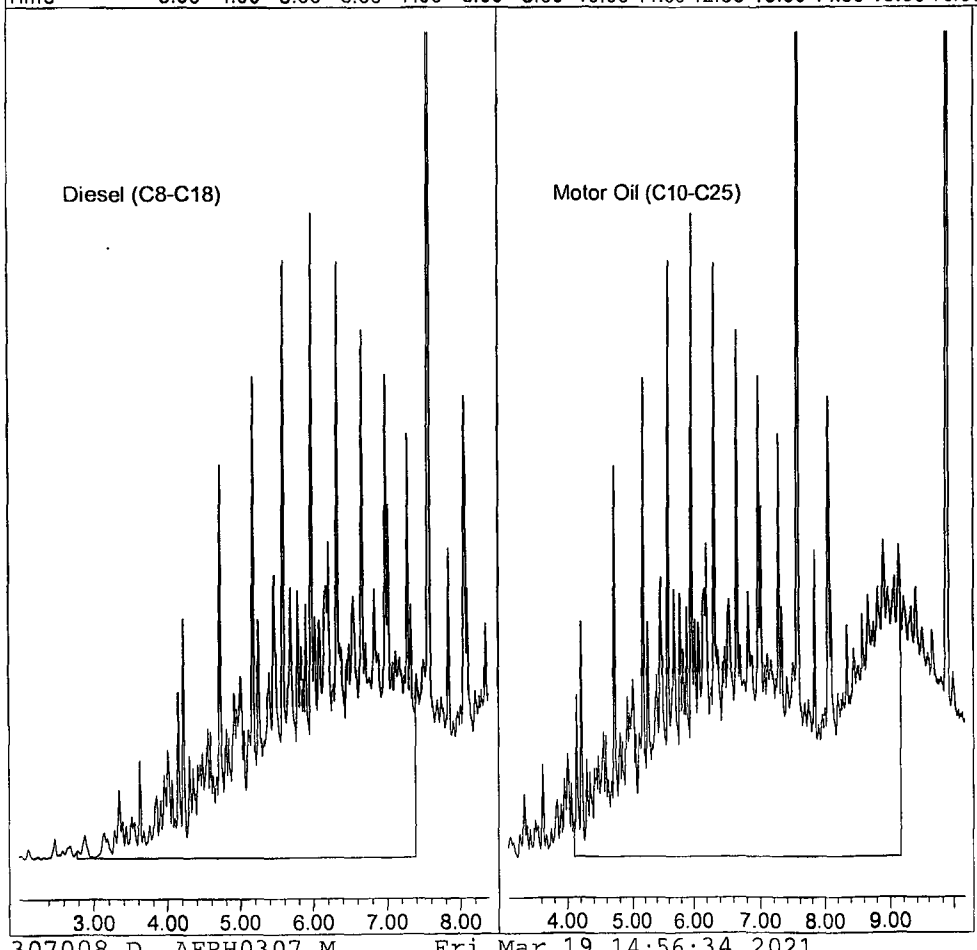
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.58	326883593	65.043 ppb
Surrogate Spike 30.000		Recovery =	216.81%
4) SA Octacosane(S)	9.89	269201590	69.173 ppb
Surrogate Spike 30.000		Recovery =	230.58%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	4350821447	1255.926 ppb
2) HBTM Motor Oil (C10-C25)	6.64	6415941723	1410.446 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307008.D
Sample : Diesel Motor Oil - 6 3/7/21





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307009.D Vial: 9
Acq On : 3-7-21 19:23:02 Operator: BT
Sample : Diesel Motor Oil - 7 3/7/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:50 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

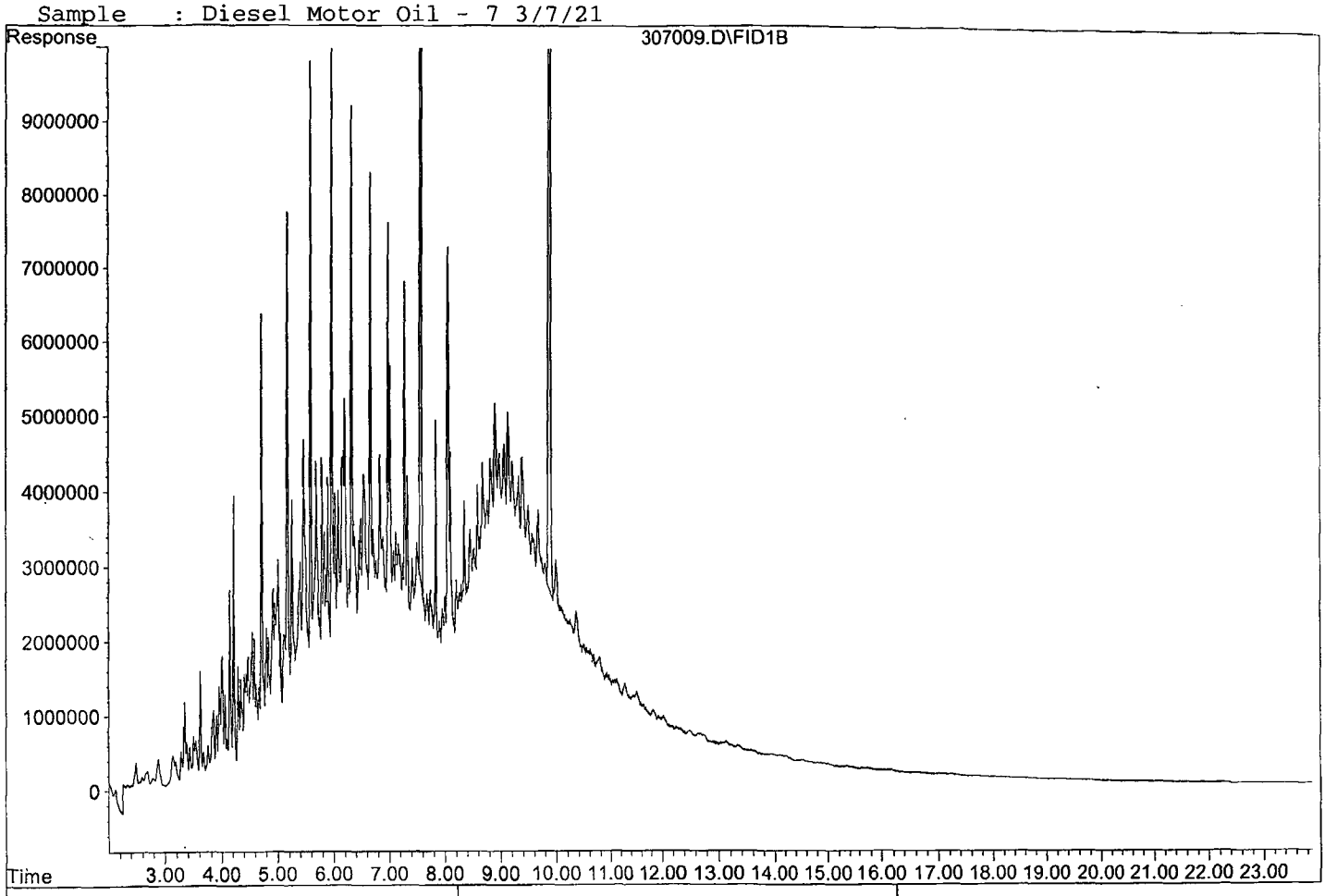
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

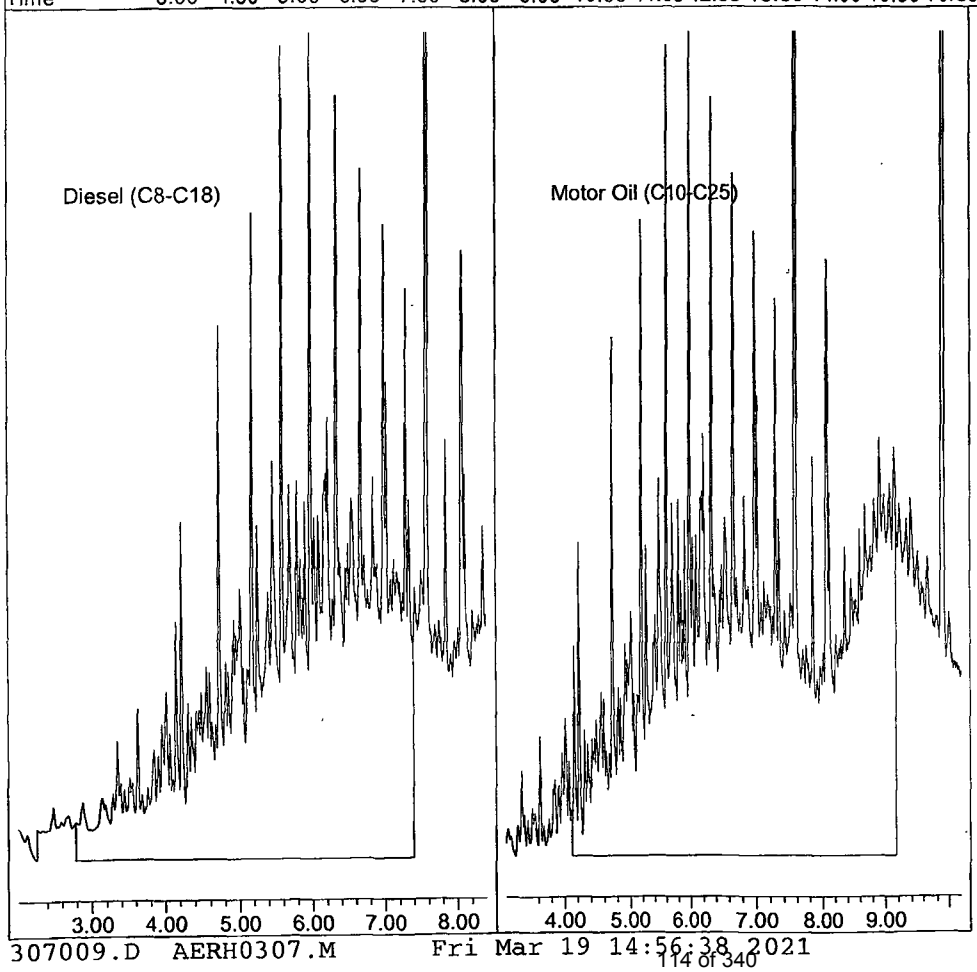
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.58	437647797	87.082 ppb
Surrogate Spike 30.000		Recovery =	290.27%
4) SA Octacosane(S)	9.89	362051351	93.031 ppb
Surrogate Spike 30.000		Recovery =	310.10%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	6831753836	1972.083 ppb
2) HBTM Motor Oil (C10-C25)	6.64	8570232232	1884.034 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307009.D
Sample : Diesel Motor Oil - 7 3/7/21





307009.D AERH0307.M Fri Mar 19 14:56:38 2021

TPH Extractables
AERH0307

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/07/21
Instrument: Apollo
Initial Cal. Date: 03/07/21
Data File: 307010.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1732120	1513520	13	HATM	
2	HBTM	Motor Oil (C10-C25)	2274440	2260930	0.59	HBTM	
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		Average			6.8		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210307\307010.D
Acq On : 3-7-21 19:51:21
Sample : Diesel Motor Oil SS 7/21/20
Misc : water
IntFile : events.e
Quant Time: Mar 19 14:53 2021 Quant Results File: AERH0307.RES

Vial: 10
Operator: BT
Inst : Apollo
Multiplr: 1.00

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

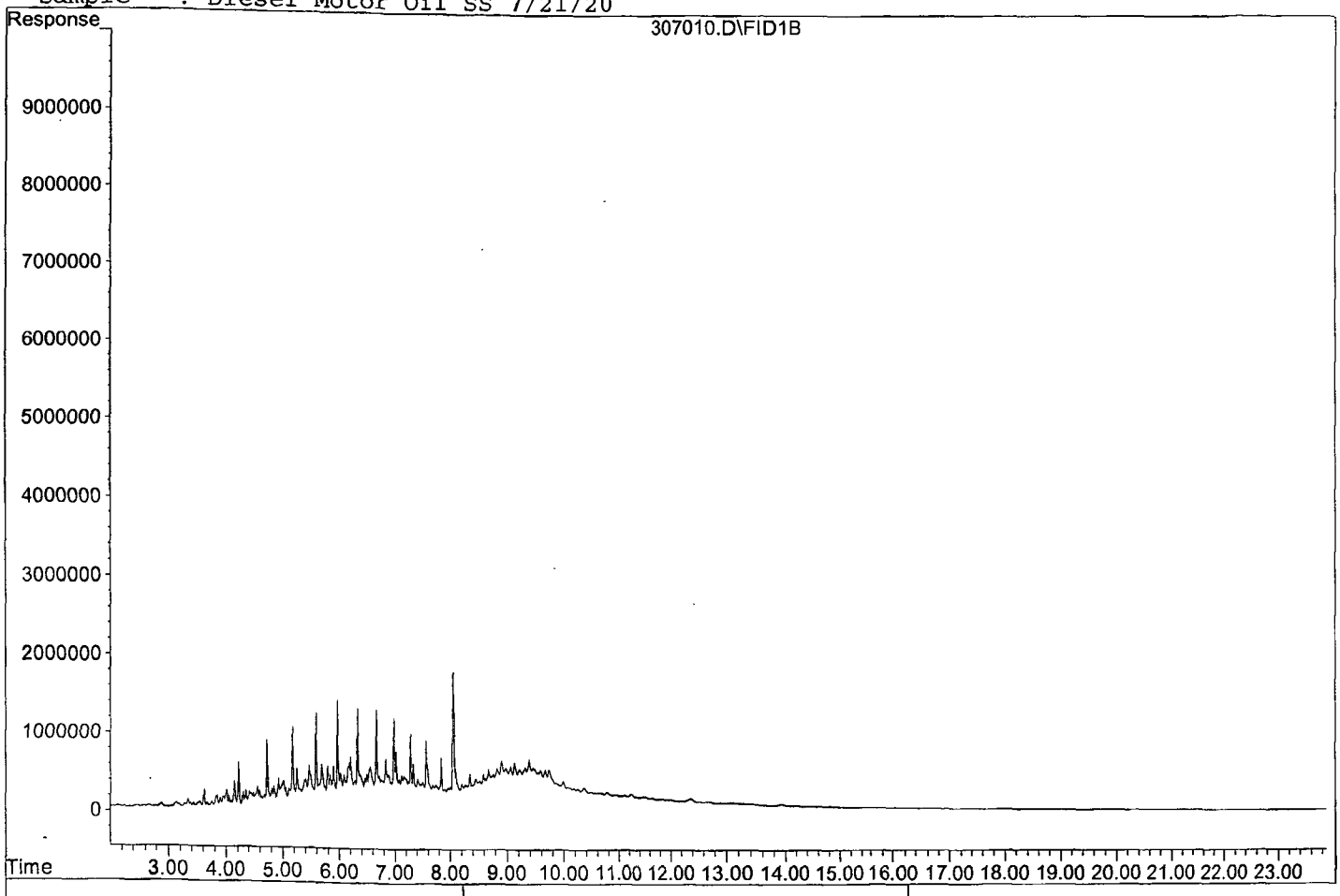
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

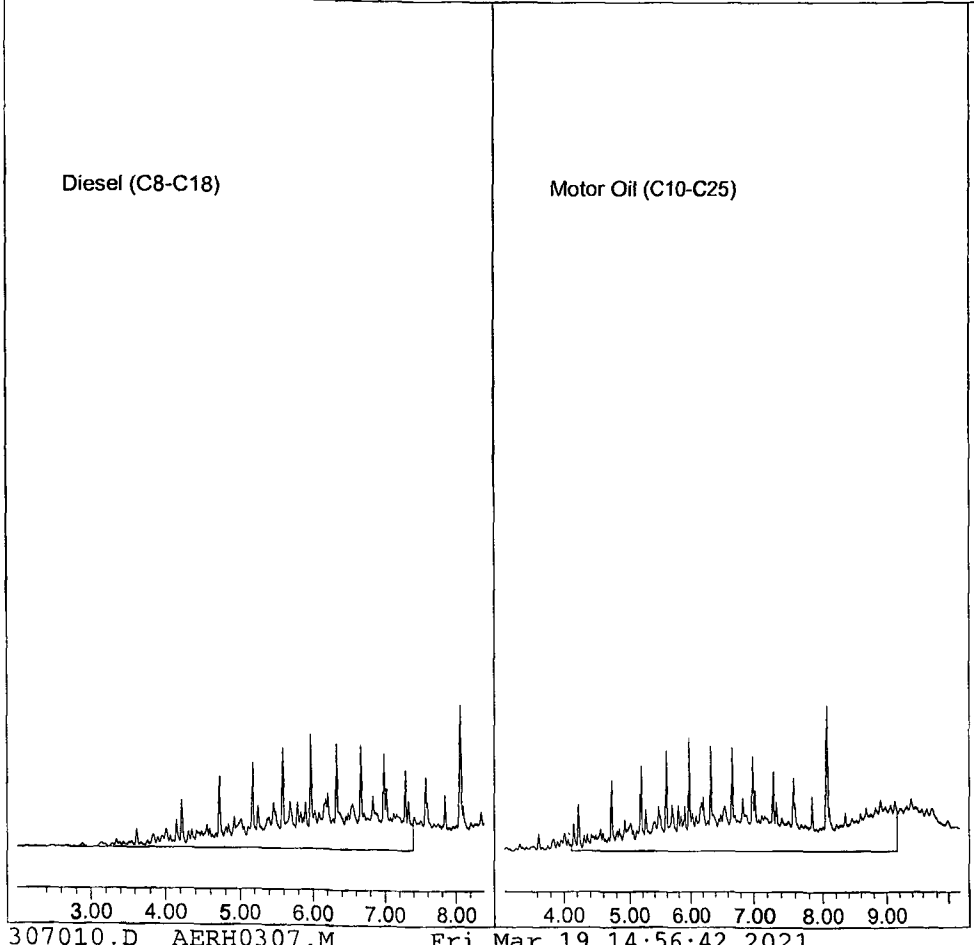
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	756758450	218.449 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1130464178	248.515 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307010.D
Sample : Diesel Motor Oil SS 7/21/20





TPH Extractables
AERH0212

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/02/21
Instrument: Apollo
Initial Cal. Date: 02/12/21
Data File: 302003.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1796520	1599000	11	HATML	12
2	HBTM	Motor Oil (C10-C25)	3481010	2318230	33	HBTML	8.4
3	SA	Ortho-Terphenyl(S)	2579970	2632660	2.0	SA	
4	SA	Octacosane(S)	2033230	2104560	3.5	SA	
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		Average			12.4		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210302\302003.D Vial: 3
Acq On : 3-2-21 14:32:05 Operator: LS
Sample : Diesel Motor Oil- CCV 2/2/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

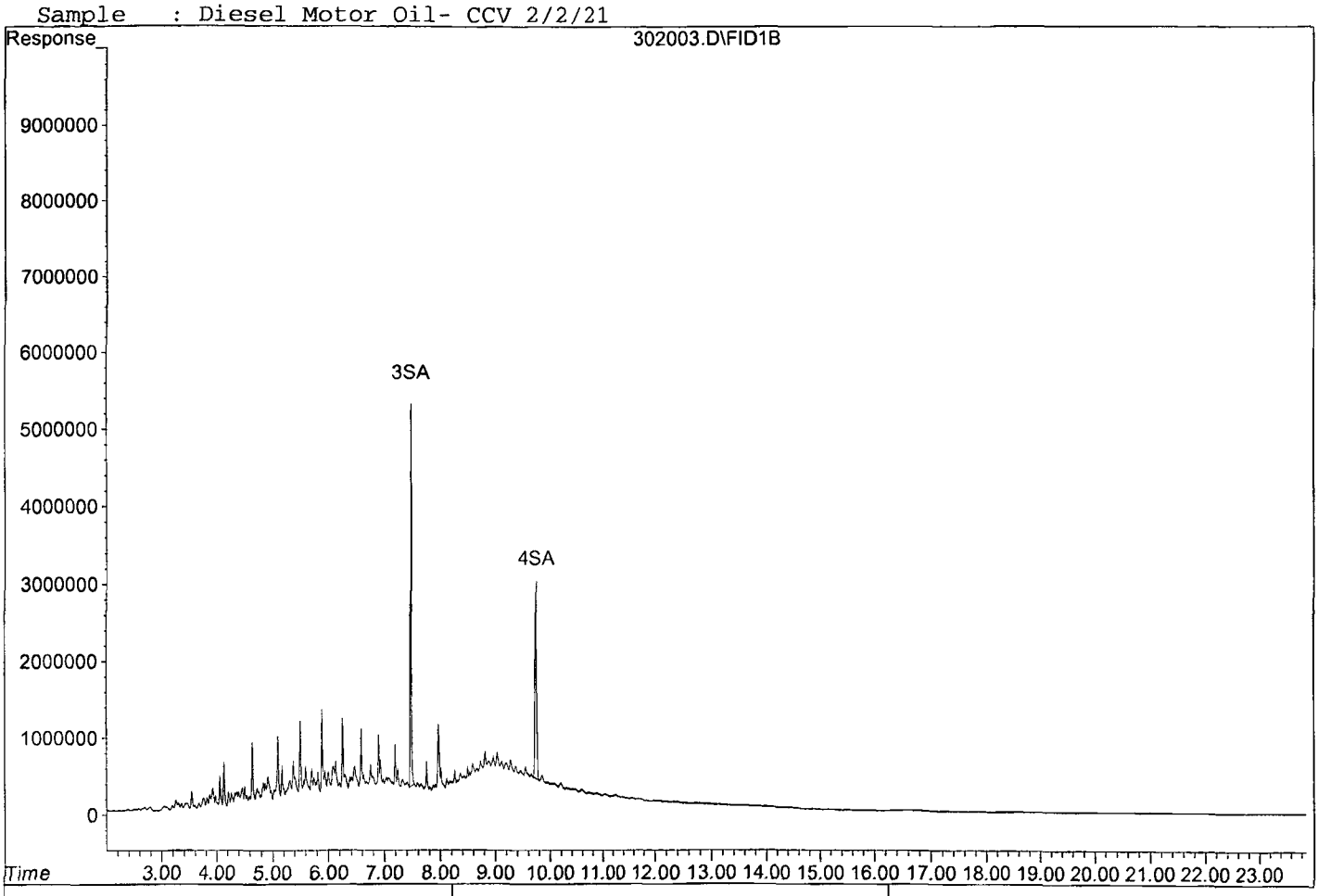
Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

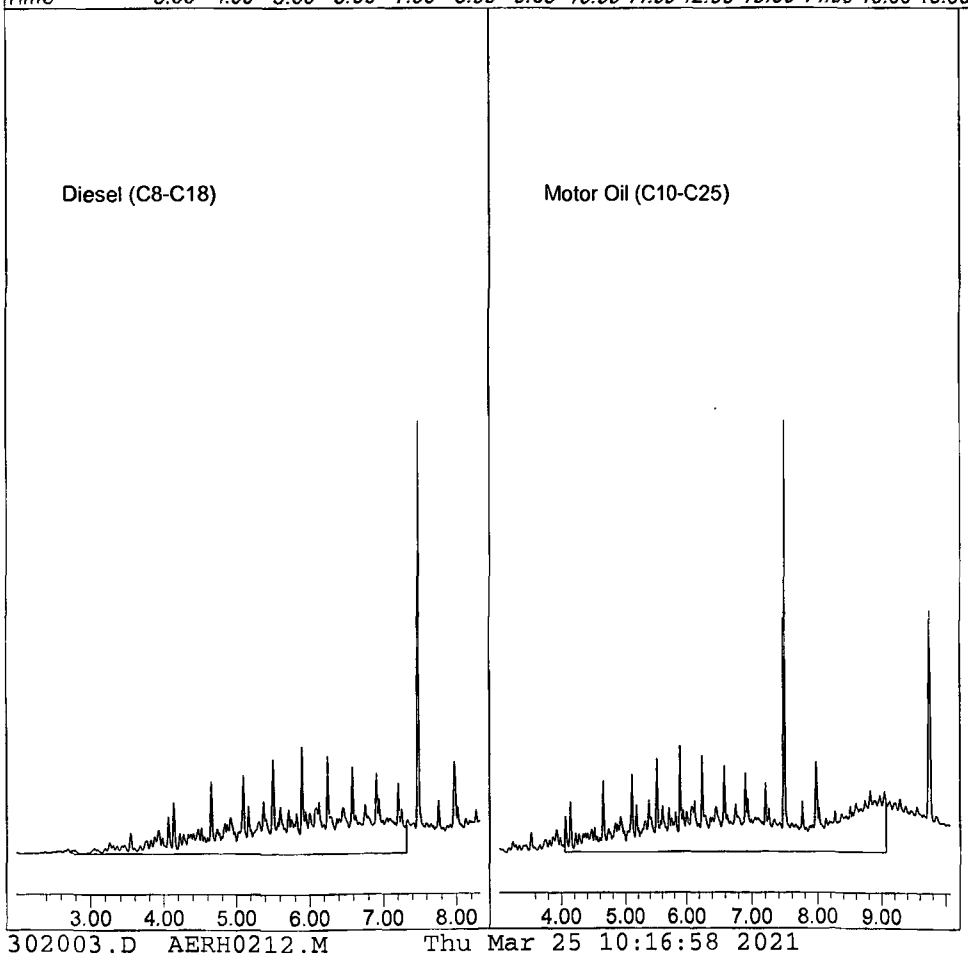
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	65816494	12.755 ppb
Surrogate Spike 30.000		Recovery =	42.52%
4) SA Octacosane(S)	9.75	52614058	12.939 ppb
Surrogate Spike 30.000		Recovery =	43.13%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	799499724	280.914 ppb
2) HBTM Motor Oil (C10-C25)	6.56	1159114739	271.090 ppb

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

Data File: G:\APOLLO\DATA\210302\302003.D
Sample : Diesel Motor Oil- CCV 2/2/21





302003.D AERH0212.M Thu Mar 25 10:16:58 2021

TPH Extractables
AERH0212

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/02/21
Instrument: Apollo
Initial Cal. Date: 02/12/21
Data File: 302011.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1796520	1609480	10	HATML	13
2	HBTM	Motor Oil (C10-C25)	3481010	2346600	33	HBTML	9.8
3	SA	Ortho-Terphenyl(S)	2579970	2667320	3.4	SA	
4	SA	Octacosane(S)	2033230	2135340	5.0	SA	
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		Average			12.9		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210302\302011.D
Vial: 11
Acq On : 3-2-21 18:30:04
Operator: LS
Sample : Diesel Motor Oil- CCV 2/2/21
Inst : Apollo
Misc : water
Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

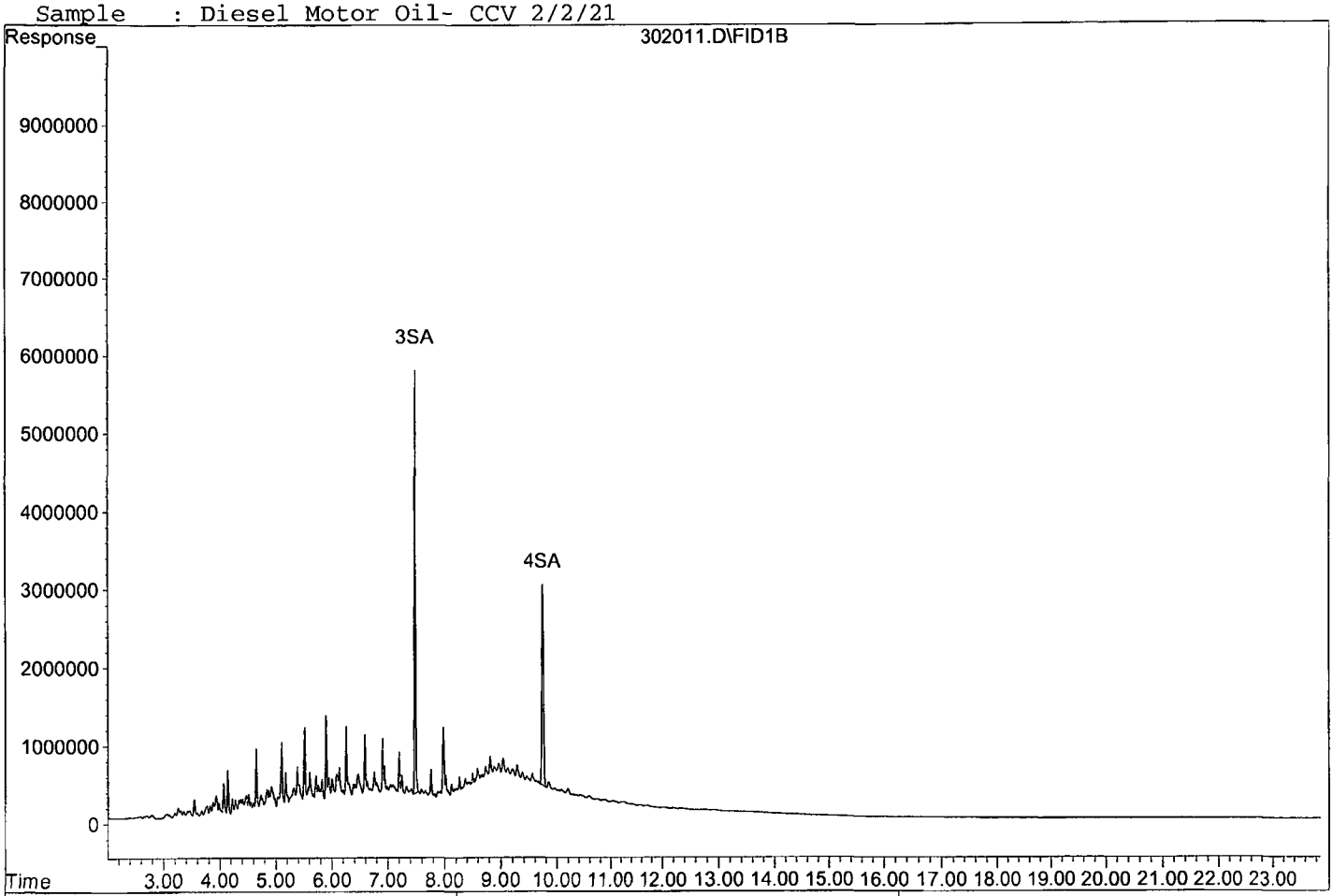
Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

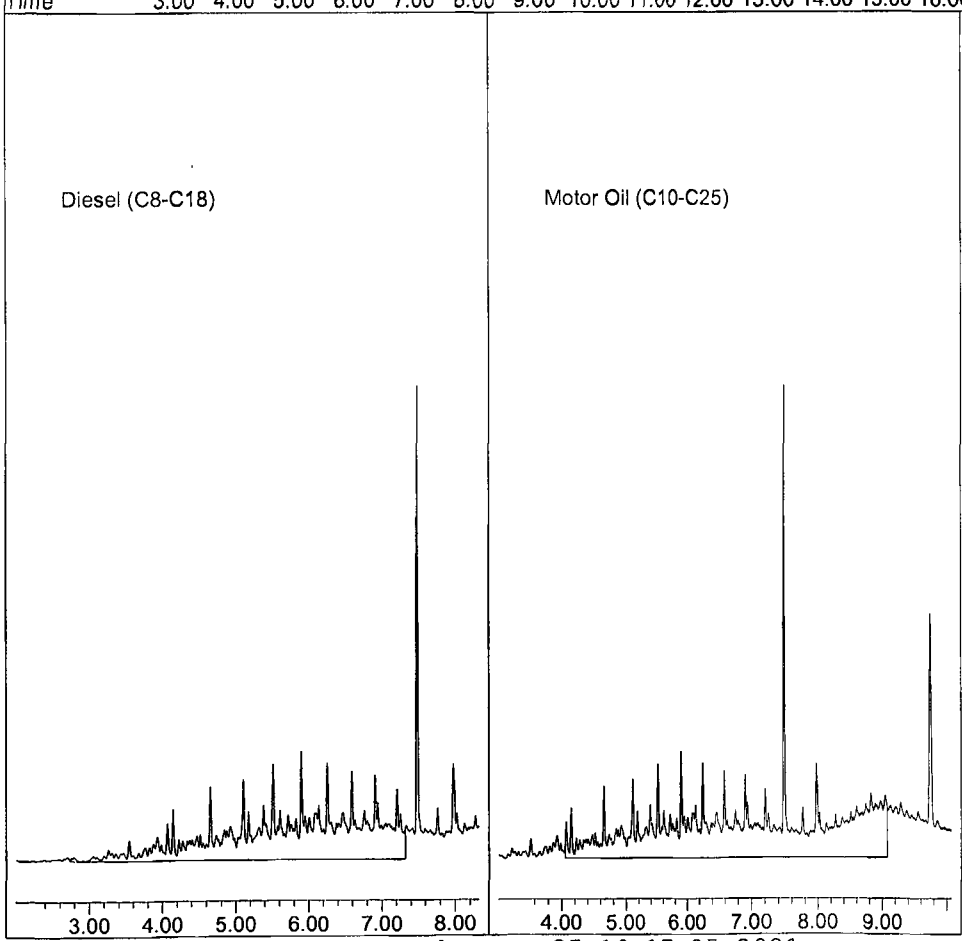
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	66682925	12.923 ppb
Surrogate Spike 30.000		Recovery =	43.08%
4) SA Octacosane(S)	9.75	53383419	13.128 ppb
Surrogate Spike 30.000		Recovery =	43.76%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	804737865	282.795 ppb
2) HBTM Motor Oil (C10-C25)	6.56	1173299701	274.520 ppb

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

Data File: G:\APOLLO\DATA\210302\302011.D
Sample : Diesel Motor Oil- CCV 2/2/21





TPH Extractables
AERH0307

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/17/21
Instrument: Apollo
Initial Cal. Date: 03/07/21
Data File: 307228.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1732120	1441130	17	HATM	
2	HBTM	Motor Oil (C10-C25)	2274440	2130860	6.3	HBTM	
3	SA	Ortho-Terphenyl(S)	2512850	2389950	4.9	SA	
4	SA	Octacosane(S)	1945860	1923250	1.2	SA	
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		Average			7.4		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307228.D Vial: 28
Acq On : 3-17-21 14:14:03 Operator: BT
Sample : Diesel Motor Oil CCV 02-2-21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 15:43 2021 Quant Results File: AERH0307.RES

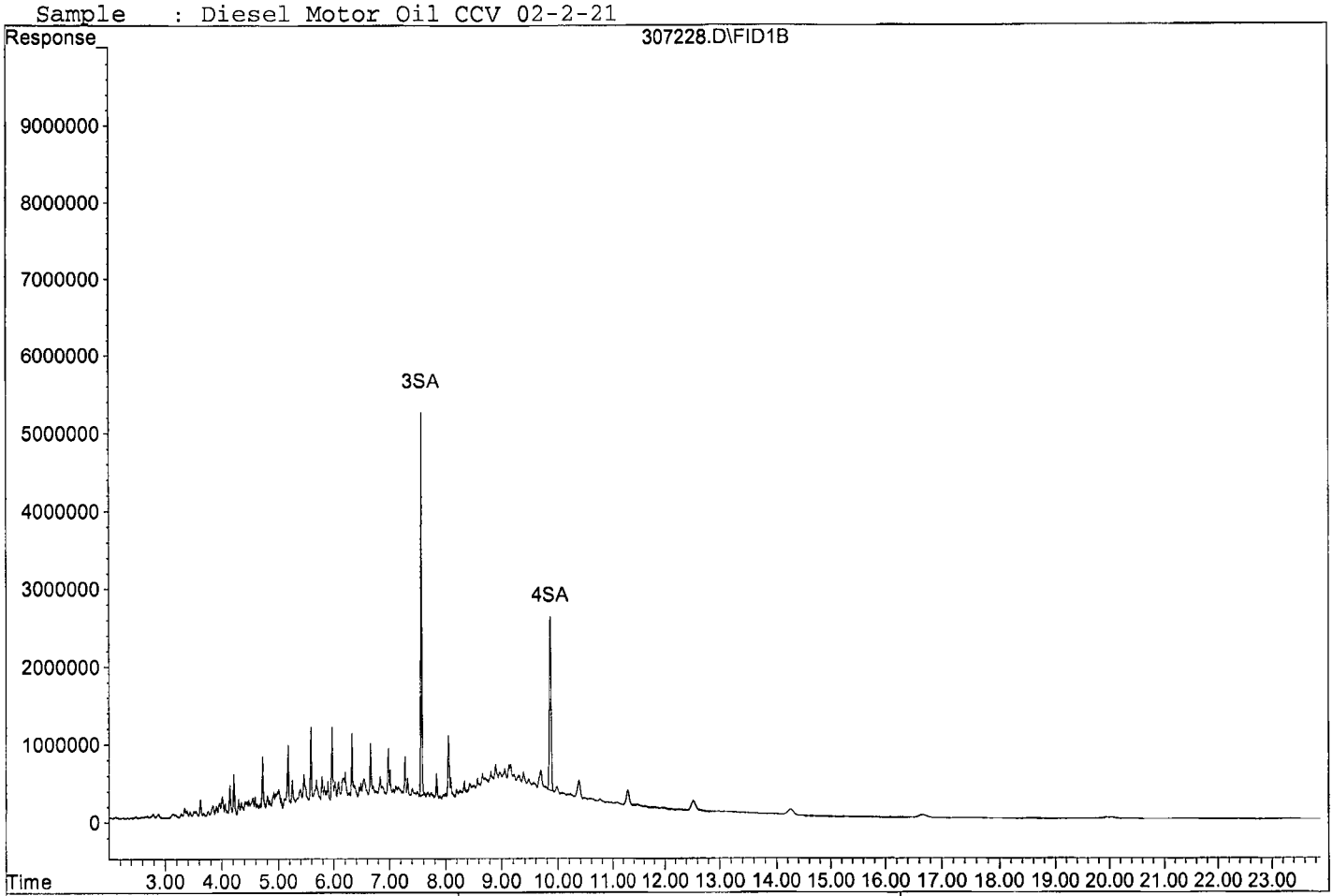
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

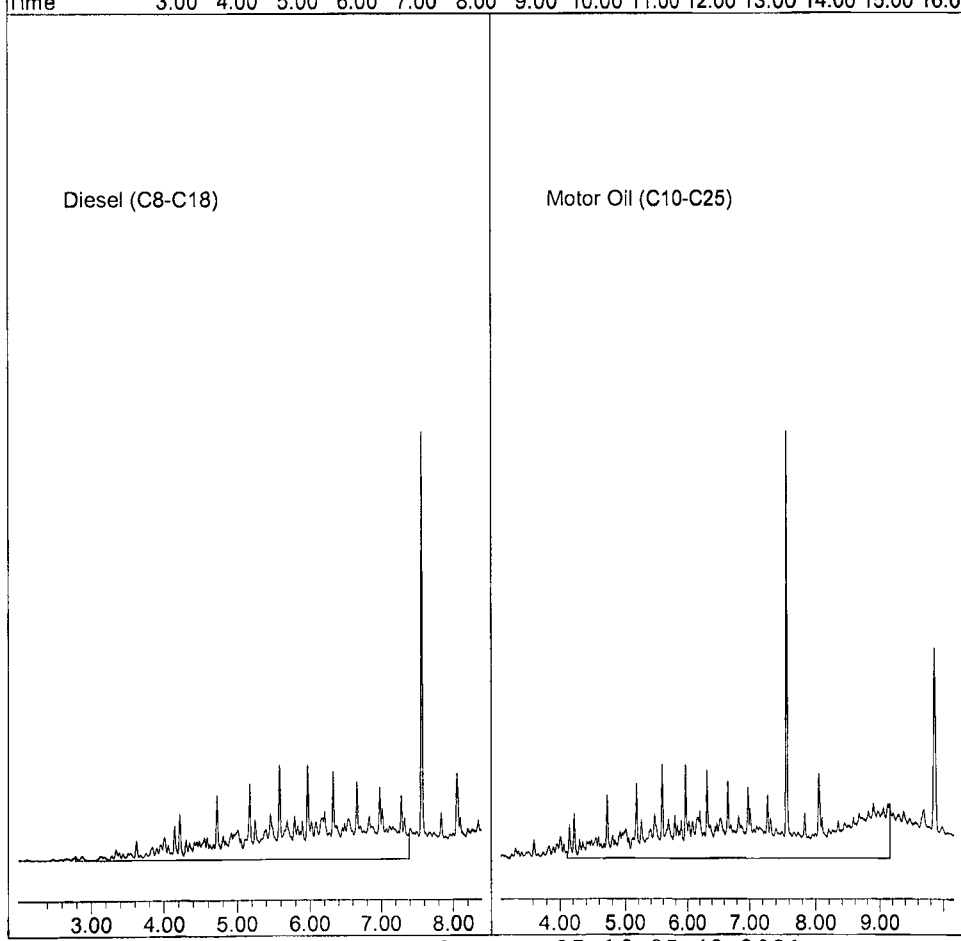
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	59748727	11.889 ppb
Surrogate Spike 30.000		Recovery =	39.63%
4) SA Octacosane(S)	9.87	48081159	12.355 ppb
Surrogate Spike 30.000		Recovery =	41.18%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	720563209	208.001 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1065430597	234.219 ppb

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

Data File: G:\APOLLO\DATA\210307\307228.D
Sample : Diesel Motor Oil CCV 02-2-21





TPH Extractables
AERH0307

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/17/21
Instrument: Apollo
Initial Cal. Date: 03/07/21
Data File: 307236.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1732120	1412950	18	HATM	
2	HBTM	Motor Oil (C10-C25)	2274440	2082570	8.4	HBTM	
3	SA	Ortho-Terphenyl(S)	2512850	2332730	7.2	SA	
4	SA	Octacosane(S)	1945860	1882670	3.2	SA	
5							
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36							
37							
38							
39							
40							
		Average			9.2		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307236.D Vial: 36
Acq On : 3-17-21 18:03:29 Operator: BT
Sample : Diesel Motor Oil CCV 02-2-21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 15:41 2021 Quant Results File: AERH0307.RES

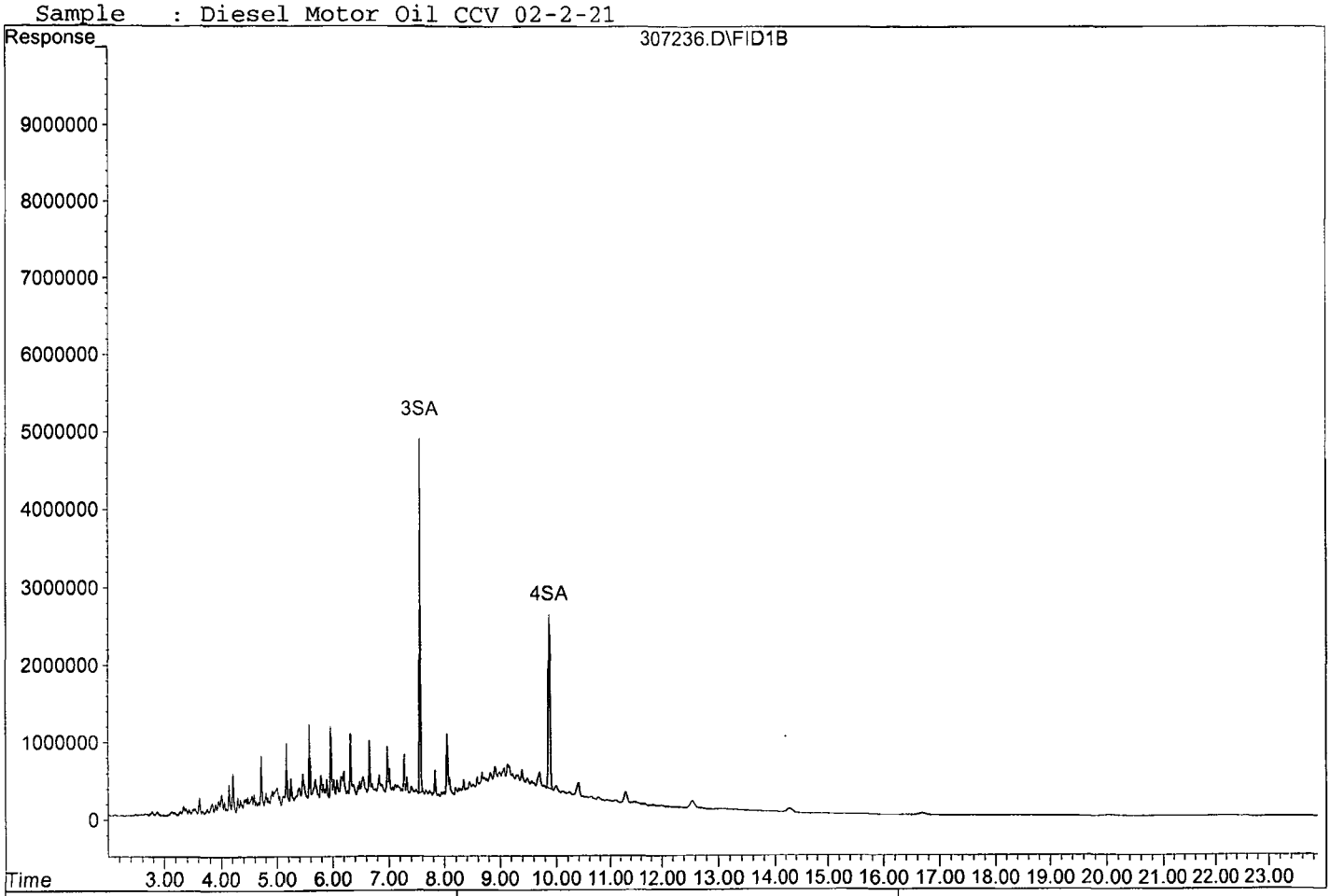
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

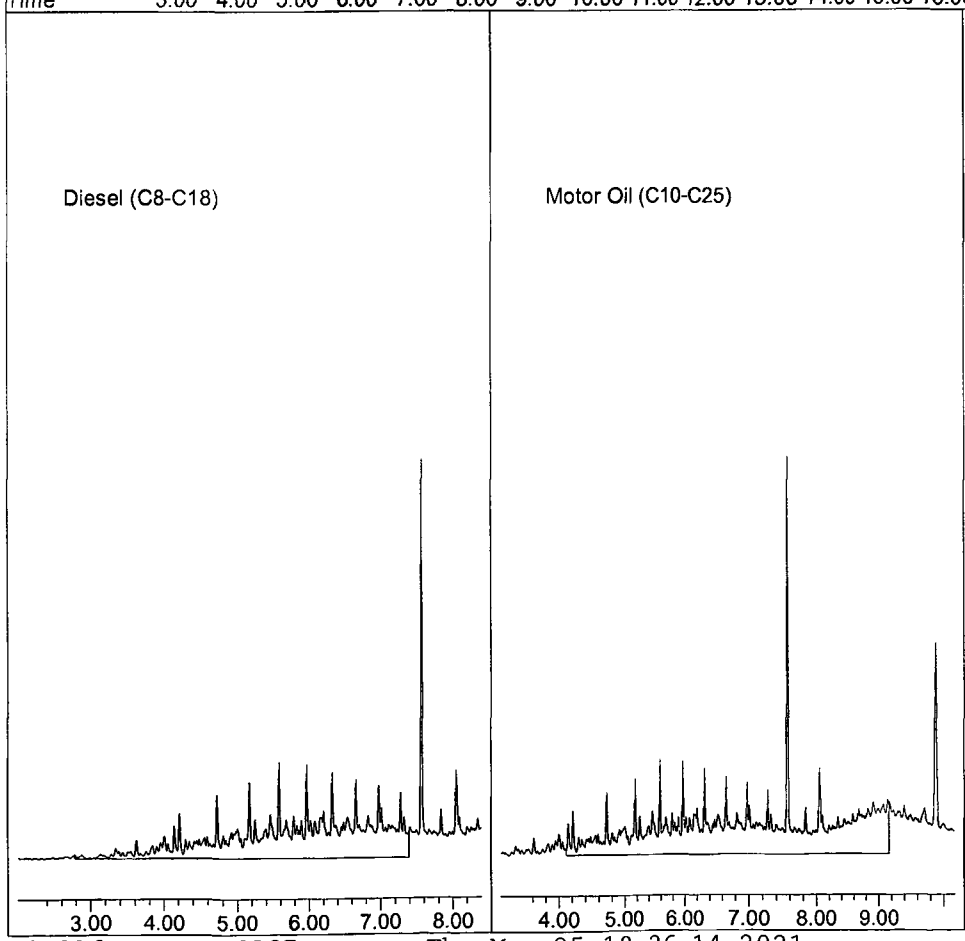
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	58318239	11.604 ppb
Surrogate Spike 30.000		Recovery =	38.68%
4) SA Octacosane(S)	9.88	47066671	12.094 ppb
Surrogate Spike 30.000		Recovery =	40.31%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	706473673	203.934 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1041285731	228.911 ppb

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

Data File: G:\APOLLO\DATA\210307\307236.D
Sample : Diesel Motor Oil CCV 02-2-21





307236.D AERH0307.M Thu Mar 25 10:26:14 2021

TPH Extractables
DEC0208

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/17/21
Instrument: Apollo
Initial Cal. Date: 02/08/21
Data File: 307220.D

		Compound	MEAN	CCRF	%D		%Drift
1	SC	Decanoic Acid(S)	1002930	1149540	15	SC	
2							
3							
4							
5							
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39							
40							
		Average			15.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307220.D
Acq On : 3-17-21 9:23:51
Sample : Decanoic Acid 4 03/09/21
Misc : water
IntFile : events.e
Quant Time: Mar 19 14:03 2021 Quant Results File: DEC0208.RES

Vial: 20
Operator: BT
Inst : Apollo
Multiplr: 1.00

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.75	82767155	41.263 ppb
Surrogate Spike 24.000		Recovery =	171.93%

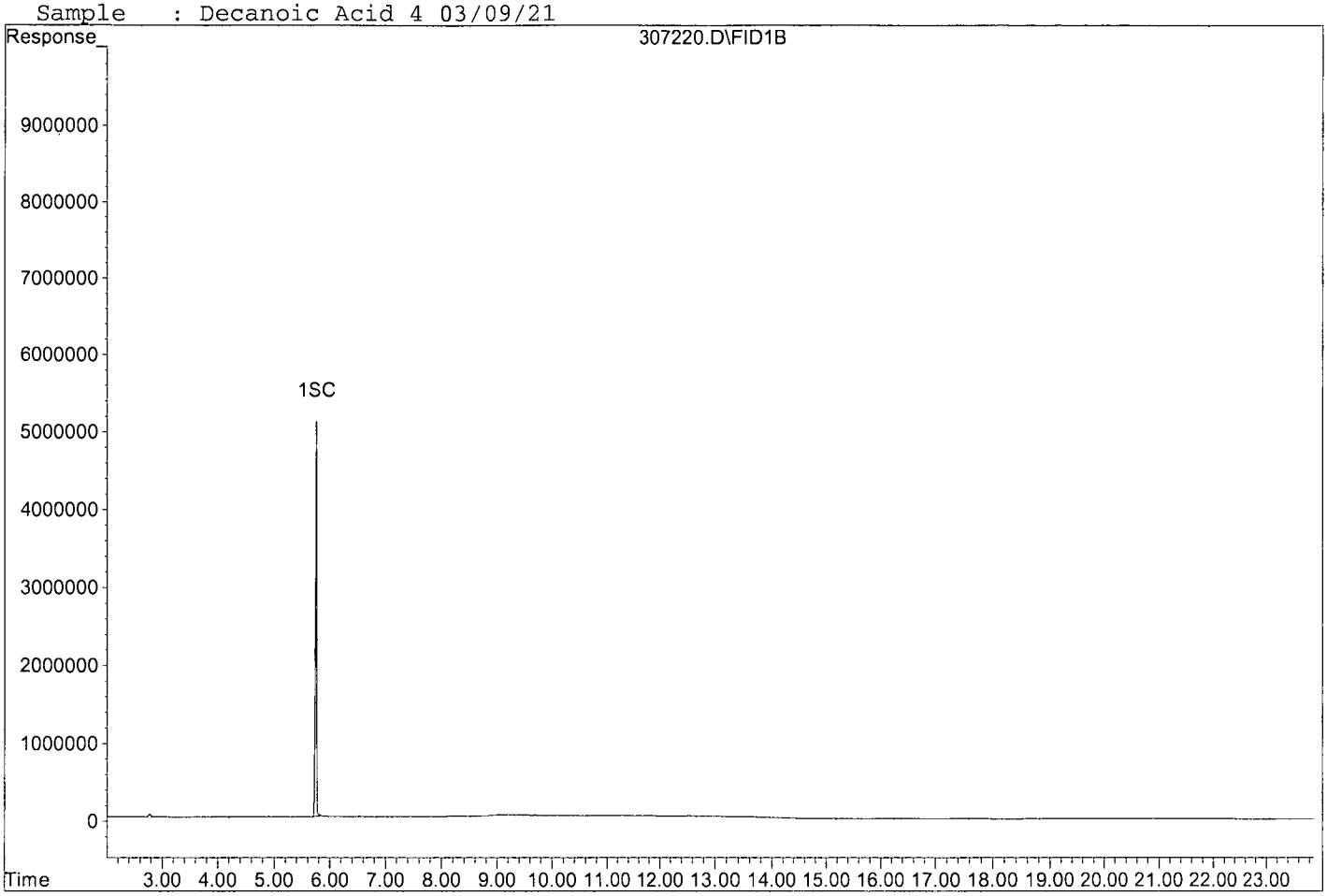
Target Compounds

Target Compounds

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307220.D
Sample : Decanoic Acid 4 03/09/21



TPH Extractables
DEC0208

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/17/21
Instrument: Apollo
Initial Cal. Date: 02/08/21
Data File: 307237.D

		Compound	MEAN	CCRF	%D	%Drift	
1	SC	Decanoic Acid(S)	1002930	1131480	13	SC	
2							
3							
4							
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39							
40							
		Average			13.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307237.D Vial: 37
Acq On : 3-17-21 18:32:03 Operator: BT
Sample : Decanoic Acid 4 03/09/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:53 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	5.75	81466232	40.614 ppb
Surrogate Spike 24.000		Recovery =	169.23%

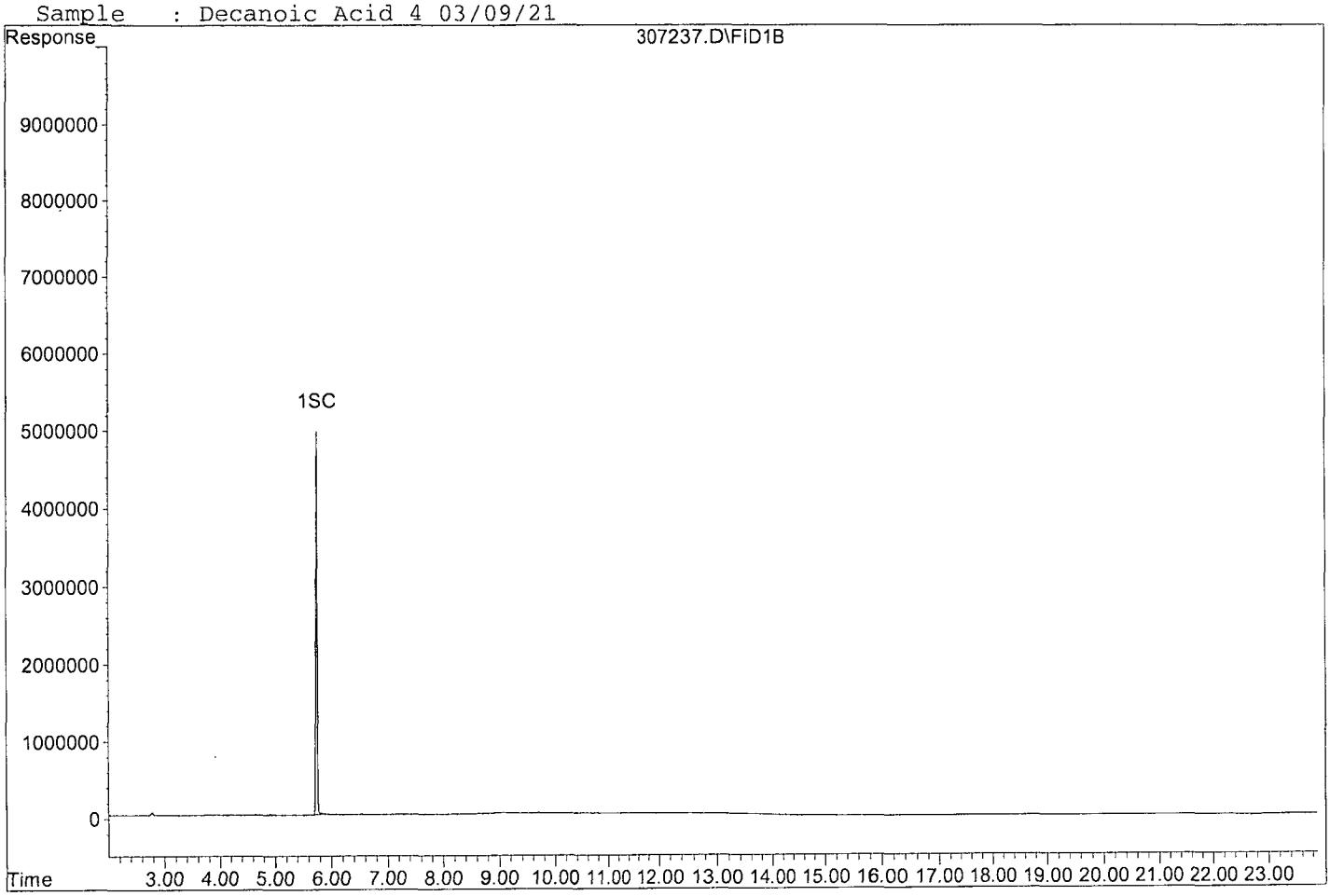
Target Compounds

Target Compounds

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307237.D
Sample : Decanoic Acid 4 03/09/21



TPH Extractables
AERH0307

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/23/21
Instrument: Apollo
Initial Cal. Date: 03/07/21
Data File: 322060.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1732120	1386730	20	HATM	
2	HBTM	Motor Oil (C10-C25)	2274440	2116370	6.9	HBTM	
3	SA	Ortho-Terphenyl(S)	2512850	2232810	11	SA	
4	SA	Octacosane(S)	1945860	1926000	1.0	SA	
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39							
40							
		Average			9.7		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322060.D Vial: 60
Acq On : 3-23-21 13:26:19 Operator: MB
Sample : Diesel Motor Oil CCV 03/19/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 9:18 2021 Quant Results File: AERH0307.RES

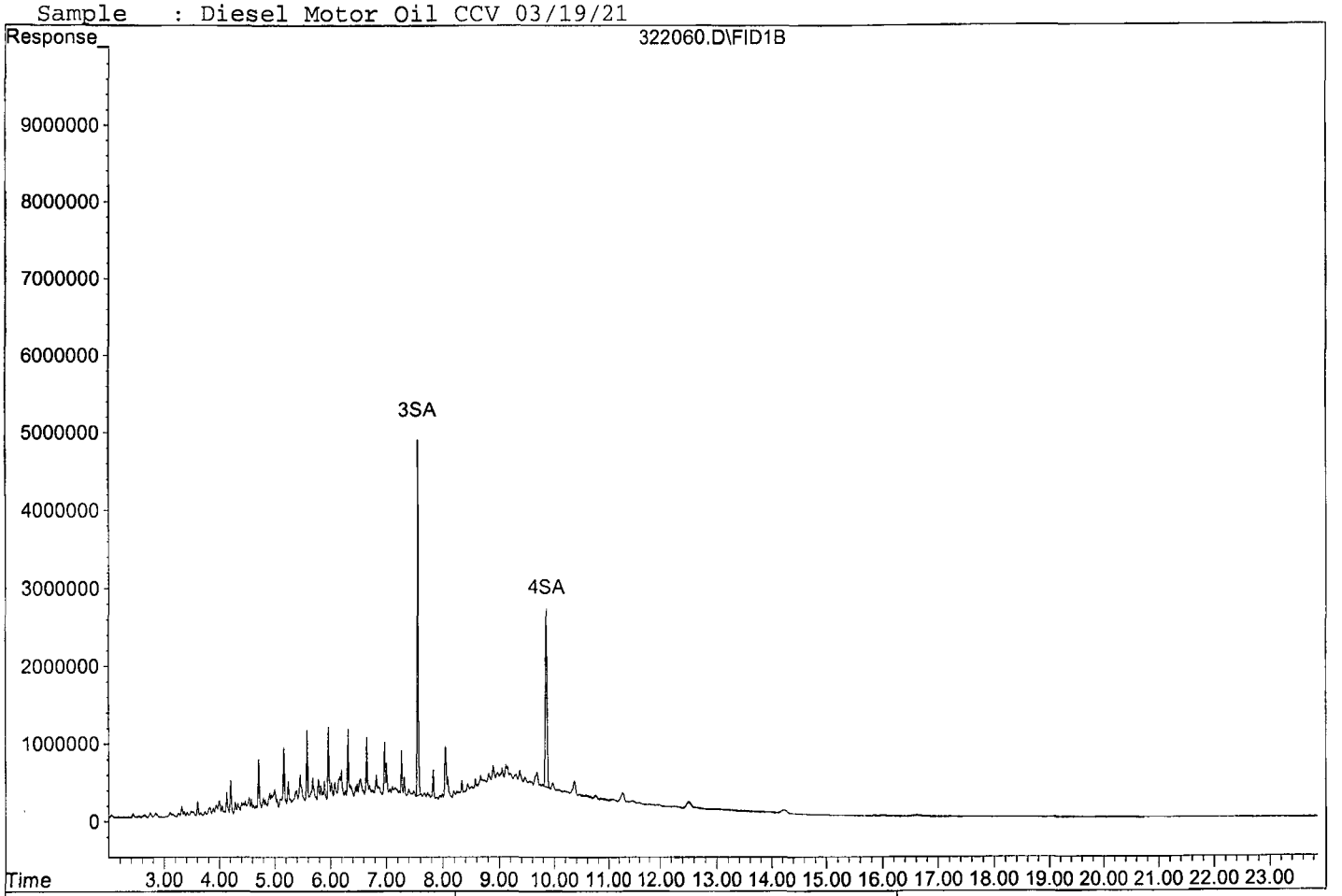
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

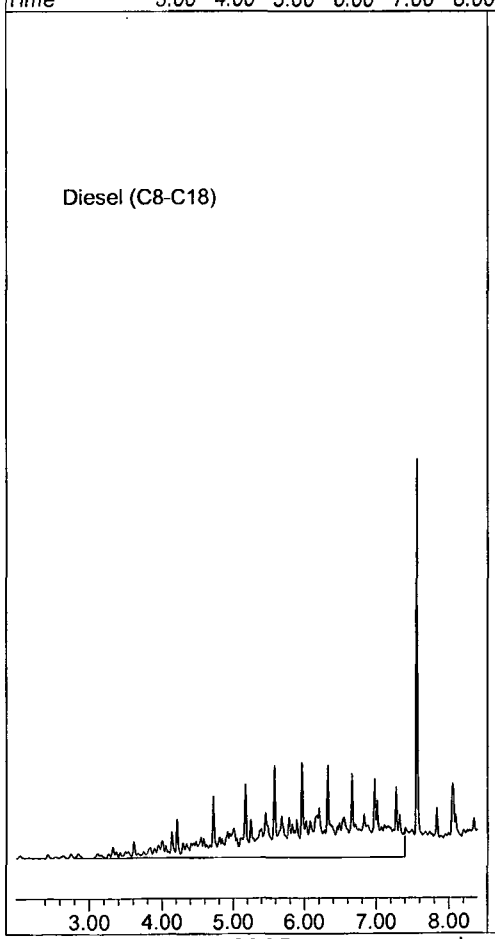
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

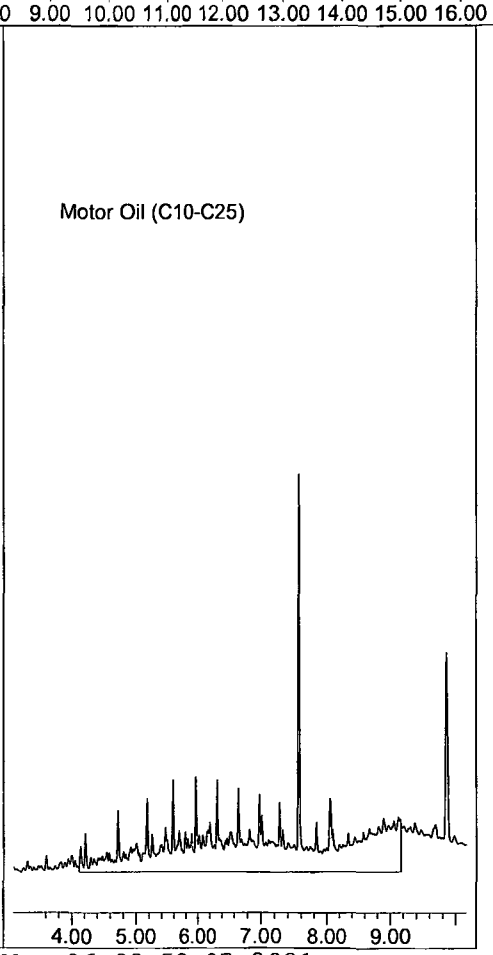
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	55820131	11.107 ppb
Surrogate Spike 30.000		Recovery =	37.02%
4) SA Octacosane(S)	9.86	48150008	12.372 ppb
Surrogate Spike 30.000		Recovery =	41.24%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	693367427	200.150 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1058184739	232.626 ppb

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

Data File: G:\APOLLO\DATA\210322\322060.D
Sample : Diesel Motor Oil CCV 03/19/21







TPH Extractables
AERH0307

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/23/21
Instrument: Apollo
Initial Cal. Date: 03/07/21
Data File: 322068.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C8-C18)	1732120	1406380	19	HATM	
2	HBTM	Motor Oil (C10-C25)	2274440	2111780	7.2	HBTM	
3	SA	Ortho-Terphenyl(S)	2512850	2250210	10	SA	
4	SA	Octacosane(S)	1945860	1931000	0.76	SA	
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40							
		Average			9.2		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322068.D Vial: 68
Acq On : 3-23-21 17:16:39 Operator: MB
Sample : Diesel Motor Oil CCV 03/19/21 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 26 9:24 2021 Quant Results File: AERH0307.RES

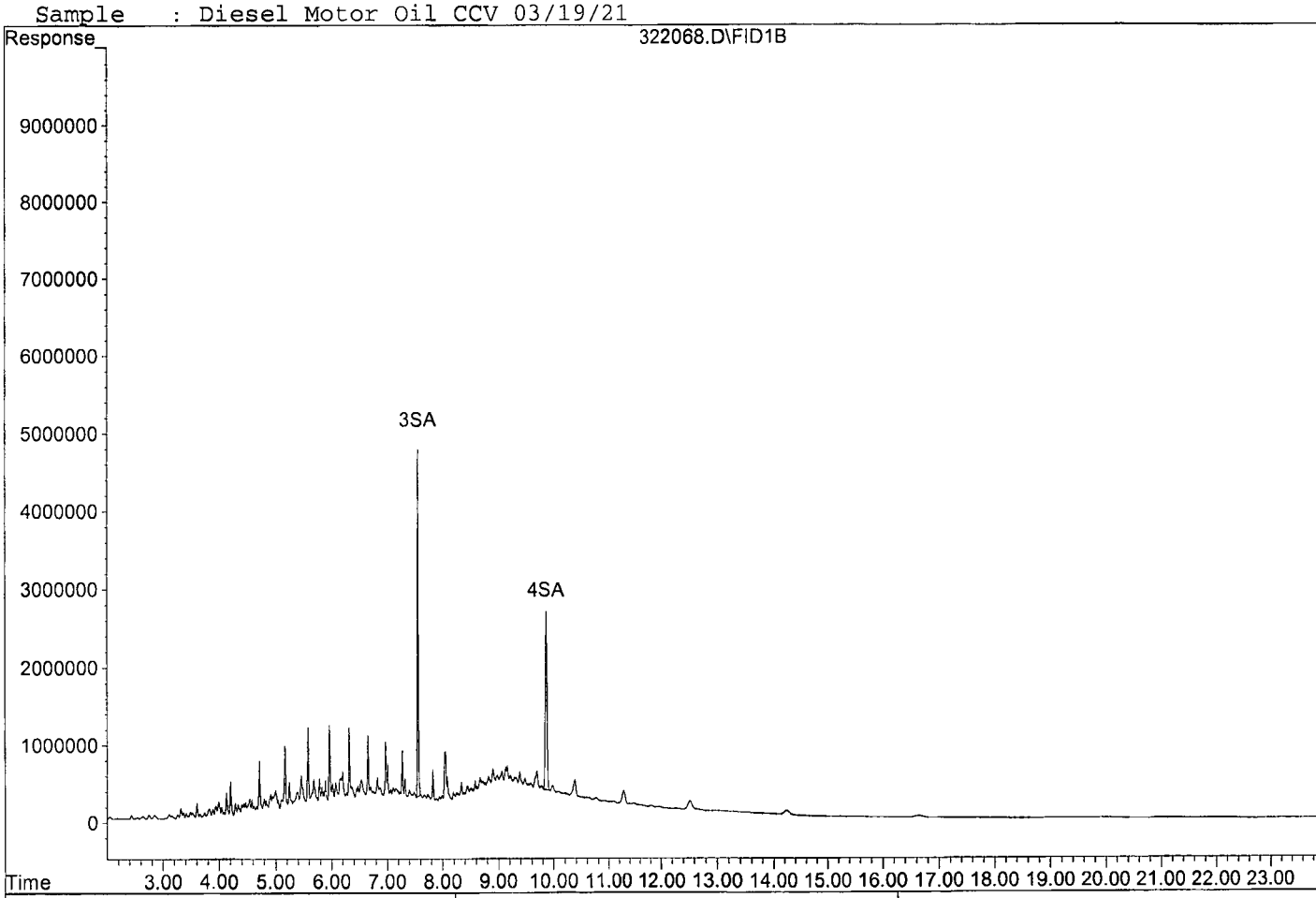
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

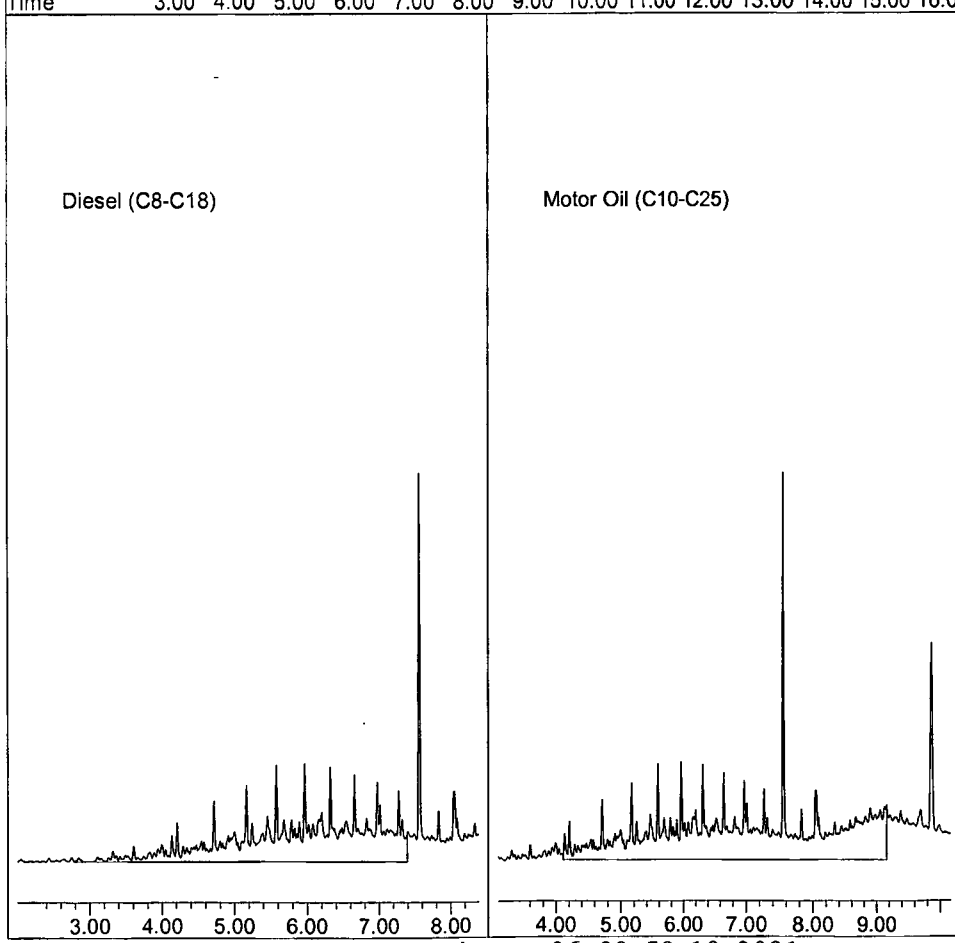
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	56255327	11.194 ppb
Surrogate Spike 30.000		Recovery =	37.31%
4) SA Octacosane(S)	9.87	48274946	12.405 ppb
Surrogate Spike 30.000		Recovery =	41.35%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	703191007	202.986 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1055889131	232.121 ppb

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

Data File: G:\APOLLO\DATA\210322\322068.D
Sample : Diesel Motor Oil CCV 03/19/21





322068.D AERH0307.M Fri Mar 26 09:52:10 2021

ORGANICS

Raw Data

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210302\302009.D Vial: 9
Acq On : 3-2-21 17:33:36 Operator: LS
Sample : BA27502W08 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

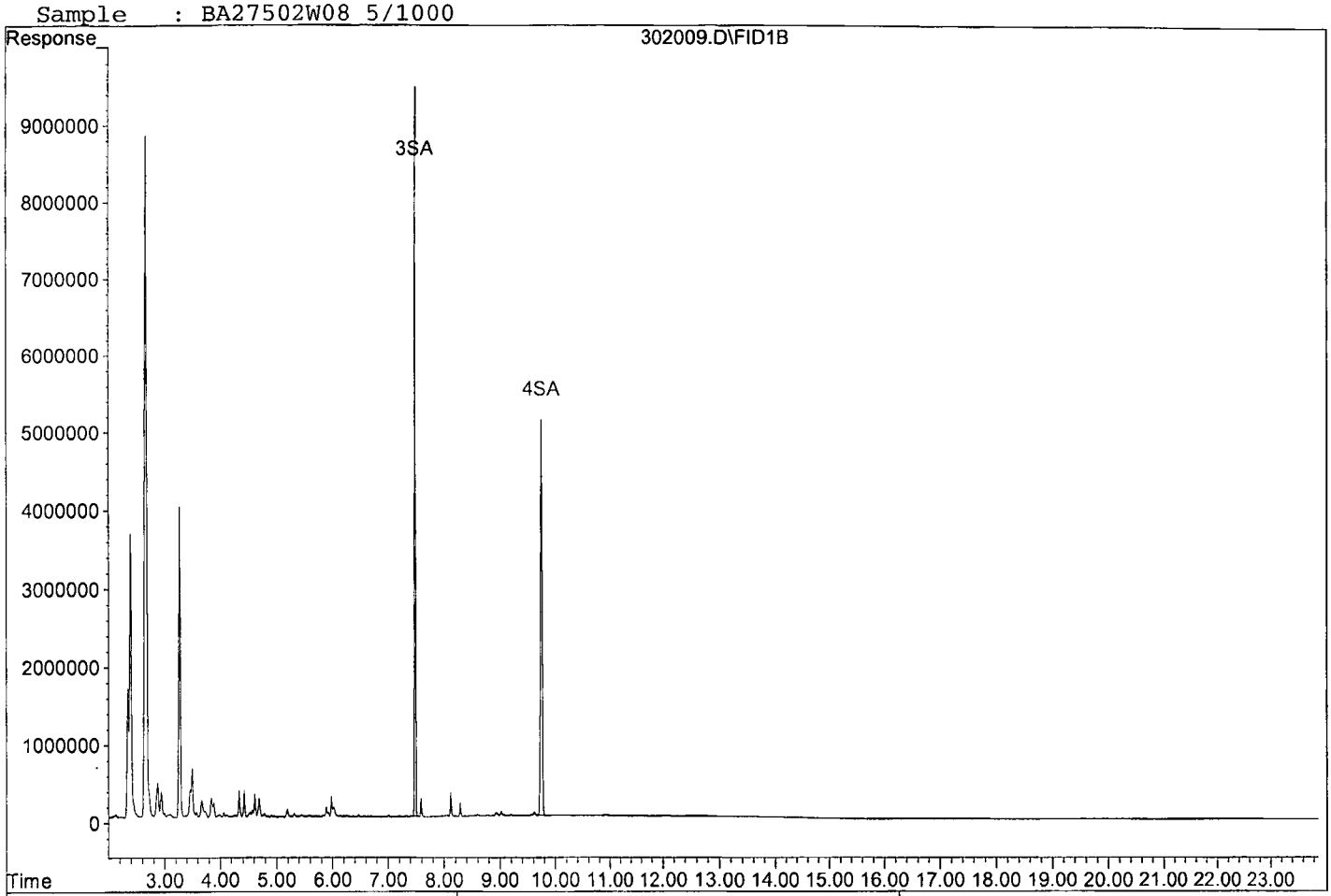
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

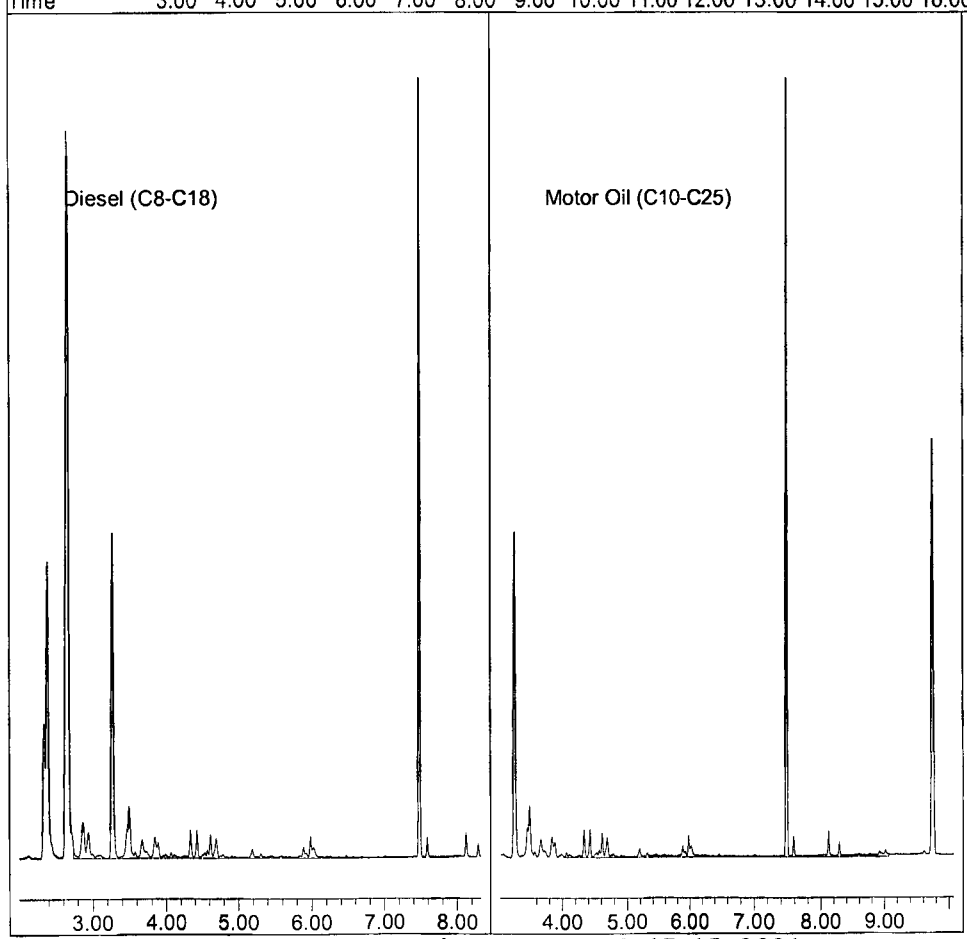
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	111753941	108.290 ppb
Surrogate Spike 150.000		Recovery =	72.19%
4) SA Octacosane(S)	9.75	106556578	131.019 ppb
Surrogate Spike 150.000		Recovery =	87.35%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	205263666	337.442 ppb
2) HBTM Motor Oil (C10-C25)	6.56	90624238	63.901 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210302\302009.D
Sample : BA27502W08 5/1000





302009.D AERH0212.M Thu Mar 25 10:17:15 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307234.D Vial: 34
Acq On : 3-17-21 17:06:15 Operator: BT
Sample : BA27502W08 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 15:44 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

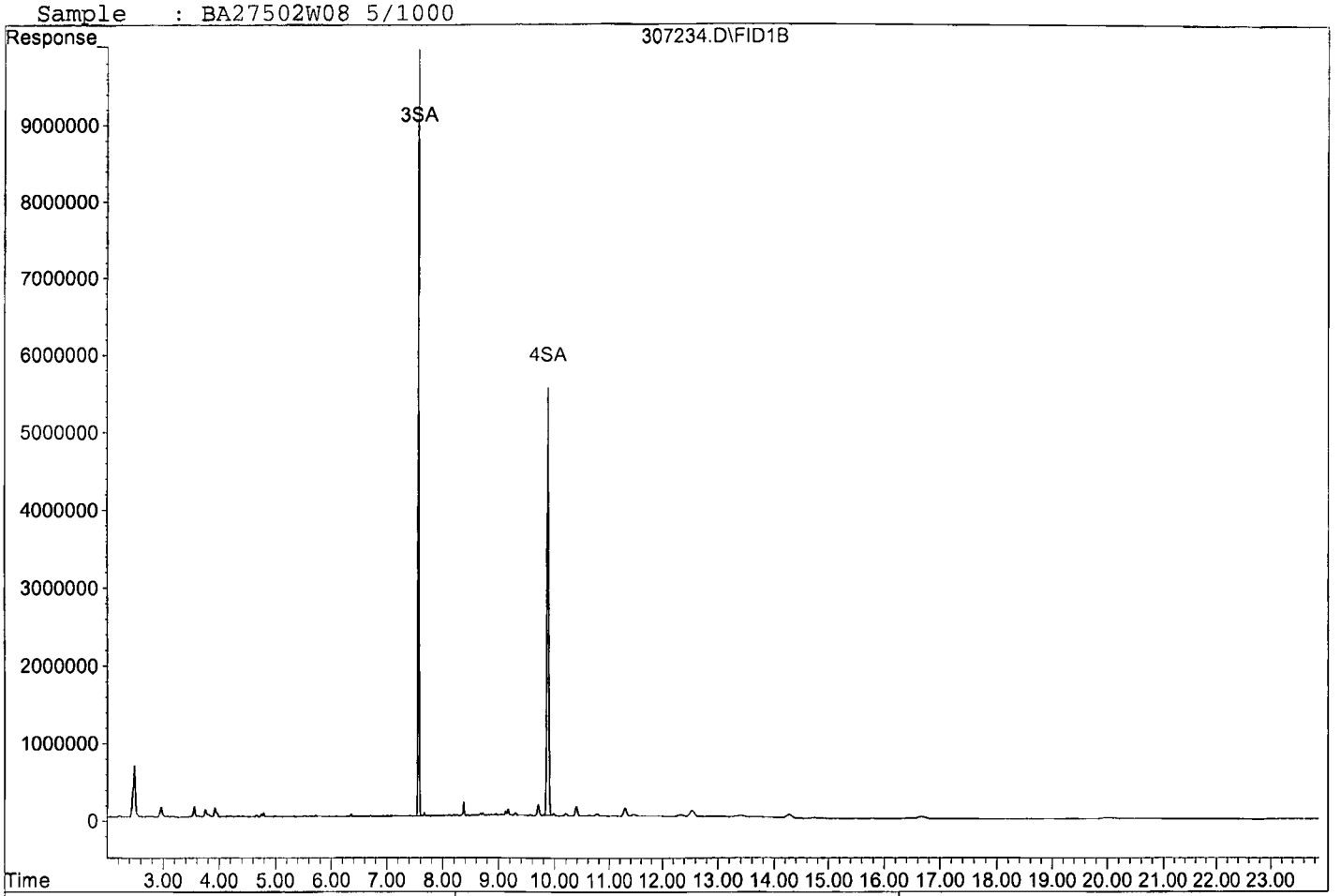
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

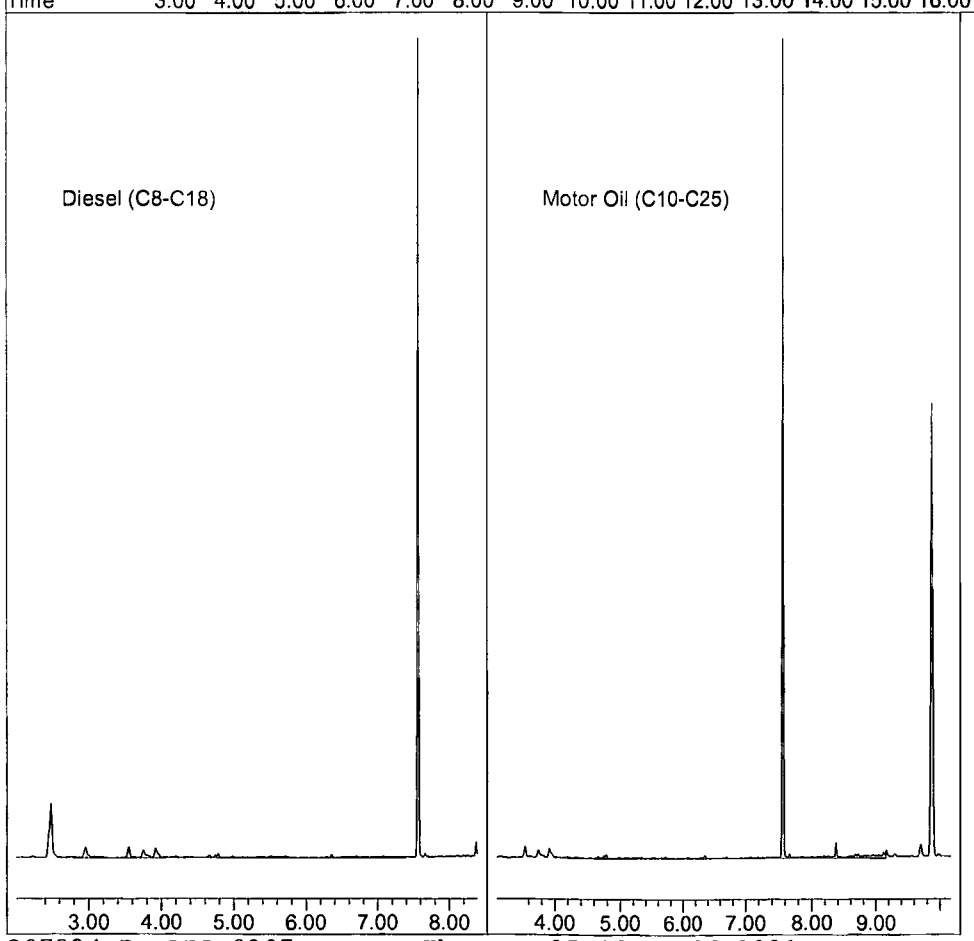
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	115721840	115.130 ppb
Surrogate Spike 150.000		Recovery =	76.75%
4) SA Octacosane(S)	9.88	112161848	144.104 ppb
Surrogate Spike 150.000		Recovery =	96.07%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	39918654	57.615 ppb
2) HBTM Motor Oil (C10-C25)	6.64	46213213	50.796 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307234.D
Sample : BA27502W08 5/1000





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210307\307234.D
Acq On : 3-17-21 17:06:15
Sample : BA27502W08 5/1000
Misc : water
IntFile : events.e
Quant Time: Mar 19 16:13 2021 Quant Results File: DEC0208.RES

Vial: 34
Operator: BT
Inst : Apollo
Multiplr: 5.00

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) SC Decanoic Acid(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 120.000		Recovery =	0.00%		

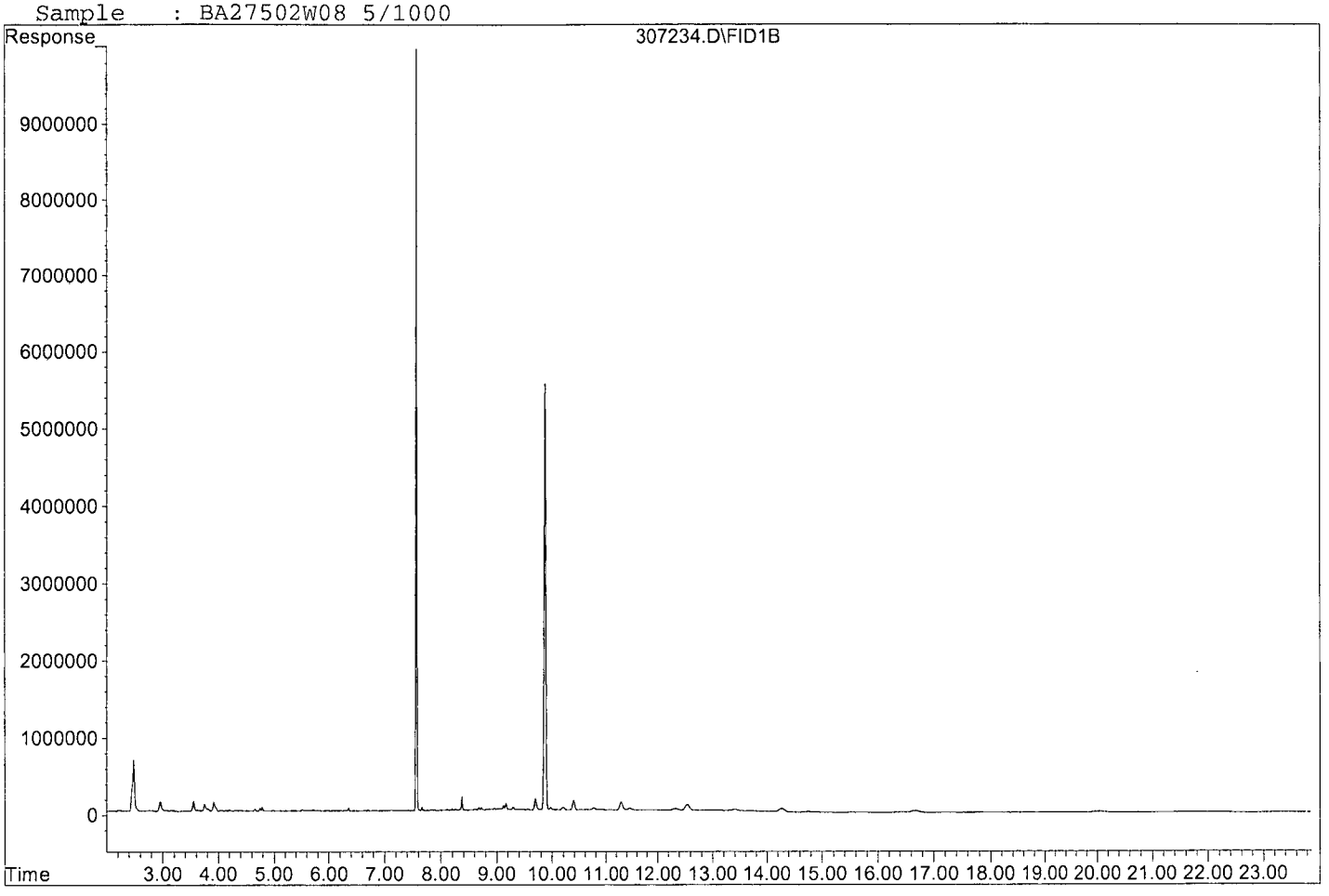
Target Compounds

Target Compounds

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307234.D
Sample : BA27502W08 5/1000



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322066.D Vial: 66
Acq On : 3-23-21 16:18:56 Operator: MB
Sample : BA27502W07 5/990 Inst : Apollo
Misc : water Multiplr: 5.05
IntFile : events.e
Quant Time: Mar 26 9:29 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

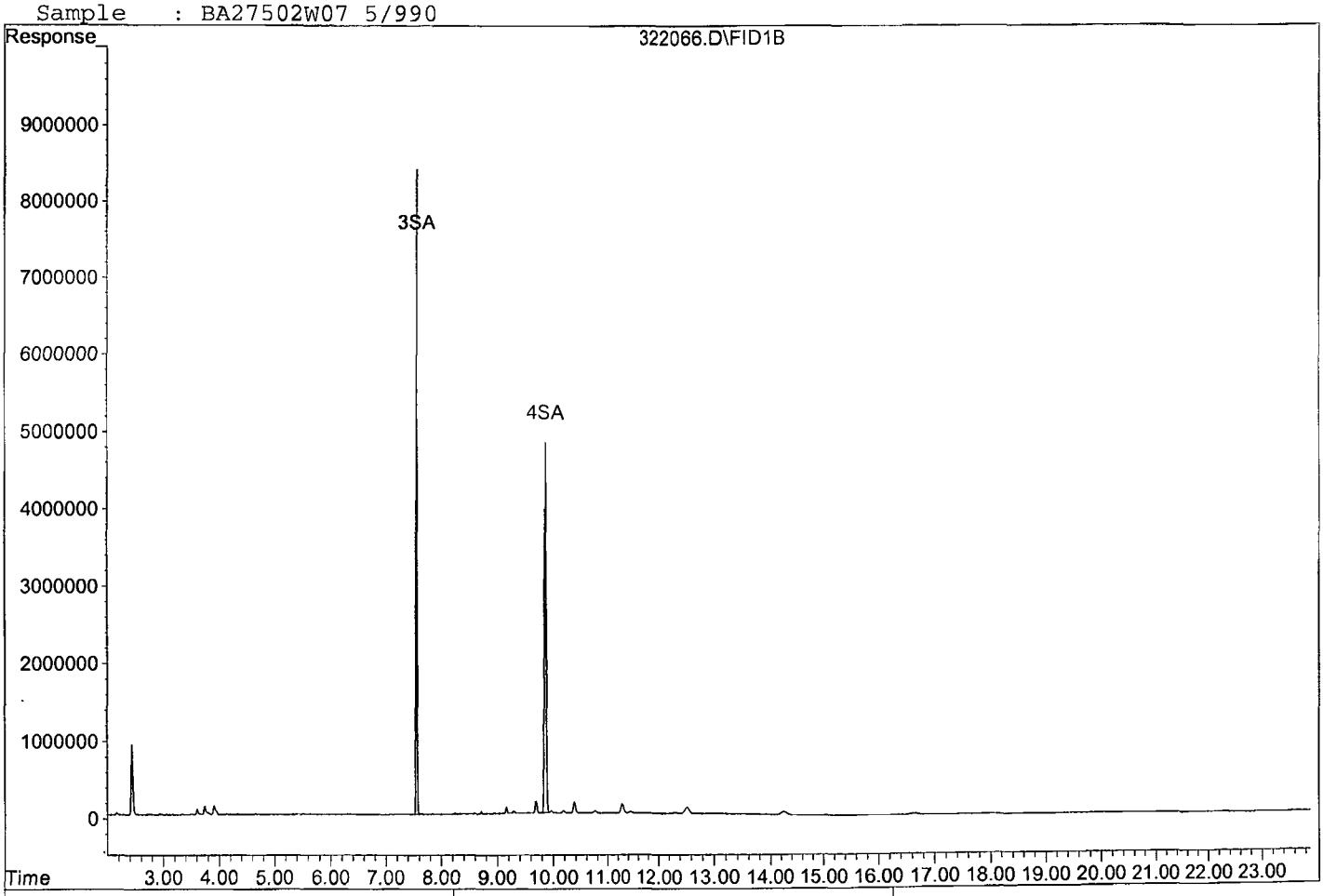
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

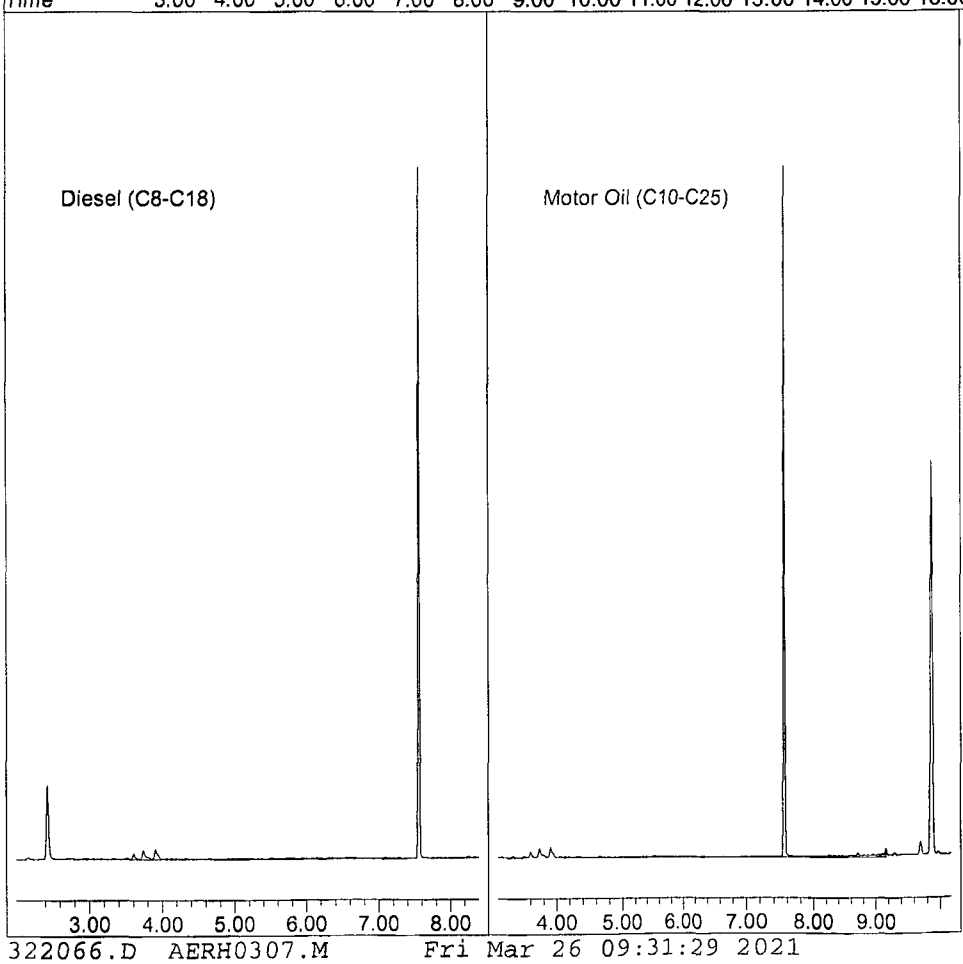
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	101723525	102.226 ppb
Surrogate Spike 151.515		Recovery =	67.47%
4) SA Octacosane(S)	9.87	105274049	136.621 ppb
Surrogate Spike 151.515		Recovery =	90.17%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	30949600	45.121 ppb
2) HBTM Motor Oil (C10-C25)	6.64	35551700	39.472 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\210322\322066.D
Sample : BA27502W07 5/990





322066.D AERH0307.M Fri Mar 26 09:31:29 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210302\302010.D Vial: 10
Acq On : 3-2-21 18:01:52 Operator: LS
Sample : BA27504W08 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

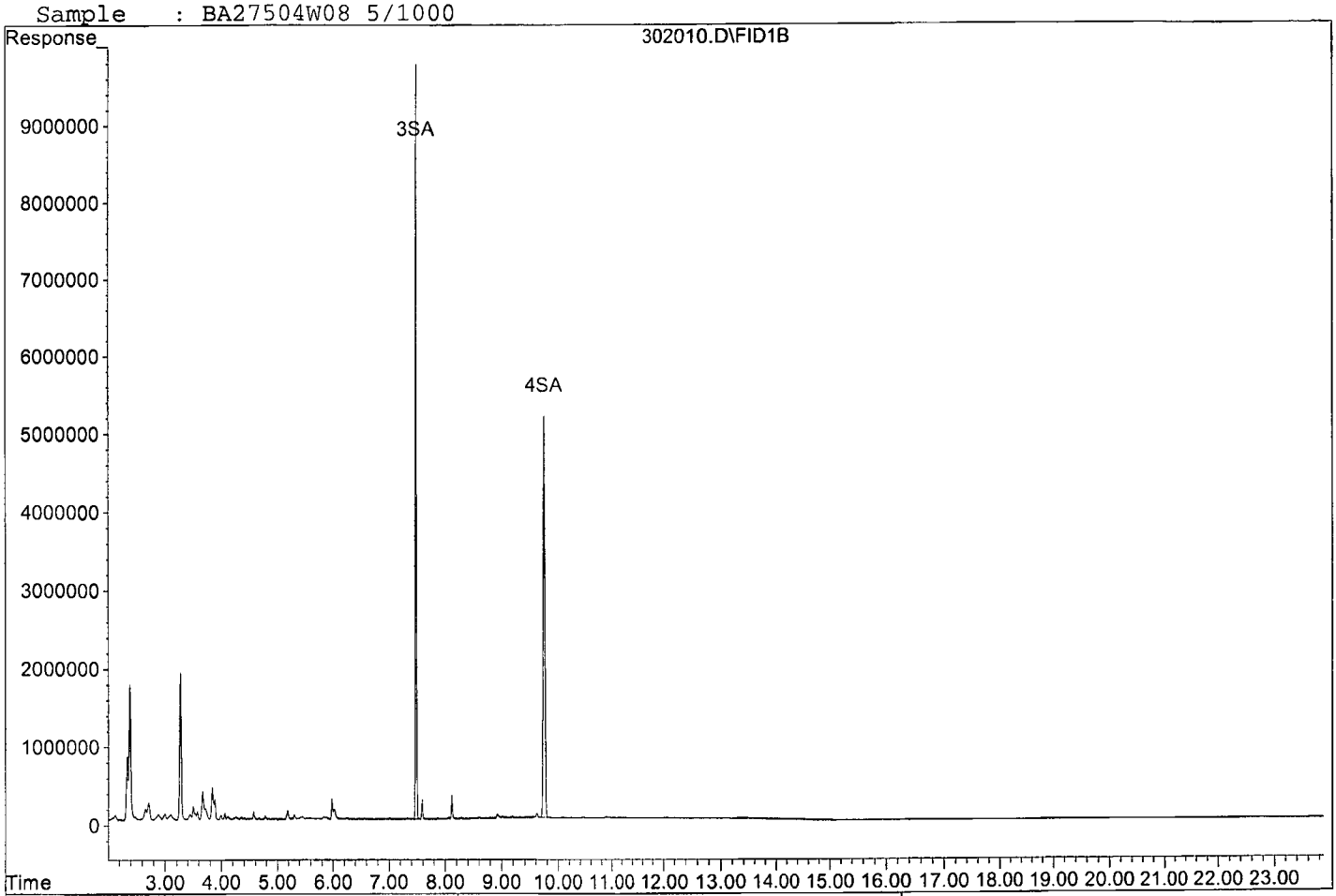
Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

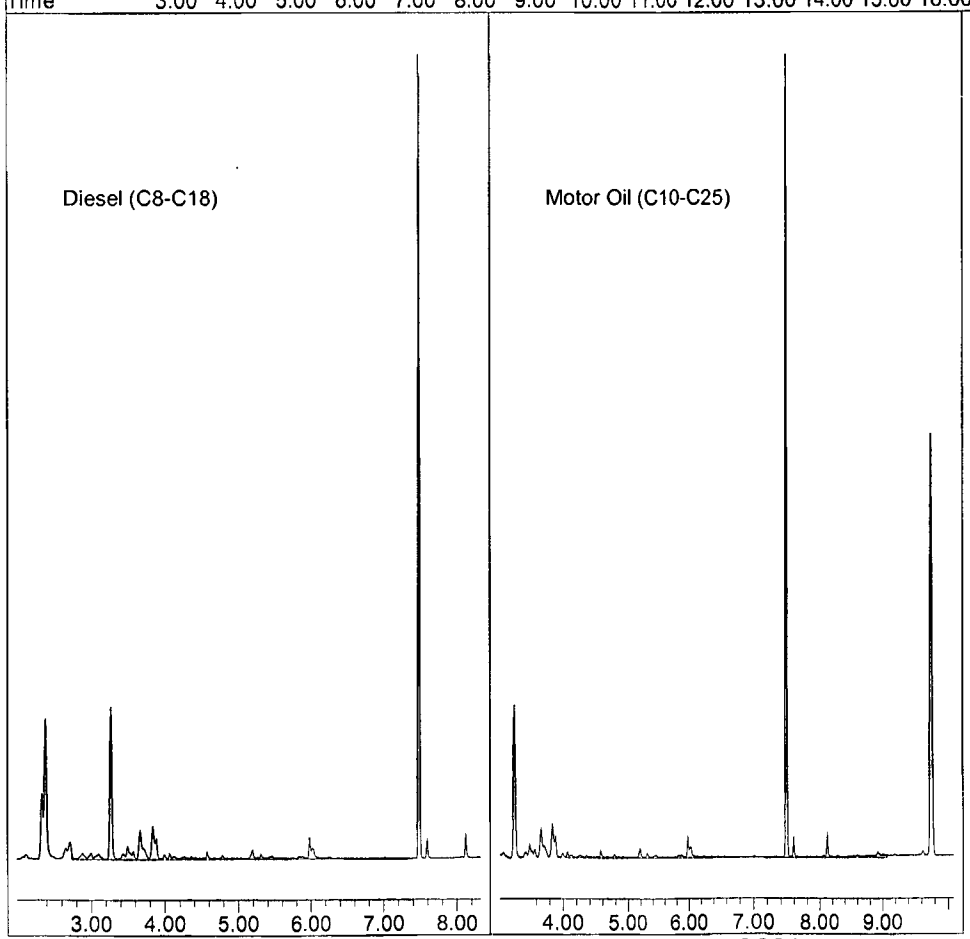
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	117205111	113.572 ppb
Surrogate Spike 150.000		Recovery =	75.71%
4) SA Octacosane(S)	9.75	106703977	131.200 ppb
Surrogate Spike 150.000		Recovery =	87.47%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	121693902	187.368 ppb
2) HBTM Motor Oil (C10-C25)	6.56	60146794	27.061 ppb

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

Data File: G:\APOLLO\DATA\210302\302010.D
Sample : BA27504W08 5/1000





302010.D AERH0212.M Thu Mar 25 10:17:21 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307235.D Vial: 35
Acq On : 3-17-21 17:34:52 Operator: BT
Sample : BA27504W08 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 15:45 2021 Quant Results File: AERH0307.RES

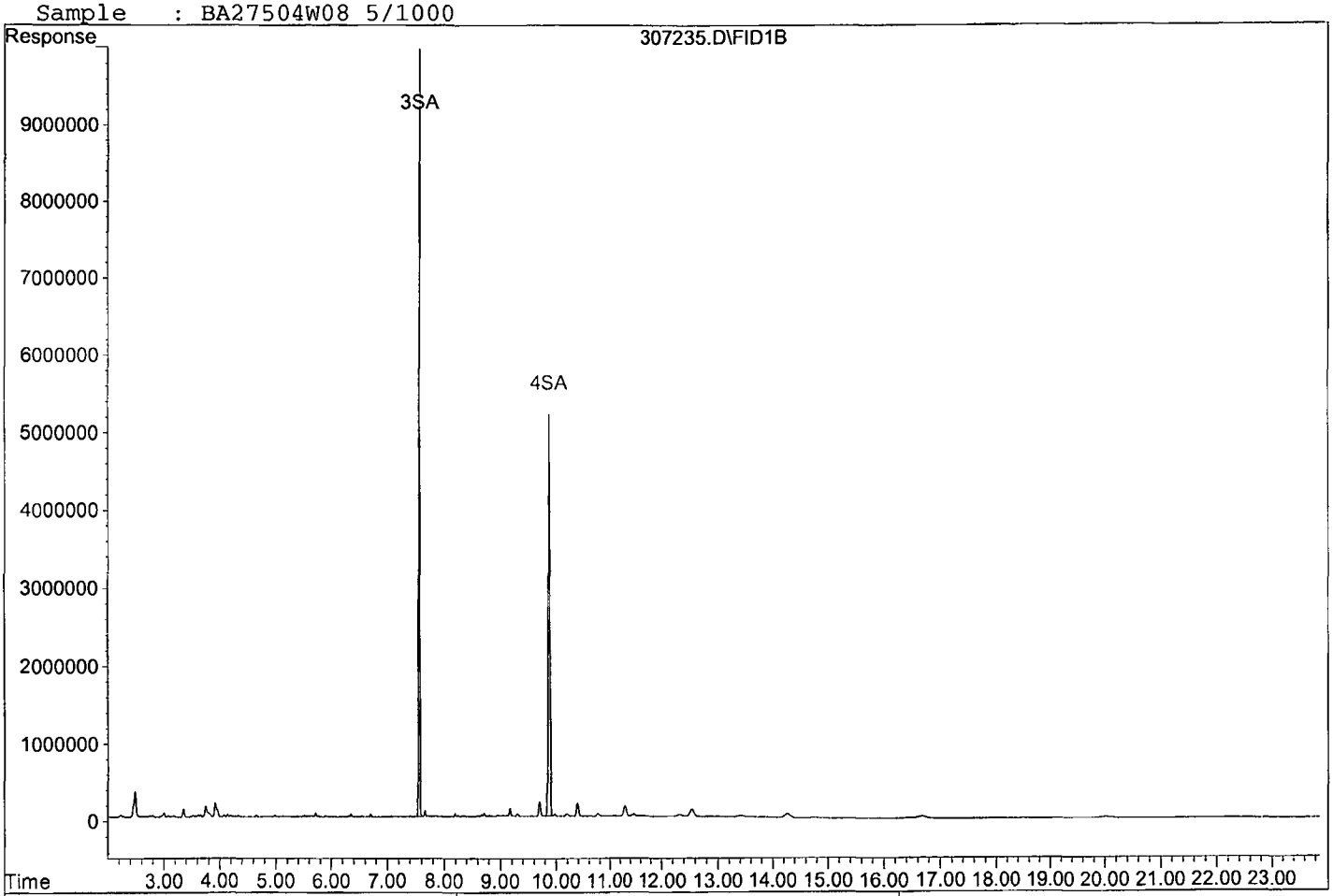
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

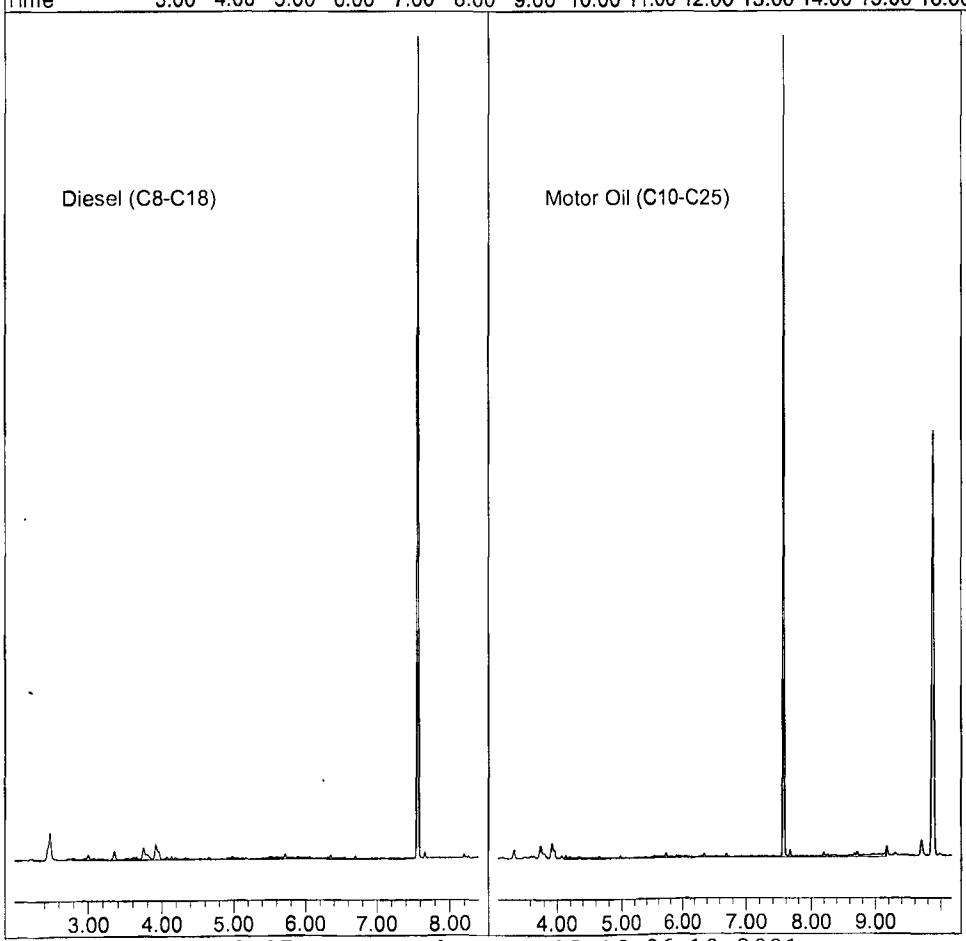
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	117329319	116.730 ppb
Surrogate Spike 150.000		Recovery =	77.82%
4) SA Octacosane(S)	9.88	109228226	140.334 ppb
Surrogate Spike 150.000		Recovery =	93.56%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	46520482	67.144 ppb
2) HBTM Motor Oil (C10-C25)	6.64	47357957	52.055 ppb

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

Data File: G:\APOLLO\DATA\210307\307235.D
Sample : BA27504W08 5/1000





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210307\307235.D Vial: 35
Acq On : 3-17-21 17:34:52 Operator: BT
Sample : BA27504W08 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 16:13 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) SC Decanoic Acid(S)	0.00	0	N.D. ppb d
Surrogate Spike 120.000		Recovery =	0.00%

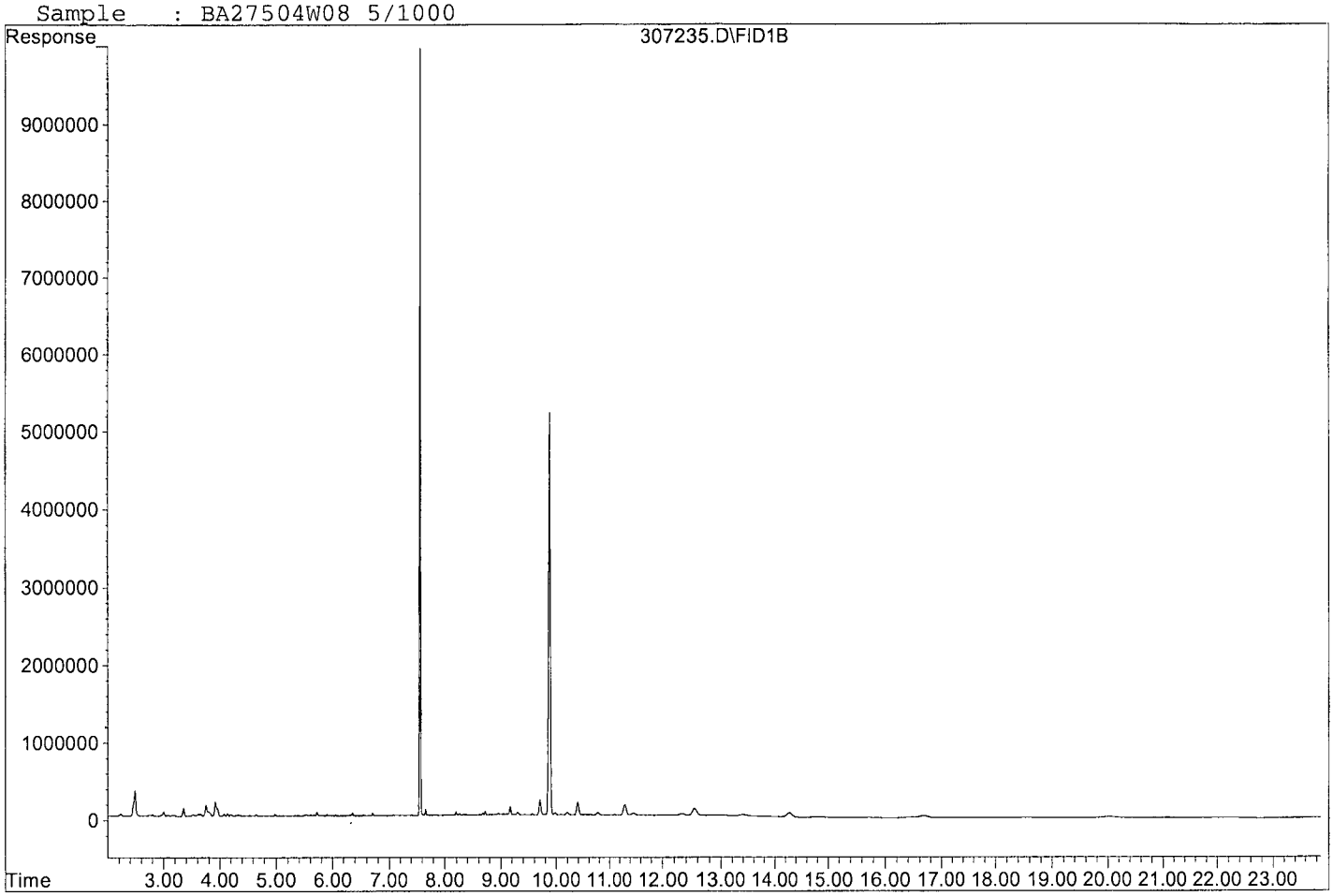
Target Compounds

Target Compounds

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307235.D
Sample : BA27504W08 5/1000



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322067.D Vial: 67
Acq On : 3-23-21 16:47:46 Operator: MB
Sample : BA27504W07 5/1010 Inst : Apollo
Misc : water Multiplr: 4.95
IntFile : events.e
Quant Time: Mar 26 9:29 2021 Quant Results File: AERH0307.RES

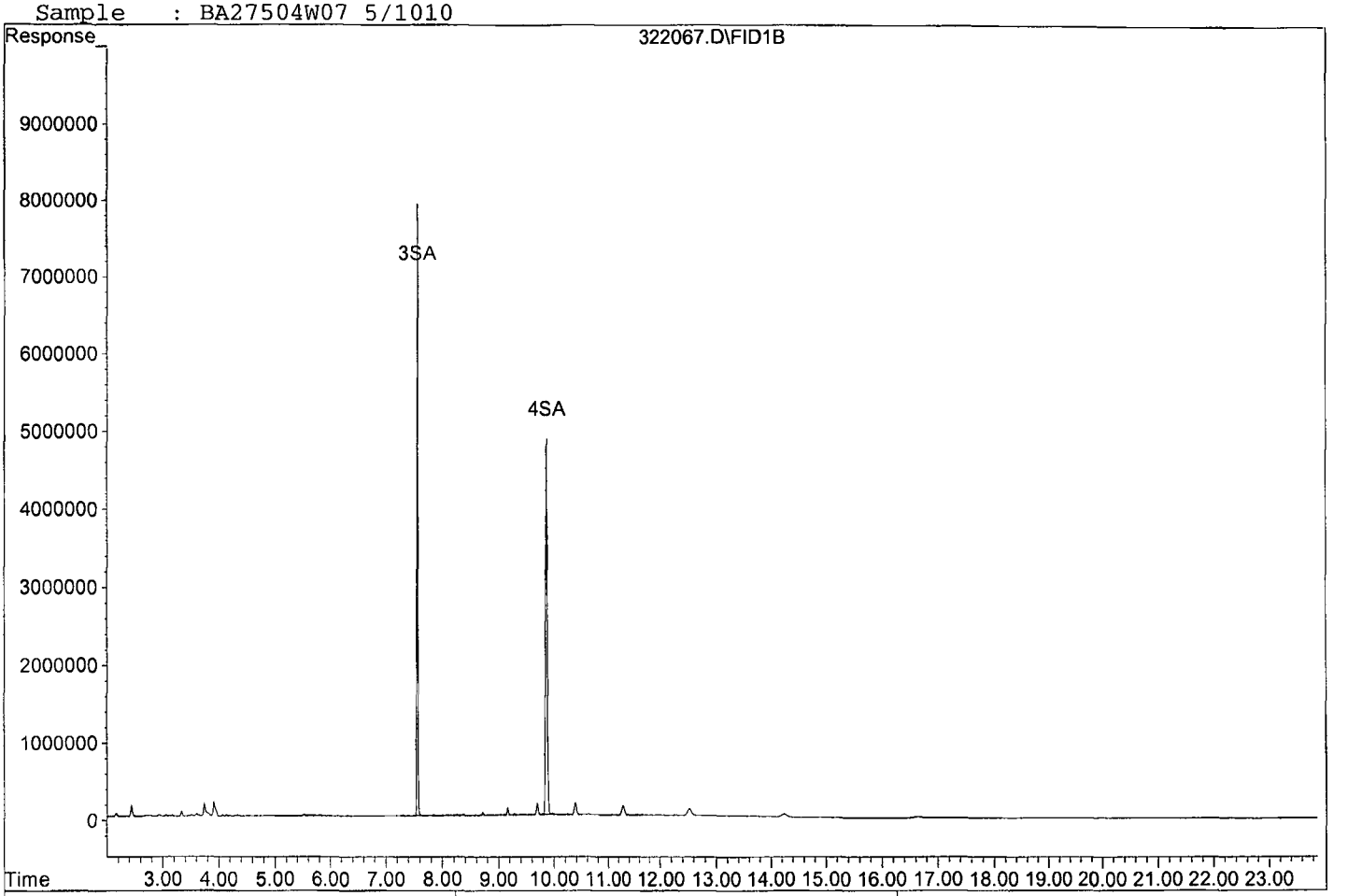
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

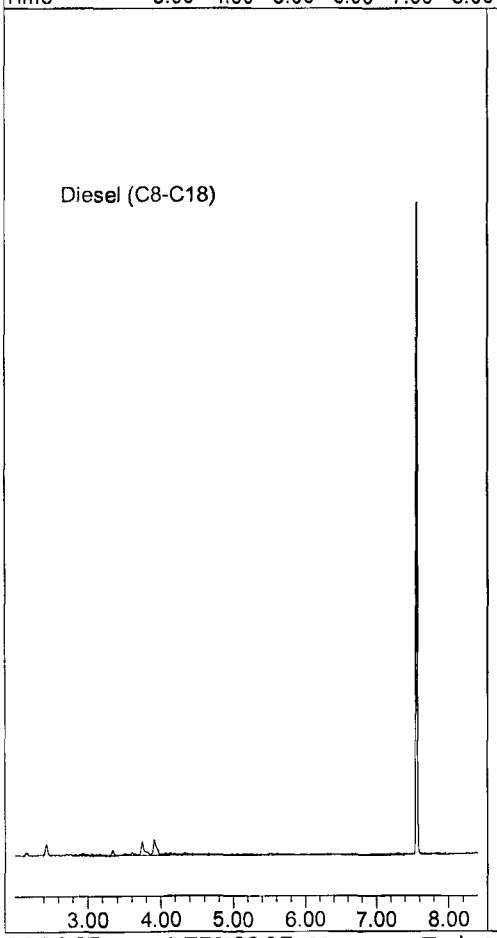
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

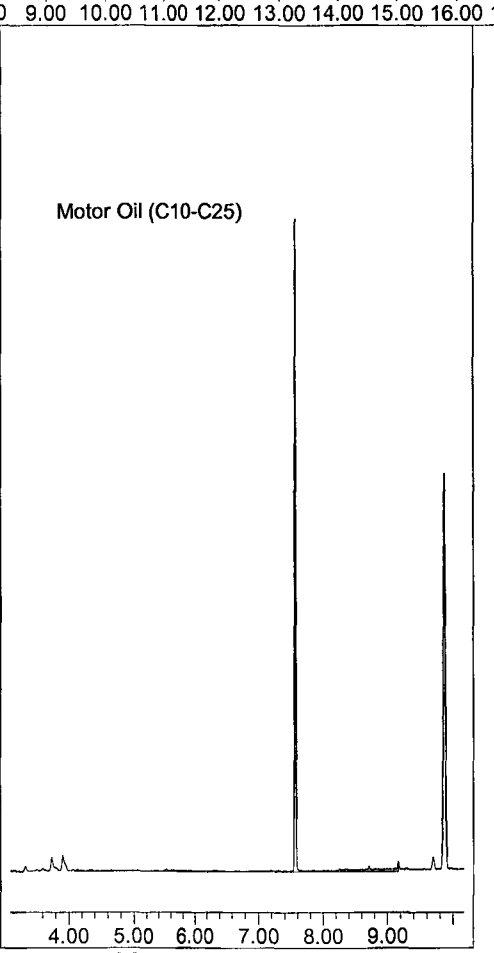
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	101096698	99.584 ppb
Surrogate Spike 148.515		Recovery =	67.05%
4) SA Octacosane(S)	9.87	104454951	132.873 ppb
Surrogate Spike 148.515		Recovery =	89.47%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	37710401	53.889 ppb
2) HBTM Motor Oil (C10-C25)	6.64	40424734	43.994 ppb

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

Data File: G:\APOLLO\DATA\210322\322067.D
Sample : BA27504W07 5/1010







322067.D AERH0307.M Fri Mar 26 09:31:33 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210302\302004.D Vial: 4
Acq On : 3-2-21 15:11:46 Operator: LS
Sample : 210225A BLK 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

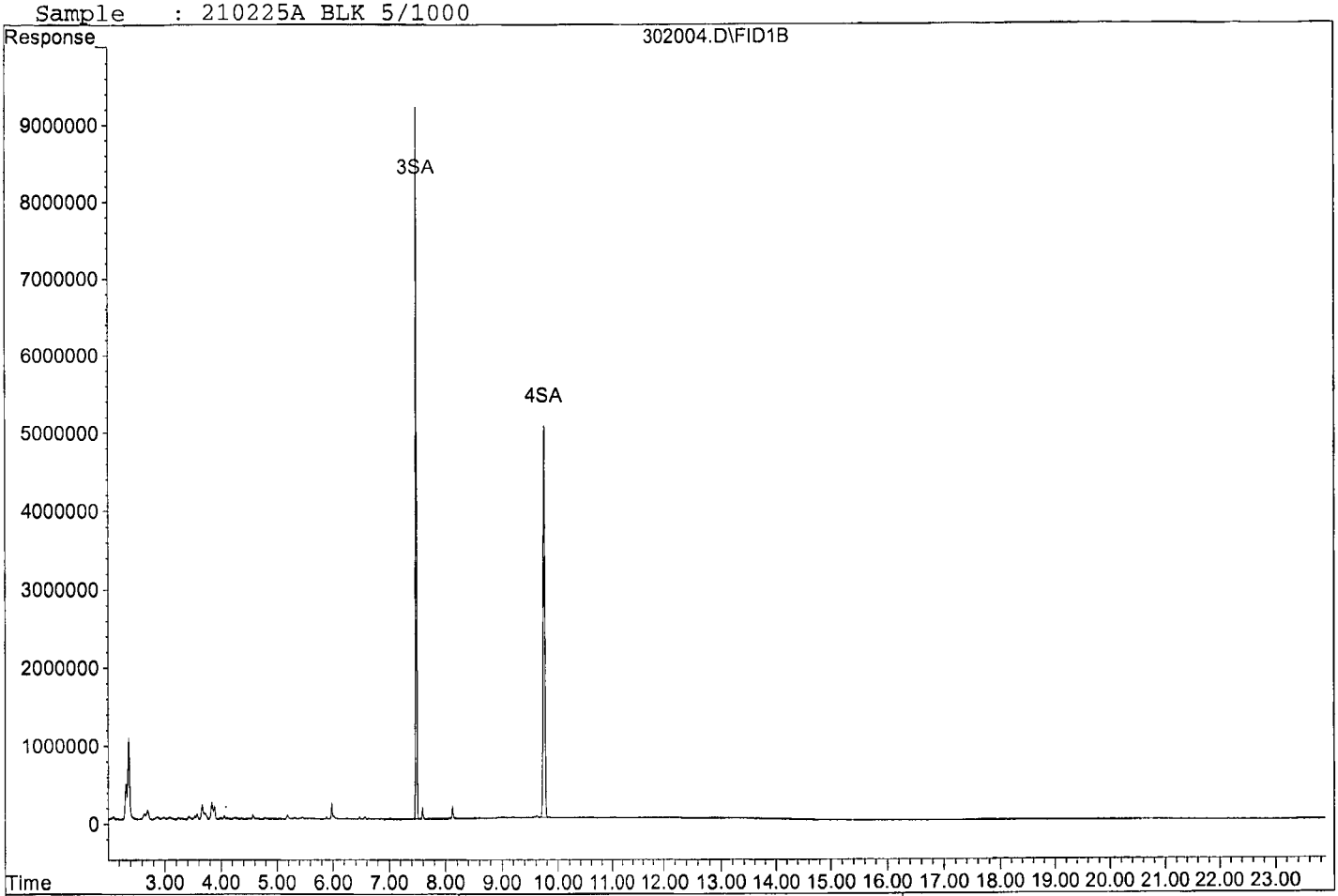
Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

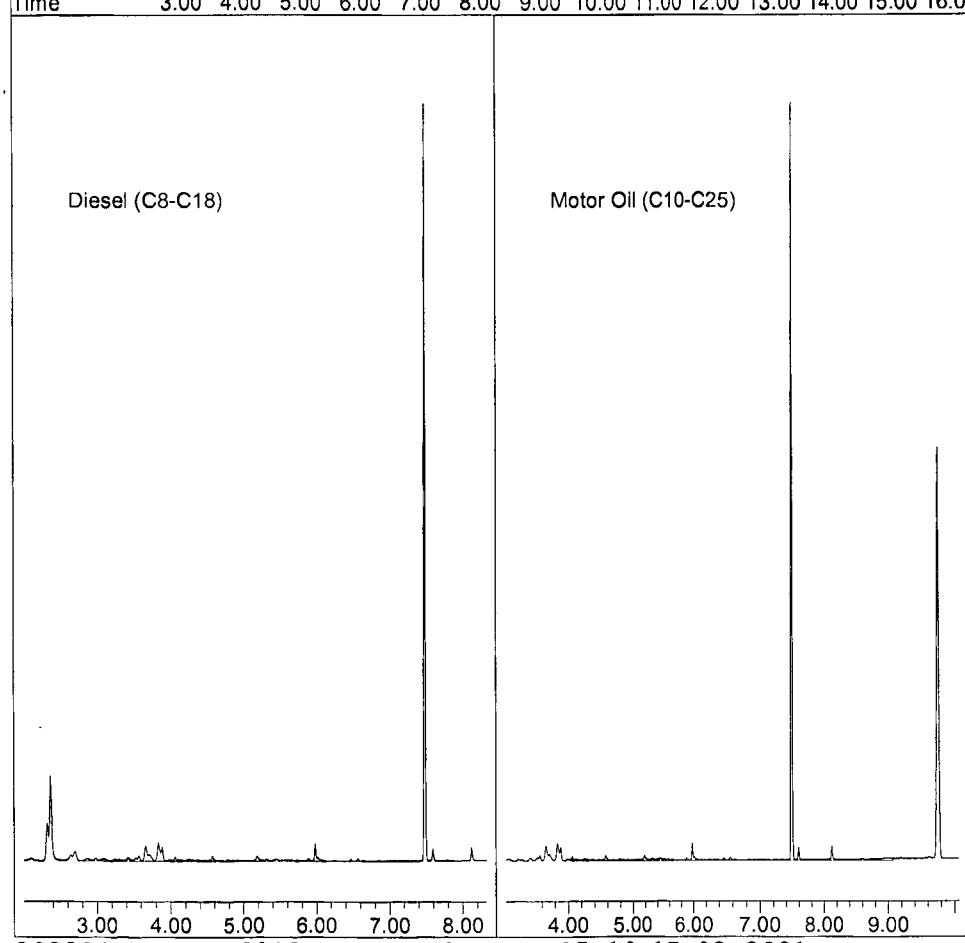
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	113177506	109.669 ppb
Surrogate Spike 150.000		Recovery =	73.11%
4) SA Octacosane(S)	9.75	103737351	127.552 ppb
Surrogate Spike 150.000		Recovery =	85.03%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	51214328	60.801 ppb
2) HBTM Motor Oil (C10-C25)	6.56	45090901	8.862 ppb

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

Data File: G:\APOLLO\DATA\210302\302004.D
Sample : 210225A BLK 5/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307229.D Vial: 29
Acq On : 3-17-21 14:42:41 Operator: BT
Sample : 210225A BLK 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 16:04 2021 Quant Results File: AERH0307.RES

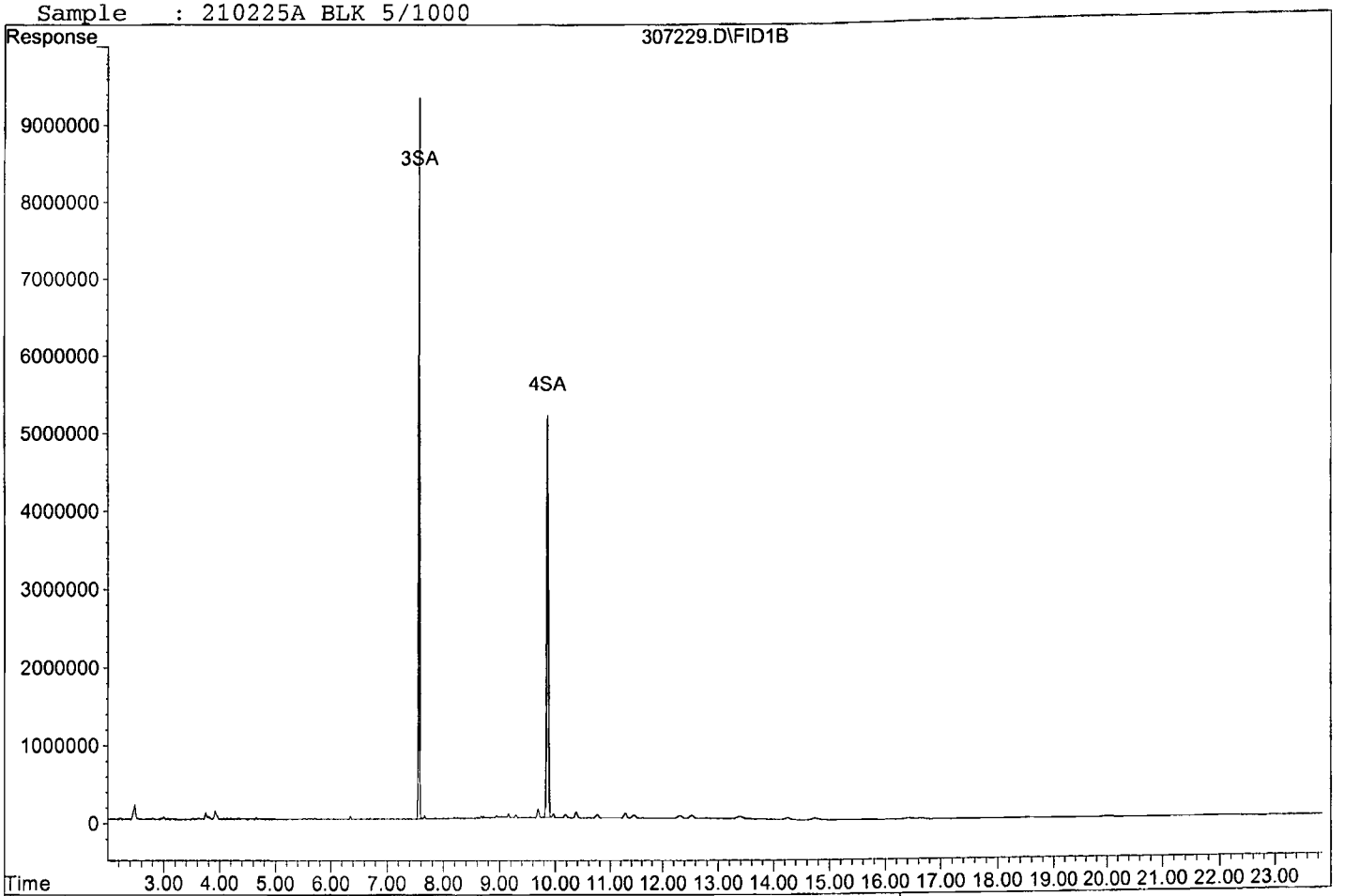
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

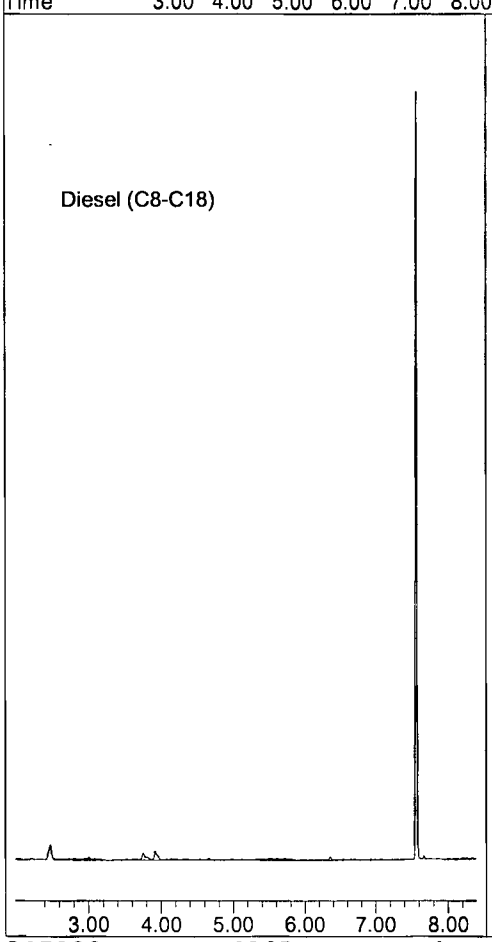
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

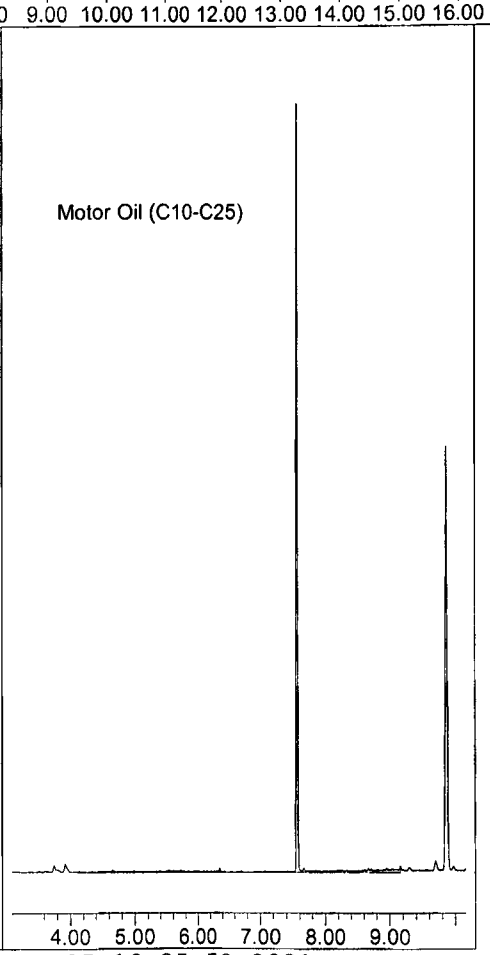
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	113712701	113.131 ppb
Surrogate Spike 150.000		Recovery =	75.42%
4) SA Octacosane(S)	9.87	105202986	135.163 ppb
Surrogate Spike 150.000		Recovery =	90.11%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	31127860	44.927 ppb
2) HBTM Motor Oil (C10-C25)	6.64	42090204	46.264 ppb

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

Data File: G:\APOLLO\DATA\210307\307229.D
Sample : 210225A BLK 5/1000







Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210307\307229.D
Acq On : 3-17-21 14:42:41
Sample : 210225A BLK 5/1000
Misc : water
IntFile : events.e
Quant Time: Mar 19 16:12 2021 Quant Results File: DEC0208.RES

Vial: 29
Operator: BT
Inst : Apollo
Multiplr: 5.00

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) SC Decanoic Acid(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 120.000		Recovery =	0.00%		

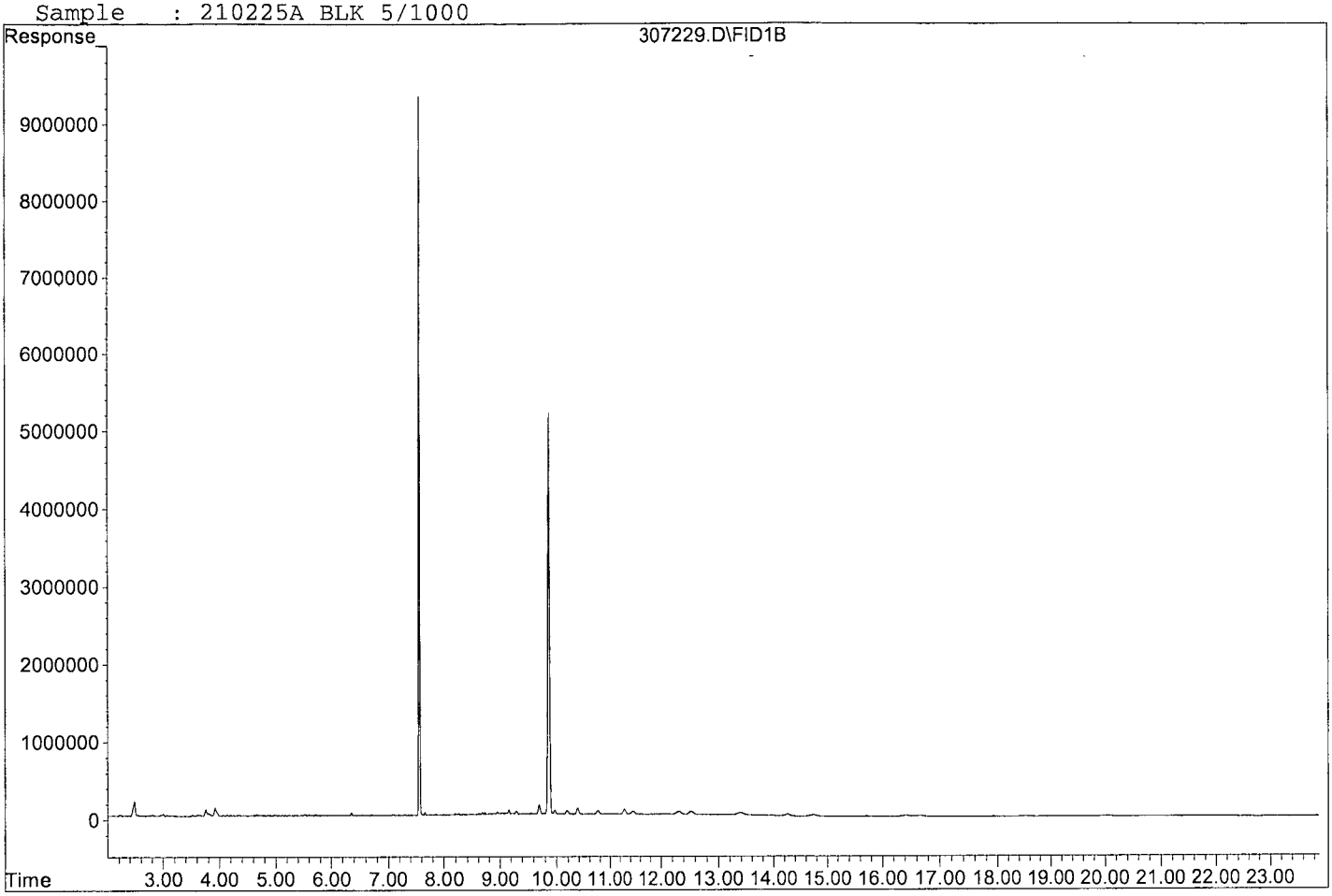
Target Compounds

Target Compounds

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307229.D
Sample : 210225A BLK 5/1000



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322061.D Vial: 61
Acq On : 3-23-21 13:54:59 Operator: MB
Sample : 210317A BLK 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 26 9:29 2021 Quant Results File: AERH0307.RES

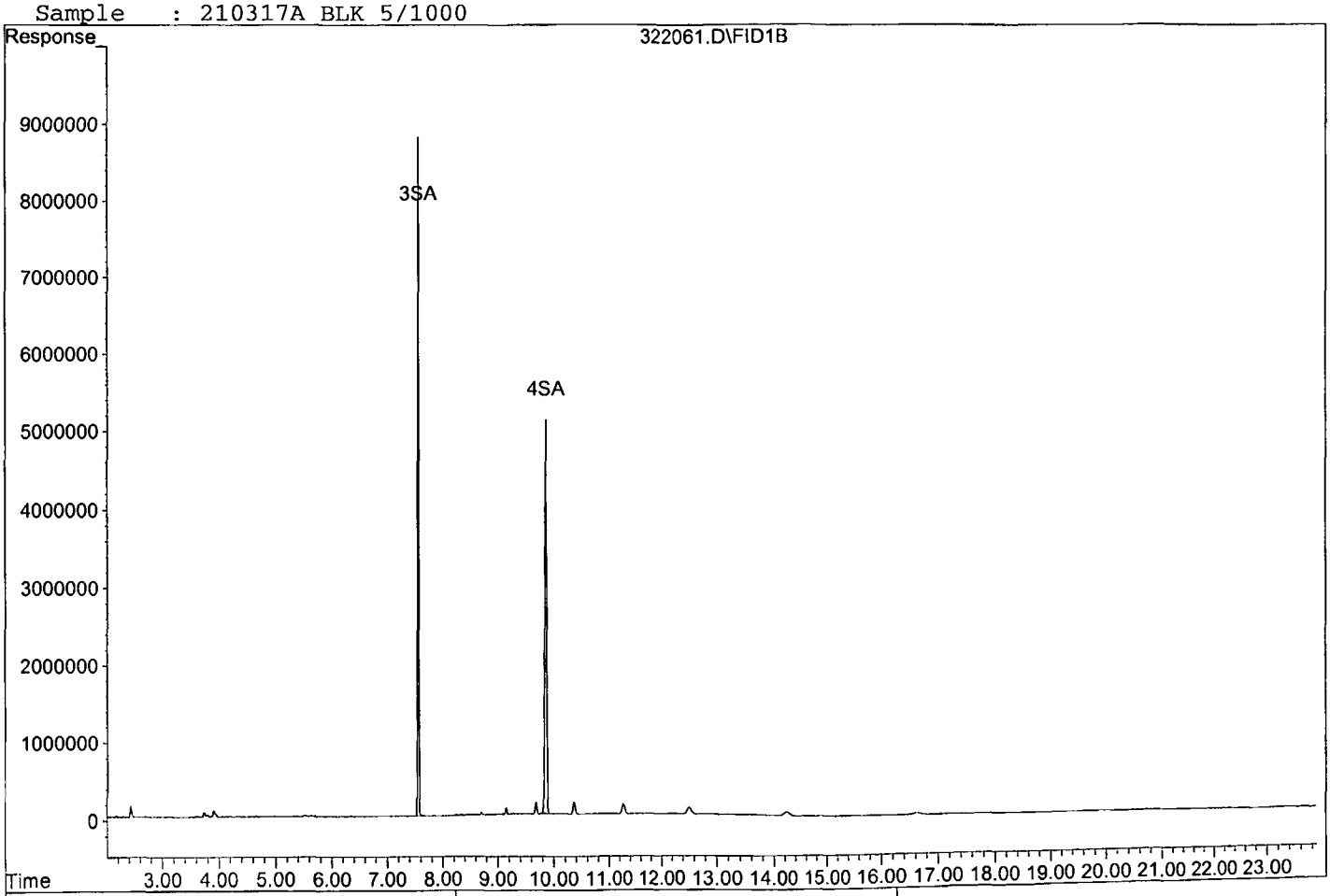
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

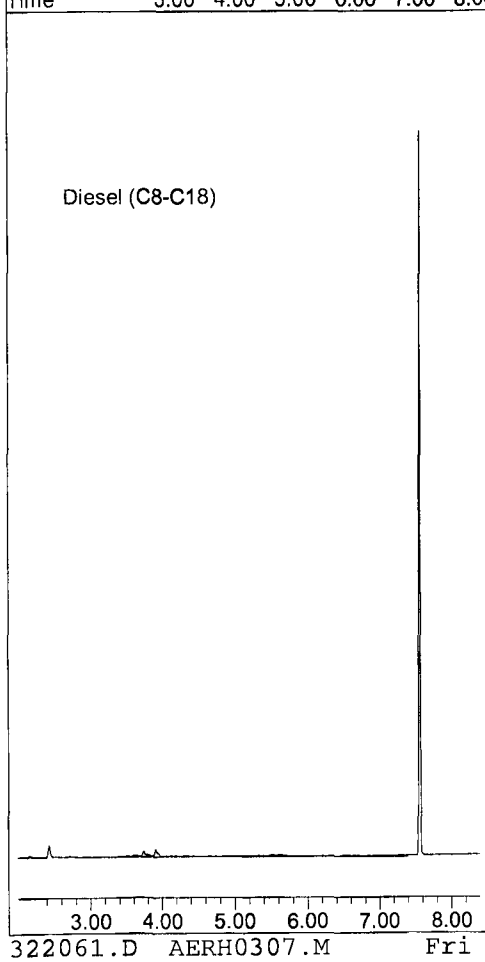
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

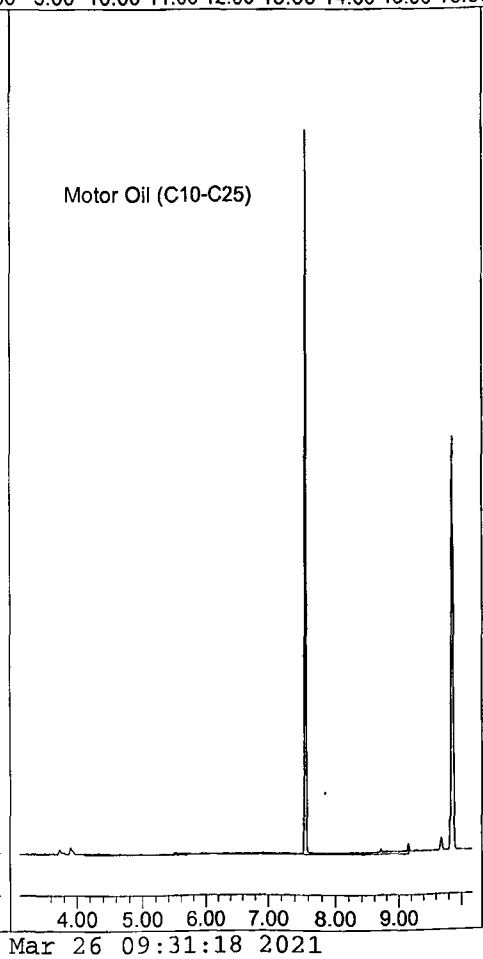
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	104383810	103.850 ppb
Surrogate Spike 150.000		Recovery =	69.23%
4) SA Octacosane(S)	9.86	108052711	138.824 ppb
Surrogate Spike 150.000		Recovery =	92.55%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	27555524	39.771 ppb
2) HBTM Motor Oil (C10-C25)	6.64	41570889	45.694 ppb

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

Data File: G:\APOLLO\DATA\210322\322061.D
Sample : 210317A BLK 5/1000







322061.D AERH0307.M Fri Mar 26 09:31:18 2021

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210302\302005.D Vial: 5
Acq On : 3-2-21 15:40:08 Operator: LS
Sample : 210225A LCS-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 3 13:30 2021 Quant Results File: AERH0212.RES

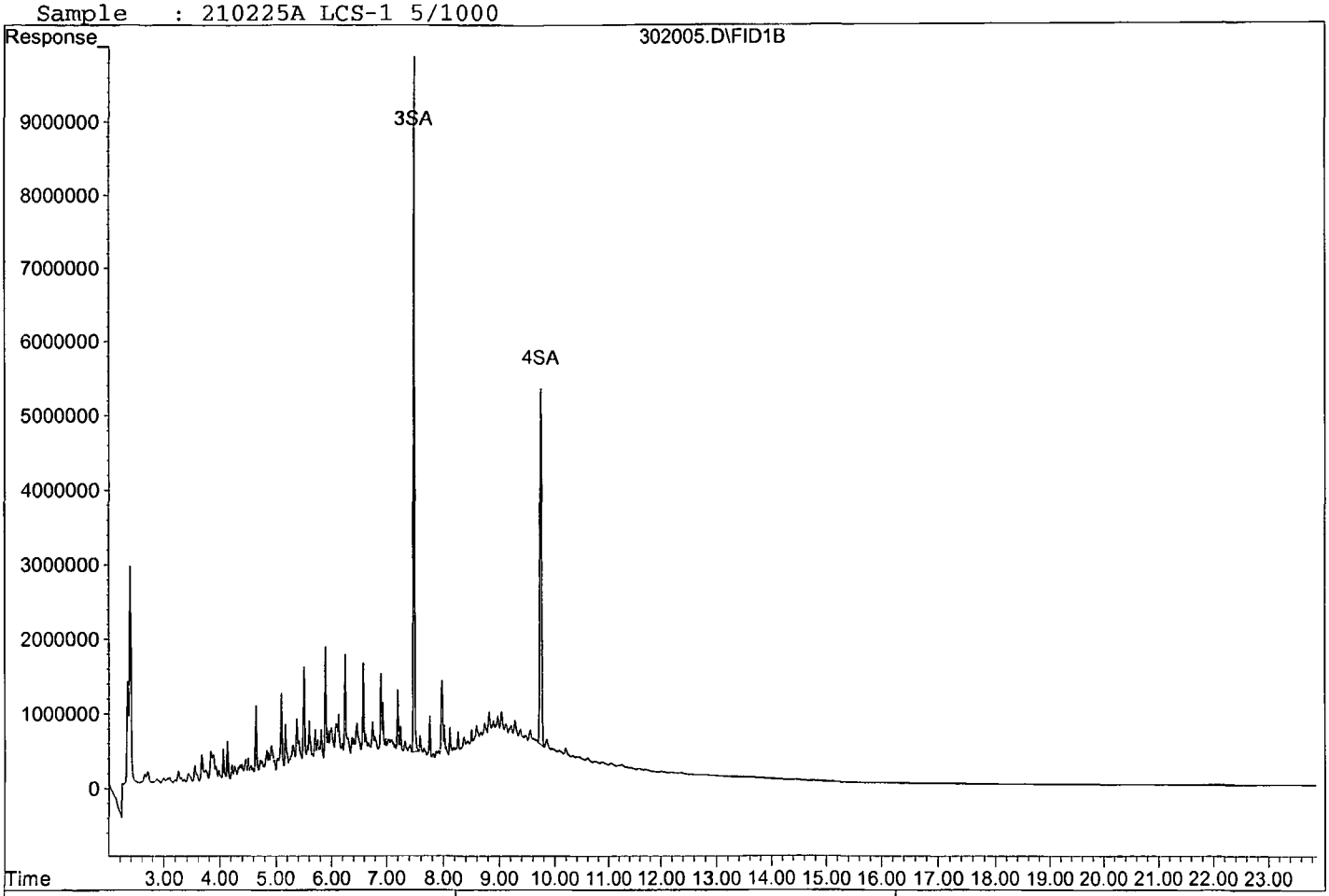
Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

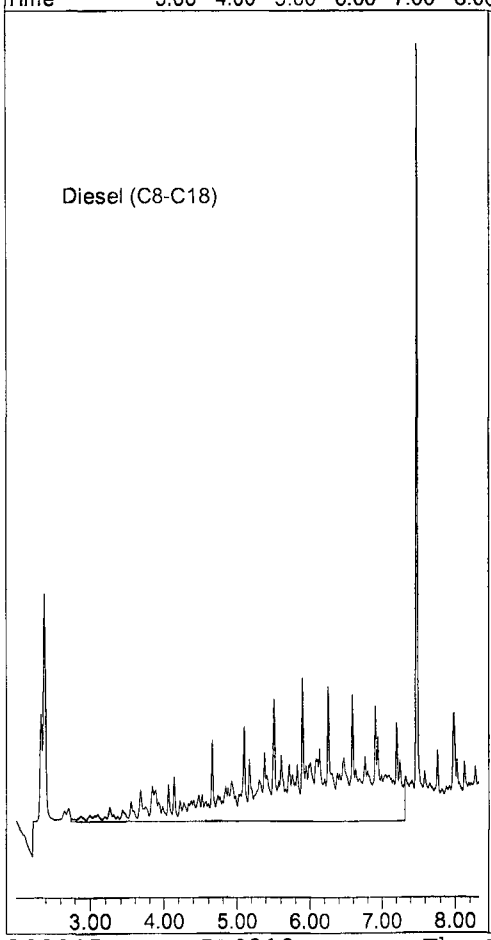
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

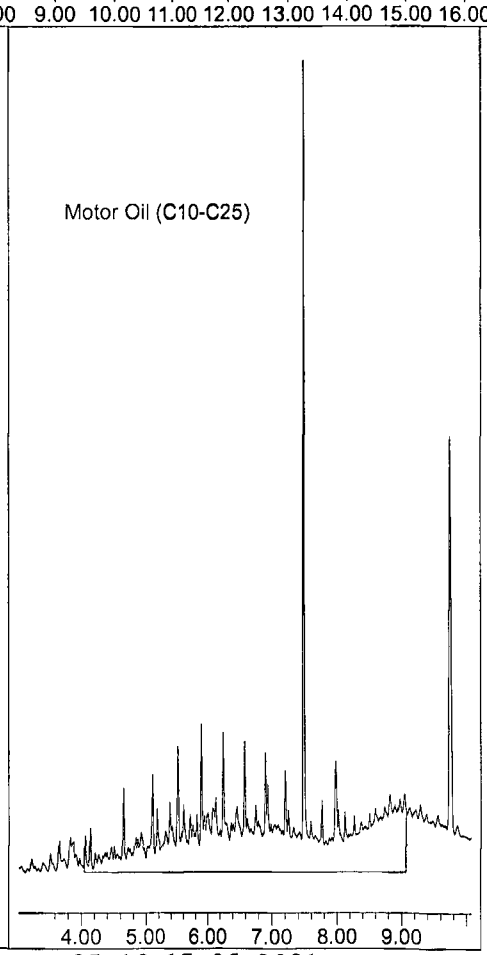
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	125621426	121.727 ppb
Surrogate Spike 150.000		Recovery =	81.15%
4) SA Octacosane(S)	9.75	100693485	123.810 ppb
Surrogate Spike 150.000		Recovery =	82.54%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	1082728940	1913.192 ppb
2) HBTM Motor Oil (C10-C25)	6.56	1546230109	1823.383 ppb

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

Data File: G:\APOLLO\DATA\210302\302005.D
Sample : 210225A LCS-1 5/1000







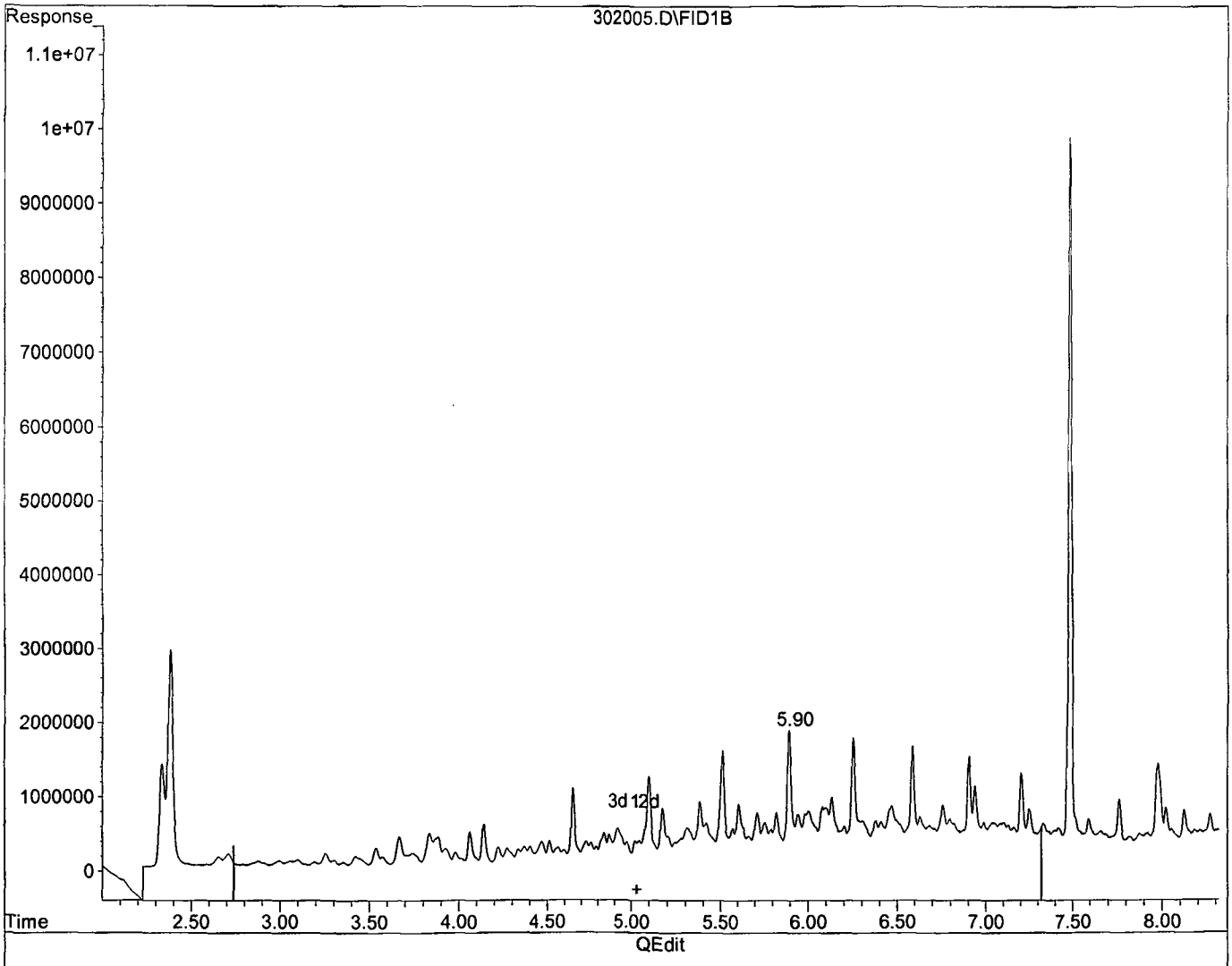
302005.D AERH0212.M Thu Mar 25 10:17:06 2021

Quantitation Report

Data File : G:\APOLLO\DATA\210302\302005.D
Acq On : 3-2-21 15:40:08
Sample : 210225A LCS-1 5/1000
Misc : water
IntFile : events.e
Quant Time: Mar 3 12:18 2021 Quant Results File: AERH0212.RES

Vial: 5
Operator: LS
Inst : Apollo
Multiplr: 5.00

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration



(1) Diesel (C8-C18) (HATM)

5.03min 4157.646ppb m

response 2332565646

(+) = Expected Retention Time

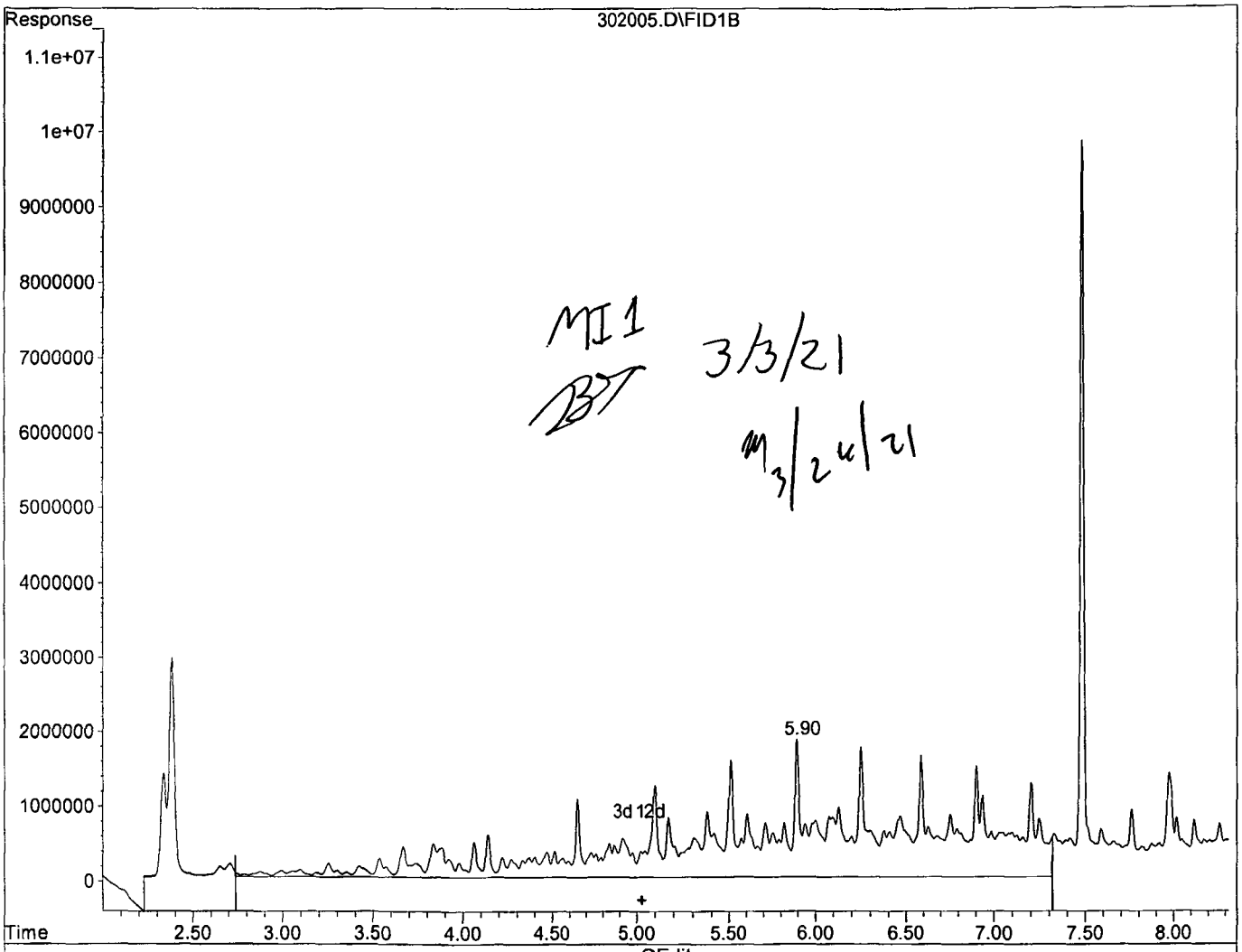
302005.D AERH0212.M Wed Mar 03 12:30:31 2021

Quantitation Report

Data File : G:\APOLLO\DATA\210302\302005.D
Acq On : 3-2-21 15:40:08
Sample : 210225A LCS-1 5/1000
Misc : water
IntFile : events.e
Quant Time: Mar 3 12:18 2021 Quant Results File: AERH0212.RES

Vial: 5
Operator: LS
Inst : Apollo
Multiplr: 5.00

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration



(1) Diesel (C8-C18) (HATM)

5.03min 1913.192ppb m

response 1082728940

(+) = Expected Retention Time

302005.D AERH0212.M Wed Mar 03 12:30:59 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307230.D Vial: 30
Acq On : 3-17-21 15:11:23 Operator: BT
Sample : 210225A LCS-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 15:44 2021 Quant Results File: AERH0307.RES

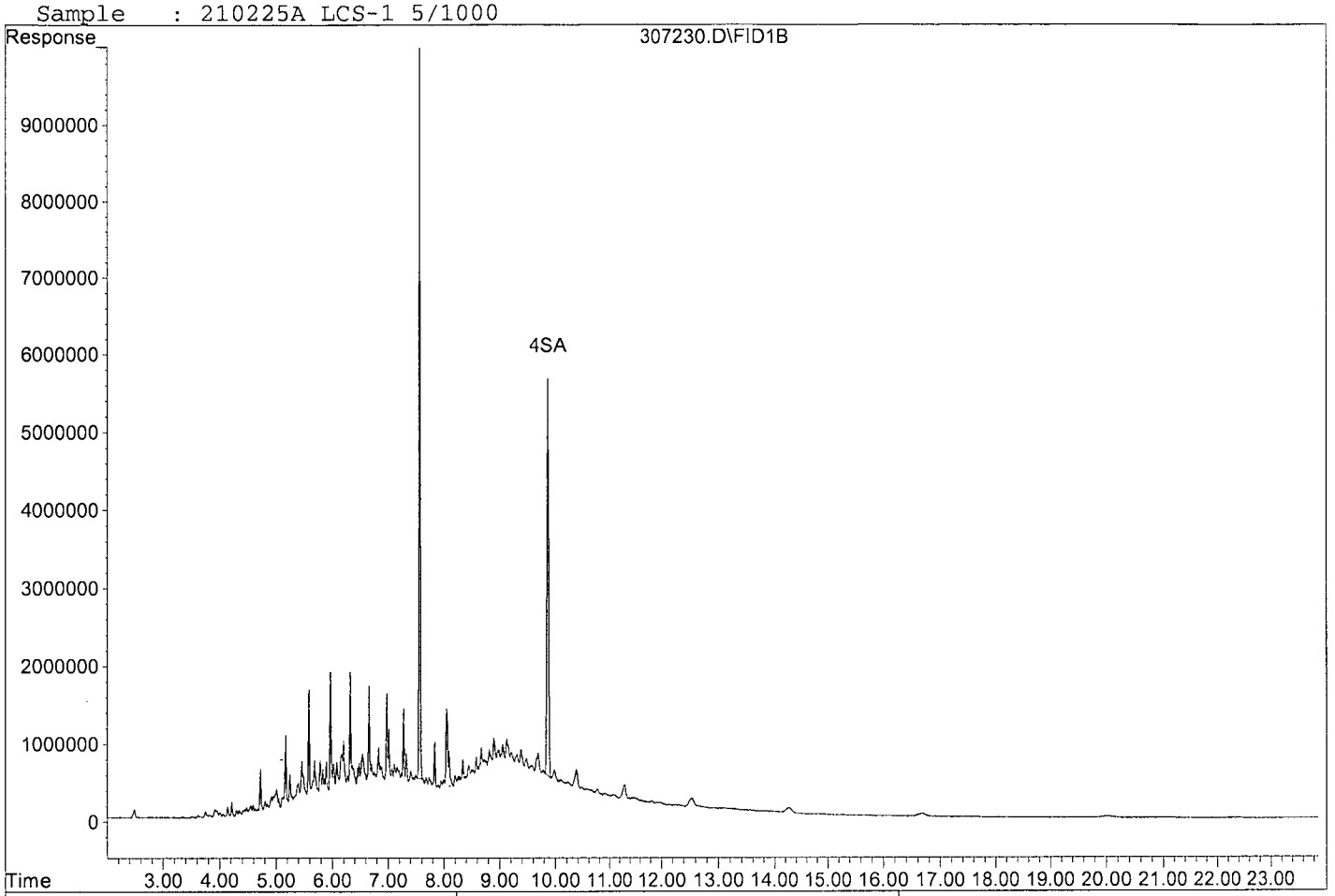
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

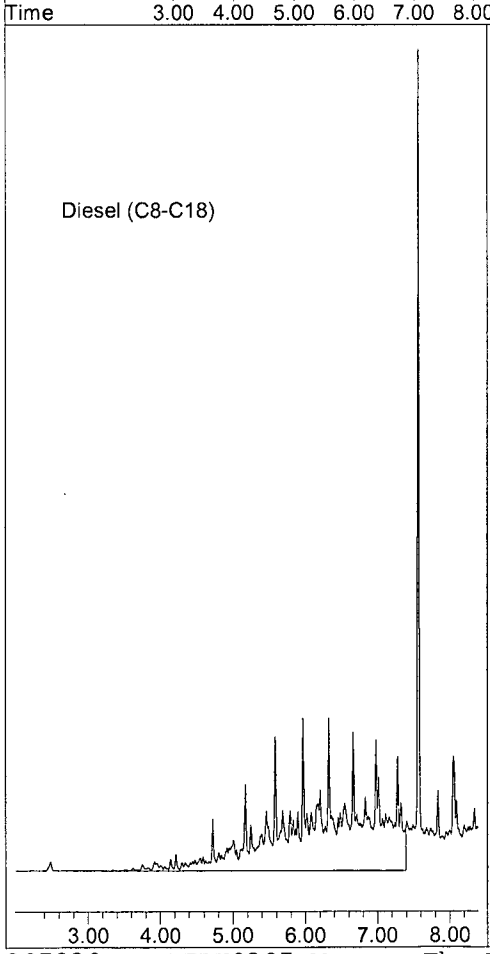
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

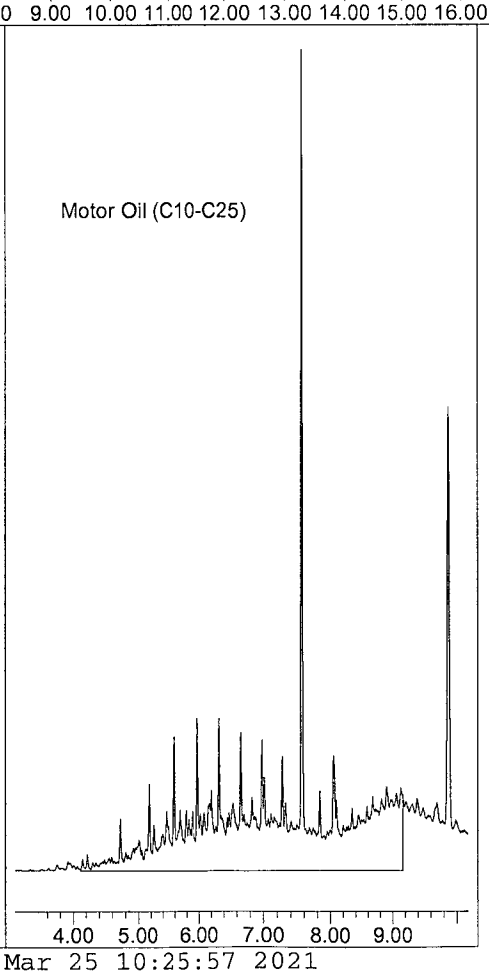
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	132985827	132.306 ppb
Surrogate Spike 150.000		Recovery =	88.20%
4) SA Octacosane(S)	9.87	109273544	140.393 ppb
Surrogate Spike 150.000		Recovery =	93.60%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	923106731	1332.339 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1578271794	1734.794 ppb

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

Data File: G:\APOLLO\DATA\210307\307230.D
Sample : 210225A LCS-1 5/1000







Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210307\307230.D Vial: 30
Acq On : 3-17-21 15:11:23 Operator: BT
Sample : 210225A LCS-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 16:12 2021 Quant Results File: DEC0208.RES

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) SC Decanoic Acid(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 120.000		Recovery =	0.00%		

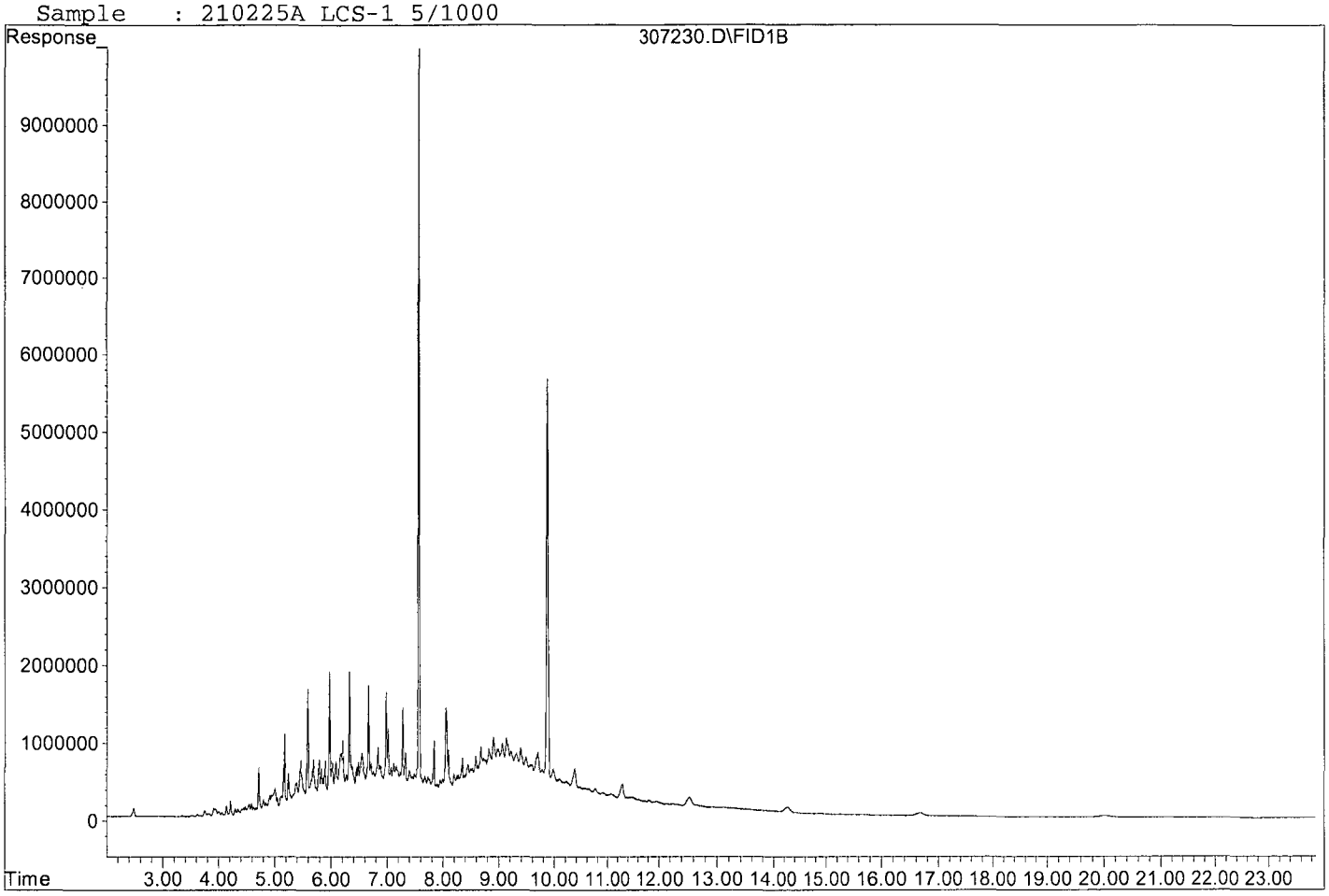
Target Compounds

Target Compounds

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307230.D
Sample : 210225A LCS-1 5/1000



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322062.D Vial: 62
Acq On : 3-23-21 14:23:42 Operator: MB
Sample : 210317A LCS-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 26 9:29 2021 Quant Results File: AERH0307.RES

Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

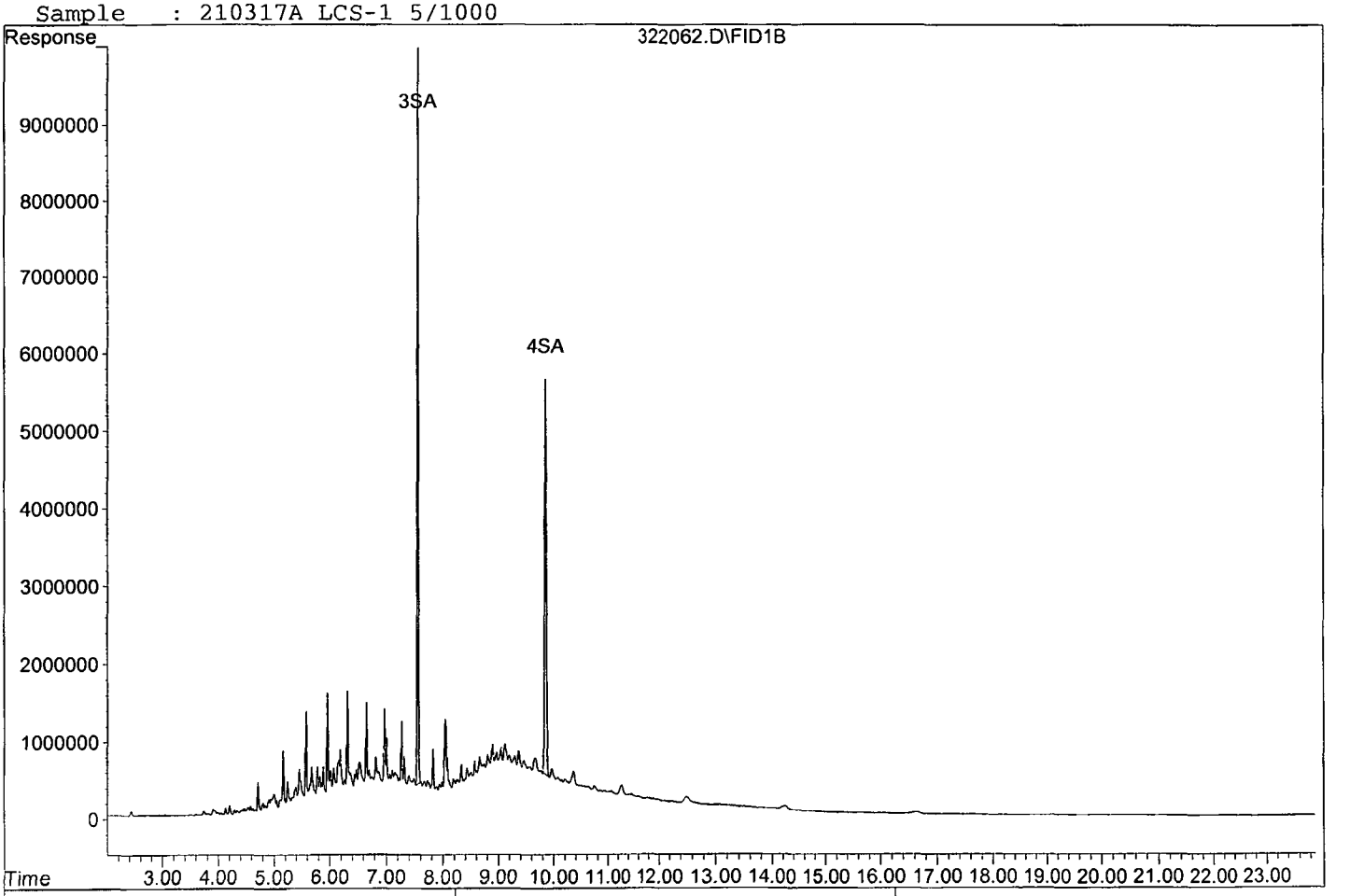
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

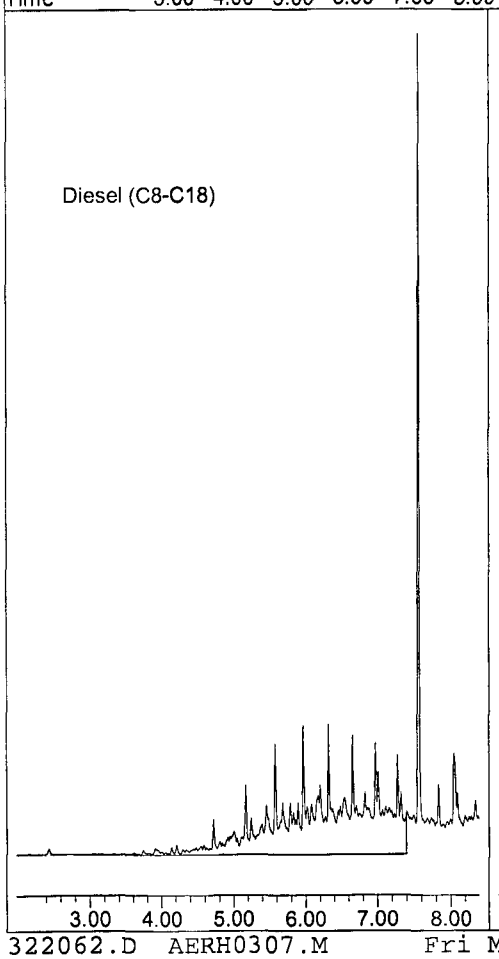
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	119433891	118.823 ppb
Surrogate Spike 150.000		Recovery =	79.22%
4) SA Octacosane(S)	9.86	110240400	141.635 ppb
Surrogate Spike 150.000		Recovery =	94.42%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	777709346	1122.484 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1359707406	1494.554 ppb

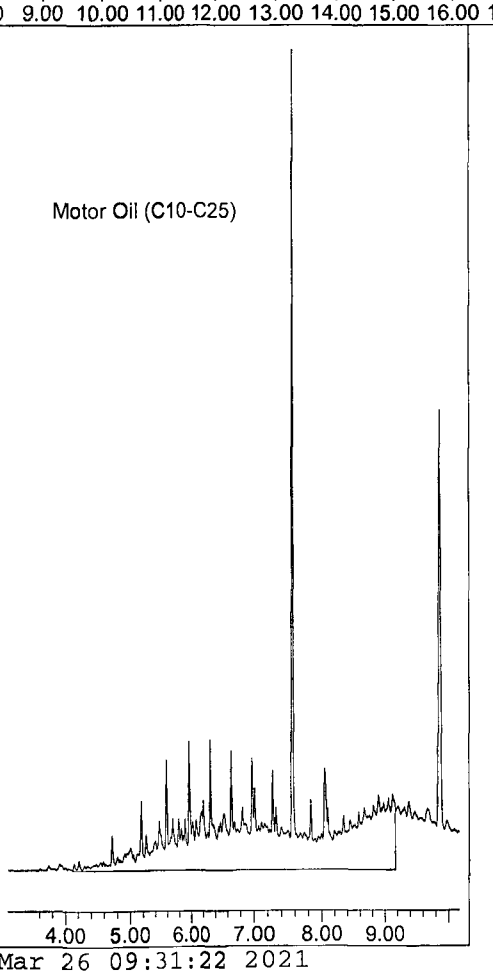
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\210322\322062.D
Sample : 210317A LCS-1 5/1000







Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210302\302006.D Vial: 6
Acq On : 3-2-21 16:08:33 Operator: LS
Sample : 210225A LCSD-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 3 13:18 2021 Quant Results File: AERH0212.RES

Method : G:\APOLLO\DATA\210302\AERH0212.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Wed Mar 03 09:46:35 2021
Response via : Multiple Level Calibration

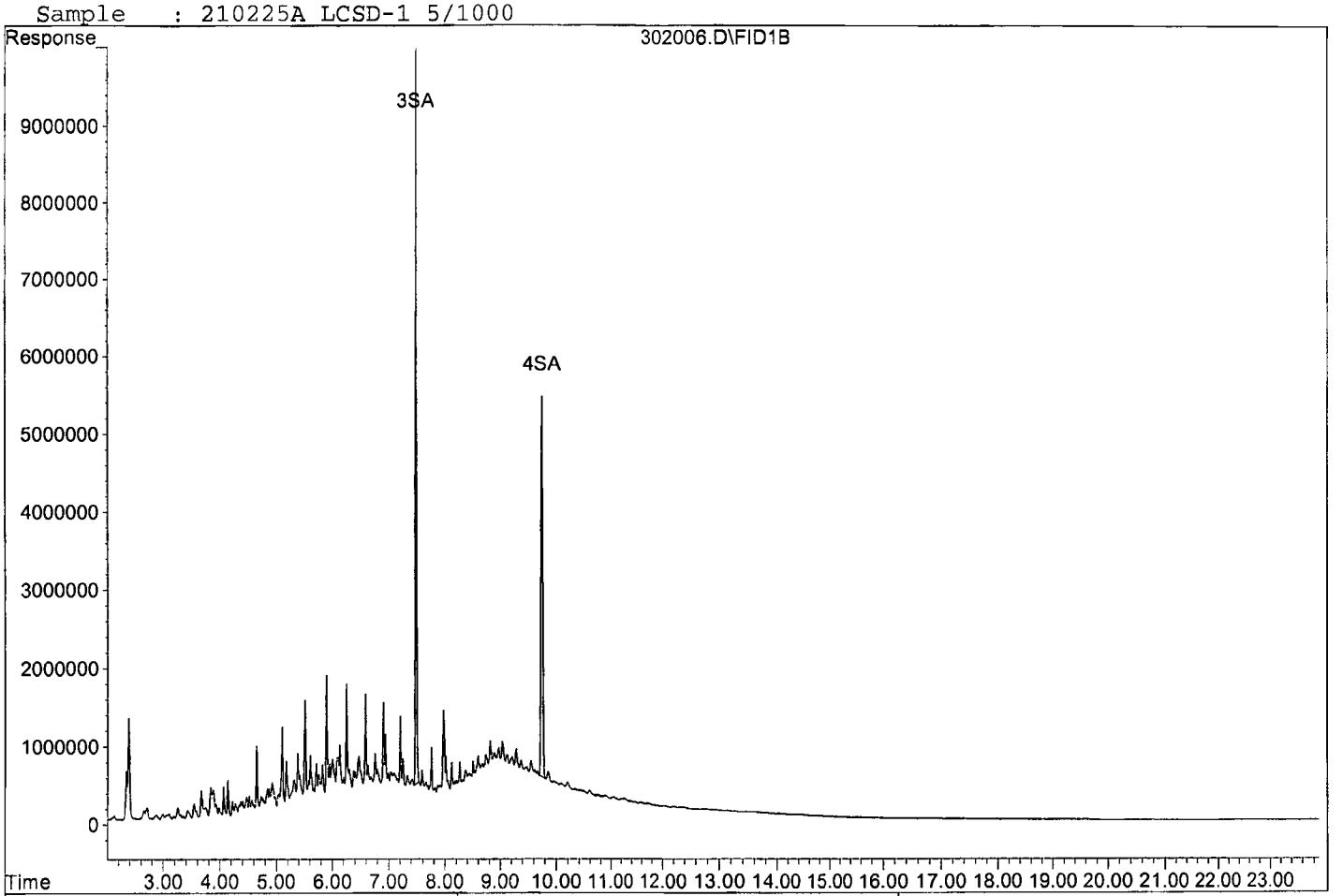
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

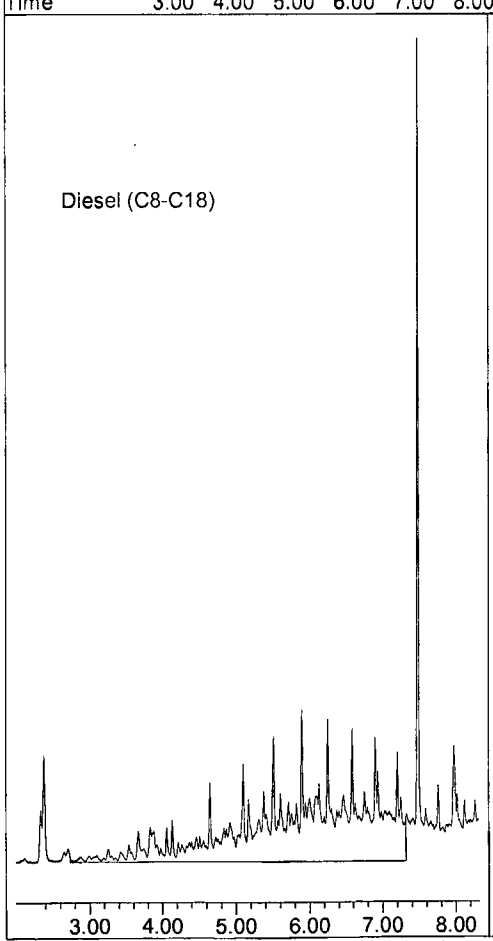
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.48	124841827	120.972 ppb
Surrogate Spike 150.000		Recovery =	80.65%
4) SA Octacosane(S)	9.75	101878182	125.266 ppb
Surrogate Spike 150.000		Recovery =	83.51%
Target Compounds			
1) HATM Diesel (C8-C18)	5.03	1051886944	1857.806 ppb
2) HBTM Motor Oil (C10-C25)	6.56	1563720111	1844.524 ppb

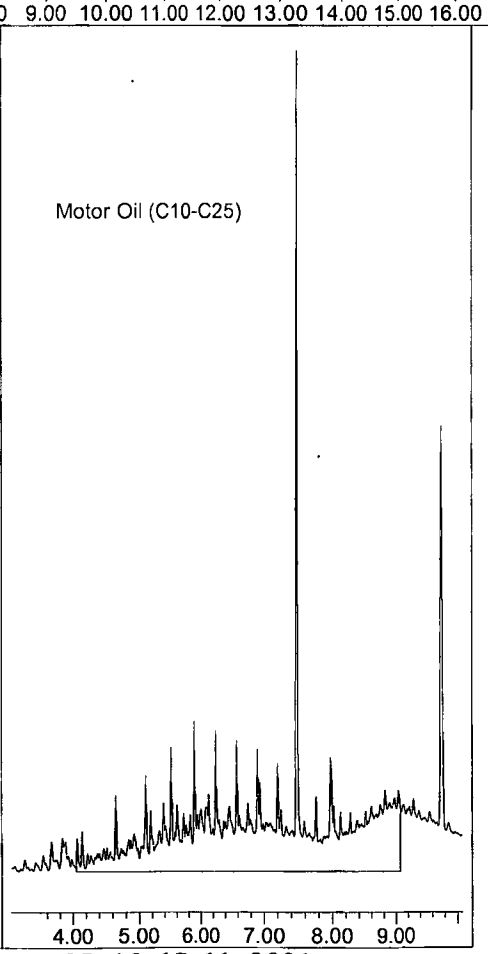
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\210302\302006.D
Sample : 210225A LCSD-1 5/1000







302006.D AERH0212.M Thu Mar 25 10:17:11 2021

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210307\307231.D Vial: 31
Acq On : 3-17-21 15:40:04 Operator: BT
Sample : 210225A LCSD-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 19 15:44 2021 Quant Results File: AERH0307.RES

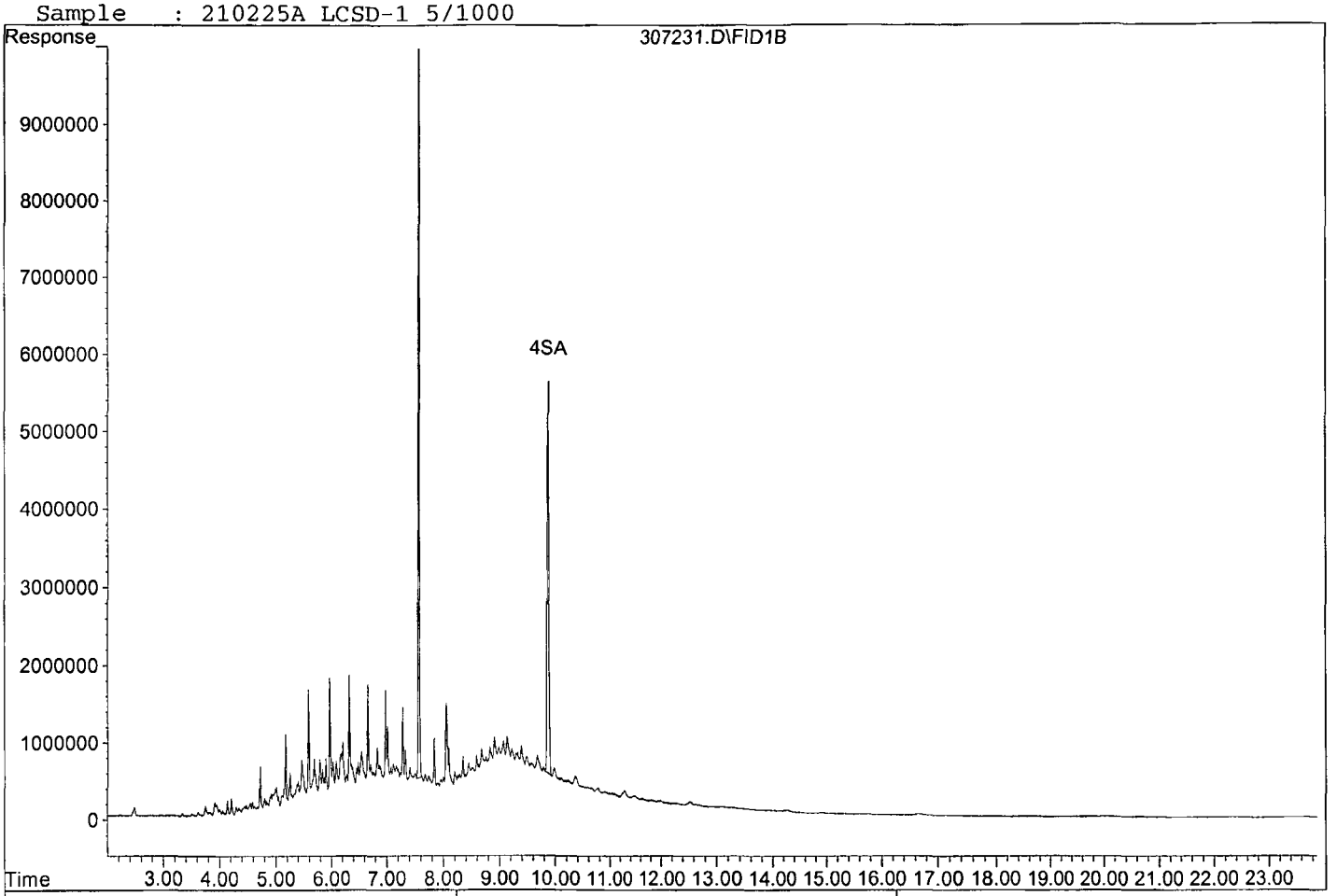
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

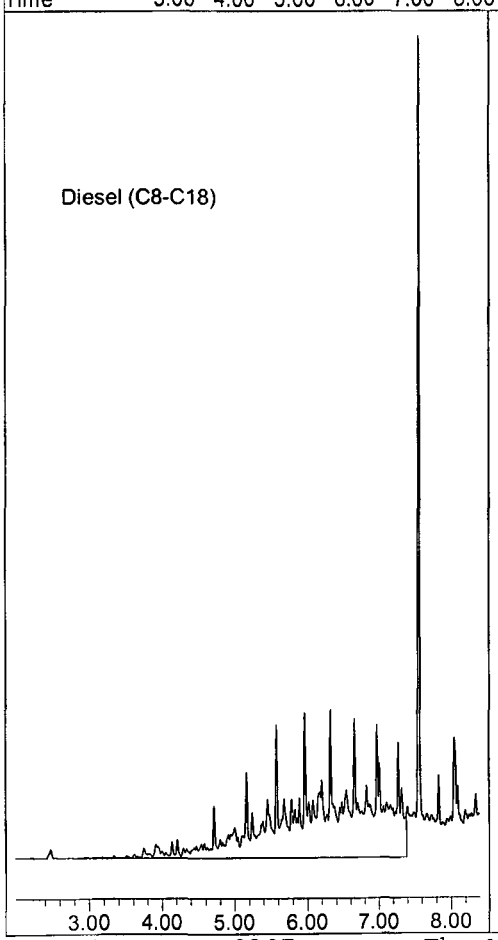
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

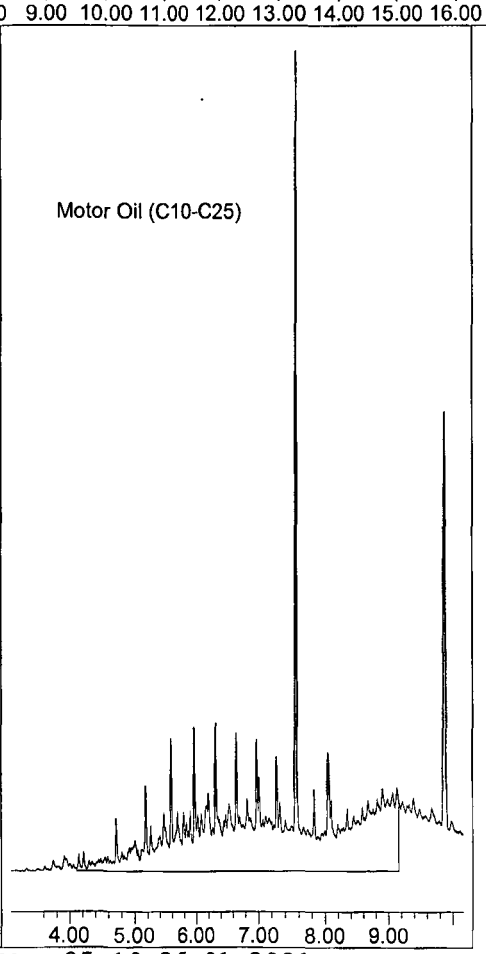
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.57	132866875	132.188 ppb
Surrogate Spike 150.000		Recovery =	88.13%
4) SA Octacosane(S)	9.88	108972857	140.006 ppb
Surrogate Spike 150.000		Recovery =	93.34%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	926995359	1337.952 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1577928360	1734.417 ppb

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

Data File: G:\APOLLO\DATA\210307\307231.D
Sample : 210225A LCSD-1 5/1000







Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\210307\307231.D
Acq On : 3-17-21 15:40:04
Sample : 210225A LCSD-1 5/1000
Misc : water
IntFile : events.e
Quant Time: Mar 19 16:12 2021 Quant Results File: DEC0208.RES

Vial: 31
Operator: BT
Inst : Apollo
Multiplr: 5.00

Method : G:\APOLLO\DATA\210307\DEC0208.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 16:09:06 2021
Response via : Multiple Level Calibration

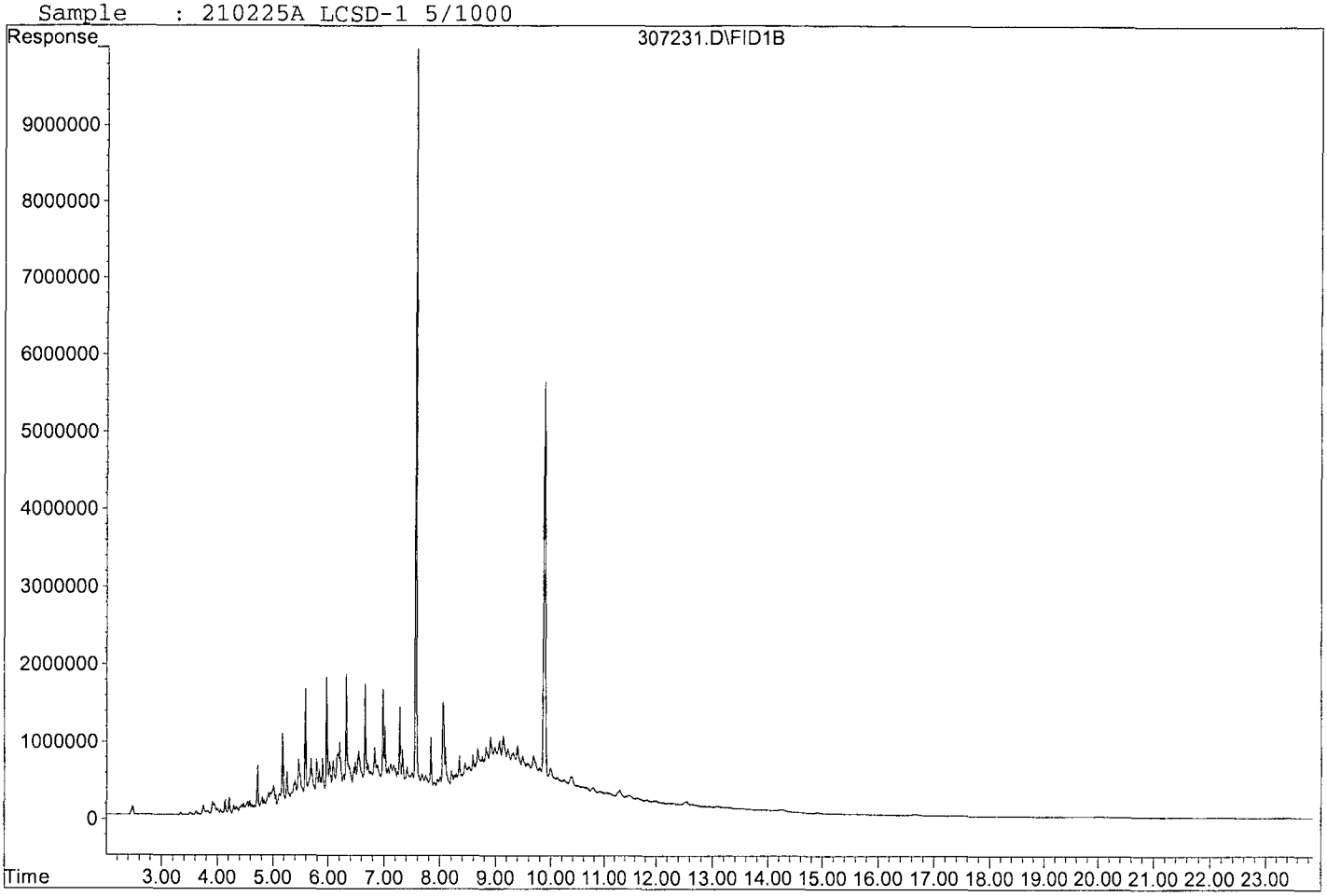
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) SC Decanoic Acid(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 120.000		Recovery =	0.00%		
Target Compounds					
Target Compounds					

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

Quantitation Report

Data File: G:\APOLLO\DATA\210307\307231.D
Sample : 210225A LCSD-1 5/1000



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\210322\322063.D Vial: 63
Acq On : 3-23-21 14:52:27 Operator: MB
Sample : 210317A LCSD-1 5/1000 Inst : Apollo
Misc : water Multiplr: 5.00
IntFile : events.e
Quant Time: Mar 26 9:29 2021 Quant Results File: AERH0307.RES

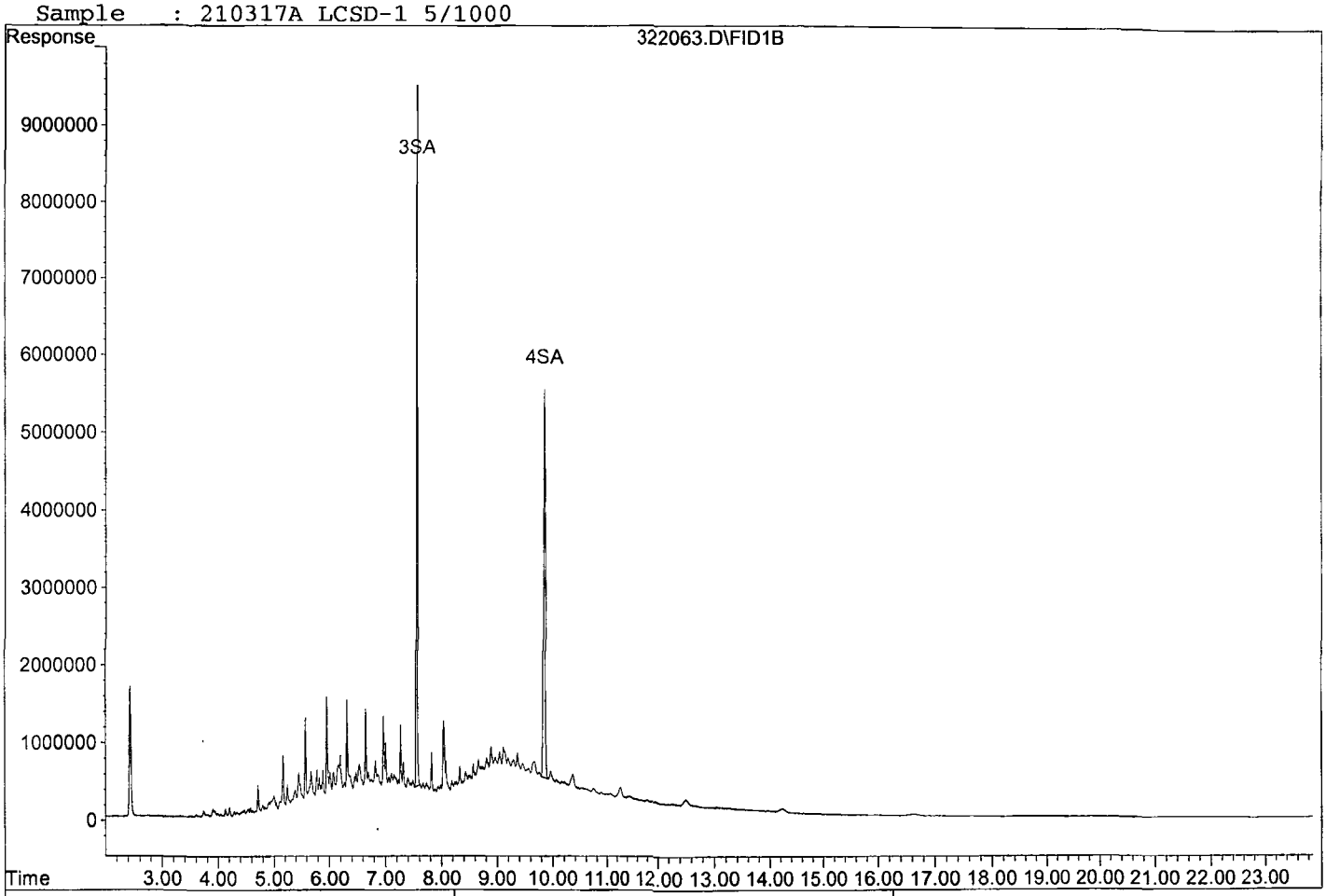
Method : G:\APOLLO\DATA\210307\AERH0307.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Mar 19 14:52:55 2021
Response via : Multiple Level Calibration

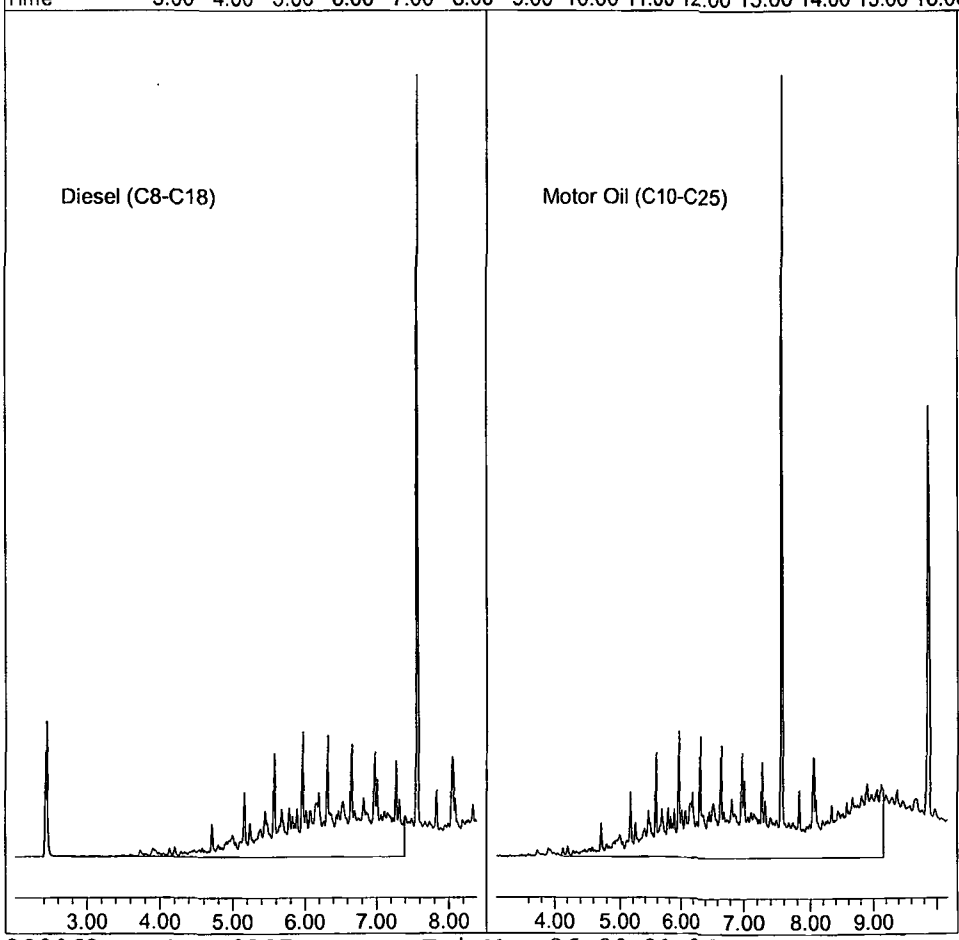
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	7.56	114235034	113.651 ppb
Surrogate Spike 150.000		Recovery =	75.77%
4) SA Octacosane(S)	9.86	106840722	137.267 ppb
Surrogate Spike 150.000		Recovery =	91.51%
Target Compounds			
1) HATM Diesel (C8-C18)	5.09	740553188	1068.856 ppb
2) HBTM Motor Oil (C10-C25)	6.64	1298134647	1426.875 ppb

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

Data File: G:\APOLLO\DATA\210322\322063.D
Sample : 210317A LCSD-1 5/1000





322063.D AERH0307.M Fri Mar 26 09:31:26 2021

Diesel Motor Oil Mix

Prepared: 01/28/21

Expires: 01/28/22

Prepared By (Initials): SS

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	A0156490-50991,50992,51528	01/28/22	02/28/27	4.05 mL	8.1 mL	NA	25,000
Motor Oil Composite	Restek	31464	50,000	A0155668-50514 A0160024-5153 A0157842-50994	01/28/22	01/31/27	4.05 mL			25,000

Decanoic Acid Spike

Prepared: 12/01/20

Expires: 12/01/21

Prepared By (Initials): SS

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Decanoic Acid Spike	Absolute	72766	1,000	**080320-50538-42**	**12/01/21**	**08/03/23**	N/A	N/A	N/A	1,000

THC Surrogate

Prepared: 02/24/21

Expires: 02/24/22

Prepared By (Initials): MA

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL15440-50954	02/24/22	06/30/25	N/A	N/A	N/A	600

Diesel Motor Oil Mix

Prepared: 03/05/21

Expires: 03/05/22

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	A0156490-51529,51530,51531	03/05/22	02/28/27	4.00 mL	8.0 mL	NA	25,000
Motor Oil Composite	Restek	31464	50,000	A0160026-51535,51536,51537	03/05/22	05/31/27	4.00 mL			25,000

Decanoic Acid Spike

Prepared: 03/16/21

Expires: 03/16/22

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Decanoic Acid Spike	Absolute	72766	1,000	080320-51183-87	03/16/22	08/03/23	N/A	N/A	N/A	1,000

THC Surrogate

Prepared: 03/16/21

Expires: 03/16/22

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	**CL15902-51793**	**03/16/22**	**10/31/25**	N/A	N/A	N/A	600

Diesel / Motor Oil CCV

Prepared: 02/02/21

Expires: 08/05/21

Prepared By (Initials): SS

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date and Lot #'s	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil STD	Restek	Diesel / Motor Oil CCV	2,000	Prep'd: 09/05/20 A0154201-50381,50522,50526 A0155568-50515,50518,50519 CL15440-50421	08/05/21	06/30/25	1250uL	10mL	MC	250

Diesel / Motor Oil Calibration Curve

Prepared: 02/12/21

Expires: 01/28/22

Prepared By (Initials): SS

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Conc. (ug/mL)	APPL Mix Name	Reference to APPL Prep Date and Lot #'s	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil - 2	APPL	10	Diesel / Motor Oil - 1	Prep'd: 02/11/21 A0156490-50991,50992,51528 A0155658-50514 A0160024-5153 A0157642-50994 CL15440-50948	01/28/22	2/28/27 1/31/27 06/30/2025	100uL	200uL	MC	5
Diesel / Motor Oil -3		50	Diesel / Motor Oil - 2				200uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	Restek	2,000	Diesel / Motor Oil -3				25uL	1mL	MC	50
			Diesel / Motor Oil - 4				125uL	1mL	MC	250
			Diesel / Motor Oil - 5				500uL	1mL	MC	1000
			Diesel / Motor Oil - 6				750uL	1mL	MC	1500
			Diesel / Motor Oil - 7				100uL	100uL	N/A	2,000

Diesel / Motor Oil Second Source

Prepared: 07/21/20

Expires: 07/21/21

Prepared By (Initials): SS

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2 Second Source	Phenova	ALO-101287	50,000	**CL13327-40550**	**07/21/21**	**02/28/22**	50uL	10mL	MC	250
Motor Oil Second Source	Absolute	51094	50,000	**010918-39581**	**07/21/21**	**01/09/23**	50uL			

Diesel / Motor Oil Calibration Curve

Prepared: 03/07/21

Expires: 01/28/22

Methylene Chloride Lot No. 58059

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Conc. (ug/mL)	APPL Mix Name	Reference to APPL Prep Date and Lot #'s	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil - 2	APPL	10	Diesel / Motor Oil - 1	Perp'd: 02/11/21 A0156490-50991,50992,51528 A0155668-50514 A0160024-5153 A0157842-50894 CL15440-50948	01/28/22	2/28/27 1/31/27 06/30/2025	100uL	200uL	MC	5
Diesel / Motor Oil -3		50	Diesel / Motor Oil - 2				200uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	Restek	2,000	Diesel / Motor Oil -3				25uL	1mL	MC	50
			Diesel / Motor Oil - 4				125uL	1mL	MC	250
			Diesel / Motor Oil - 5				500uL	1mL	MC	1000
			Diesel / Motor Oil - 6				750uL	1mL	MC	1500
			Diesel / Motor Oil - 7				100uL	100uL	N/A	2,000

Decanoic Acid Calibration Curve

Prepared: 02/08/21

Expires: 09/14/21

Methylene Chloride Lot No. 58059

Prepared By (Initials): SS

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Decanoic Acid STD	O2SI	Decanoic Acid-1	60	Prepared 09/14/20	09/14/21	N/A	50uL	1mL	MC	3
		Decanoic Acid-2					100uL	1mL	MC	6
		Decanoic Acid-3					400uL	1mL	MC	24
		Decanoic Acid-4					600uL	1mL	MC	36
		Decanoic Acid-5					800uL	1mL	MC	48
		Decanoic Acid-6					100uL	100uL	N/A	60

Decanoic Acid Standard

Prepared: 09/14/20

Expires: 09/14/21

Methylene Chloride Lot No. 58059

Prepared By (Initials): SS

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Decanoic Acid	O2SI	011729-01-05-5PAK	1,000	397380-50547	09/14/21	12/30/21	600uL	10mL	MC	60

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	210225A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Motor Oil Mix 1-28-21 1-28-22		Surrogate ID 1	THC Surrogate 2-24-21 2-24-22	
Spiked ID 2	Decanoic 1000ug/mL Acid Solution 12-1-20 12-1-21		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	NO	
Spiked ID 7			Ext. Start Time:	02/25/21 12:30	
Spiked ID 8			Ext. End Time:	02/26/21 6:30	
			GC Requires Extract By:		

pH1	2	02/25/21 11:45	Water Bath Temp 1 °C	37/35.5 °C
pH2			Water Bath Temp 2 °C	35/38.1
pH3			Water Bath Temp 3 °C	35/34.5 °C

Spiked By: DL **Date** 02/25/21 **Witnessed By:** CFM **Date** 02/25/21

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	210225A Blk		0.05	2	0.250	1	1000	5	2	02/25/21 11:50	*
						equip	E-HP51 E-WB1				
2	210225A LCS-1		0.080,0.05	,12	0.250	1	1000	5	2	02/25/21 11:50	*
						equip	E-HP50 E-HP2				
3	210225A LCSD-1		0.080,0.05	1,2	0.250	1	1000	5	2	02/25/21 11:50	*
						equip	E-HP49 E-HP3				
4	BA27407	BA27407W06	0.05	2	0.250	1	1050	5	2	02/25/21 11:50	95181 *
						equip	E-HP48 E-HP1				
5	BA27408	BA27408W07	0.05	2	0.250	1	1000	5	2	02/25/21 11:50	95181 *
						equip	E-HP47 E-HP2				
6	BA27502	BA27502W08	0.05	2	0.250	1	1000	5	2	02/25/21 11:50	95192 *
						equip	E-HP15 E-HP3				
7	BA27504	BA27504W08	0.05	2	0.250	1	1000	5	2	02/25/21 11:50	95192 *
						equip	E-HP16 E-HP1				

Solvent and Lot#	
1+1 HCL (5mLs)/HCL Amber	59072
PH Strips	HC094495
Dicholormethane	60185
Filter Paper	400178
Sodium Sulfate	201907279
Silica Gel (*)	050627T

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	MB
Date	3/1/21
Time	8:50
Refrigerator	Hood 1

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	03/04/21 10:26:18 AM

Reviewed By: **Date**

_LIQ005

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	210317A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Motor Oil Mix 3-5-21 3-5-22		Surrogate ID 1	THC Surrogate 3-16-21 3-16-22	
Spiked ID 2	Decanoic 1000ug/mL Acid Solution 3-16-21 3-16-22		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	NO	
Spiked ID 7			Ext. Start Time:	03/17/21 11:25	
Spiked ID 8			Ext. End Time:	03/18/21 7:05	
			GC Requires Extract By:		

pH1	2	03/17/21 11:15	Water Bath Temp 1 °C	39/37.5 °C
pH2			Water Bath Temp 2 °C	35/38.1
pH3			Water Bath Temp 3 °C	35/34.5 °C

Spiked By: KY **Date** 03/17/21 **Witnessed By:** DL **Date** 03/17/21

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	210317A Blk		0.05	2	0.250	1	1000	5	2	03/17/21 11:25	RE-EXTRACT *
						equip	E-HP51 E-WB1				
2	210317A LCS-1		0.080,0.05	,12	0.250	1	1000	5	2	03/17/21 11:25	*
						equip	E-HP50 E-WB2				
3	210317A LCSD-1		0.080,0.05	1,2	0.250	1	1000	5	2	03/17/21 11:25	*
						equip	E-HP49 E-WB3				
4	BA27407	BA27407W07	0.05	2	0.250	1	970	5	2	03/17/21 11:25	95181 *
						equip	E-HP48 E-WB1				
5	BA27408	BA27408W06	0.05	2	0.250	1	1030	5	2	03/17/21 11:25	95181 *
						equip	E-HP47 E-WB2				
6	BA27502	BA27502W07	0.05	2	0.250	1	990	5	2	03/17/21 11:25	95192 *
						equip	E-HP25 E-WB3				
7	BA27504	BA27504W07	0.05	2	0.250	1	1010	5	2	03/17/21 11:25	95192 *
						equip	E-HP26 E-WB1				

Solvent and Lot#	
1+1 HCL (5mLs)/HCL Amber	60282
PH Strips	HC025486
Dicholormethane	60182
Filter Paper	400178
Sodium Sulfate	2020082001
Silica Gel (*)	050627T

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	CW
Date	3/19/21
Time	3:23
Refrigerator	H6047

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	03/22/21 6:47:39 AM

Reviewed By: **Date**

Injection Log

Directory: G:\APOLLO\DATA\210208\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	208001.D	1	Decanoic Acid- 1 2/8/21	water	2-8-21 12:45:58
2	2	208002.D	1	Decanoic Acid- 2 2/8/21	water	2-8-21 13:13:57
3	3	208003.D	1	Decanoic Acid- 3 2/8/21	water	2-8-21 13:42:06
4	4	208004.D	1	Decanoic Acid- 4 2/8/21	water	2-8-21 14:10:19
5	5	208005.D	1	Decanoic Acid- 5 2/8/21	water	2-8-21 14:38:32
6	6	208006.D	1	Decanoic Acid- 6 2/8/21	water	2-8-21 15:06:47
7	2	212002.D	1	carbon marker	water	2-12-21 11:00:37
8	3	212003.D	1	Diesel Motor Oil- 1 2/12/21	water	2-12-21 11:28:37
9	4	212004.D	1	Diesel Motor Oil- 2 2/12/21	water	2-12-21 11:56:36
10	5	212005.D	1	Diesel Motor Oil- 3 2/12/21	water	2-12-21 12:24:41
11	6	212006.D	1	Diesel Motor Oil- 4 2/12/21	water	2-12-21 12:52:42
12	7	212007.D	1	Diesel Motor Oil- 5 2/12/21	water	2-12-21 13:20:42
13	8	212008.D	1	Diesel Motor Oil- 6 2/12/21	water	2-12-21 13:48:44
14	9	212009.D	1	Diesel Motor Oil- 7 2/12/21	water	2-12-21 14:16:46
15	10	212010.D	1	Diesel Motor Oil- SS 7/21/20	water	2-12-21 14:44:53
16	2	302002.D	1	Carbon Marker	water	3-2-21 14:03:43
17	3	302003.D	1	Diesel Motor Oil- CCV 2/2/21	water	3-2-21 14:32:05
18	4	302004.D	5	210225A BLK 5/1000	water	3-2-21 15:11:46
19	5	302005.D	5	210225A LCS-1 5/1000	water	3-2-21 15:40:08
20	6	302006.D	5	210225A LCSD-1 5/1000	water	3-2-21 16:08:33
21	9	302009.D	5	BA27502W08 5/1000	water	3-2-21 17:33:36
22	10	302010.D	5	BA27504W08 5/1000	water	3-2-21 18:01:52
23	11	302011.D	1	Diesel Motor Oil- CCV 2/2/21	water	3-2-21 18:30:04
24	2	307002.D	1	Carbon Marker	water	3-7-21 16:04:58
25	3	307003.D	1	Diesel Motor Oil - 1 3/7/21	water	3-7-21 16:33:15
26	4	307004.D	1	Diesel Motor Oil - 2 3/7/21	water	3-7-21 17:01:36
27	5	307005.D	1	Diesel Motor Oil - 3 3/7/21	water	3-7-21 17:29:56
28	6	307006.D	1	Diesel Motor Oil - 4 3/7/21	water	3-7-21 17:58:14
29	7	307007.D	1	Diesel Motor Oil - 5 3/7/21	water	3-7-21 18:26:32
30	8	307008.D	1	Diesel Motor Oil - 6 3/7/21	water	3-7-21 18:54:47
31	9	307009.D	1	Diesel Motor Oil - 7 3/7/21	water	3-7-21 19:23:02
32	10	307010.D	1	Diesel Motor Oil SS 7/21/20	water	3-7-21 19:51:21
33	20	307220.D	1	Decanoic Acid 4 03/09/21	water	3-17-21 9:23:51
34	28	307228.D	1	Diesel Motor Oil CCV 02-2-21	water	3-17-21 14:14:03
35	29	307229.D	5	210225A BLK 5/1000	water	3-17-21 14:42:41
36	30	307230.D	5	210225A LCS-1 5/1000	water	3-17-21 15:11:23
37	31	307231.D	5	210225A LCSD-1 5/1000	water	3-17-21 15:40:04
38	34	307234.D	5	BA27502W08 5/1000	water	3-17-21 17:06:15
39	35	307235.D	5	BA27504W08 5/1000	water	3-17-21 17:34:52
40	36	307236.D	1	Diesel Motor Oil CCV 02-2-21	water	3-17-21 18:03:29
41	37	307237.D	1	Decanoic Acid 4 03/09/21	water	3-17-21 18:32:03
42	60	322060.D	1	Diesel Motor Oil CCV 03/19/21	water	3-23-21 13:26:19
43	61	322061.D	5	210317A BLK 5/1000	water	3-23-21 13:54:59
44	62	322062.D	5	210317A LCS-1 5/1000	water	3-23-21 14:23:42
45	63	322063.D	5	210317A LCSD-1 5/1000	water	3-23-21 14:52:27
46	66	322066.D	5.05051	BA27502W07 5/990	water	3-23-21 16:18:56
47	67	322067.D	4.9505	BA27504W07 5/1010	water	3-23-21 16:47:46
48	68	322068.D	1	Diesel Motor Oil CCV 03/19/21	water	3-23-21 17:16:39

ORGANICS

Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/01/21
Matrix: Water Instrument: ZEUS Initials: CH

		Compound	0301Z02.D	0301Z03.D	0301Z04.D	0301Z05 D	0301Z06.D	0301Z07.D	0301Z08.D	0301Z09 D			Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TM	Dichlorodifluoromethane		0.0906	0.1050	0.0855	0.0881	0.0772	0.0801				0.09	11	TM			
3	TM	Freon 114		0.0487	0.0623	0.0486	0.0462	0.0455	0.0507	0.0389			0.05	15	TM			
4	TM**	Chloromethane		0.1369	0.1323	0.1055	0.1055	0.0982	0.1059	0.1013			0.11	14	TM**			
5	TM*	Vinyl chloride		0.1123	0.1105	0.1002	0.0995	0.0943	0.1047	0.1010			0.10	6.2	TM*			
6	TML	Bromomethane		0.0628	0.0556	0.0358	0.0352	0.0304	0.0319	0.0304			0.04	33	TM	1.000		
7	TML	Chloroethane		0.0323	0.0318	0.0203	0.0201	0.0181	0.0180				0.02	29	TM	1.000		
8	TML	Dichlorofluoromethane		0.2141	0.2039	0.1772	0.1779	0.1469	0.1363				0.18	17	TM	0.995		
9	TM	Trichlorofluoromethane		0.2047	0.2136	0.1859	0.1822	0.1589	0.1625				0.18	12	TM			
10	TM	Acrolein		0.0098	0.0098	0.0104	0.0105	0.0105	0.0106	0.0095			0.01	4.1	TM			
11	TM	Acetone		0.0340	0.0309	0.0315	0.0323	0.0325	0.0323	0.0289			0.03	5.1	TM			
12	TM	Freon-113		0.1198	0.1218	0.1037	0.1091	0.1064	0.1146	0.1061			0.11	6.4	TM			
13	TM*	1,1-DCE		0.1545	0.1577	0.1428	0.1465	0.1380	0.1460	0.1391			0.15	5.1	TM*			
14	TM	Acetonitrile		0.0031	0.0028	0.0030	0.0029	0.0026	0.0024				0.00	8.8	TM			
15	TM	t-Butanol		0.0032	0.0030	0.0034	0.0037	0.0036	0.0034				0.00	7.1	TM			
16	TML	Methyl Acetate		0.1223	0.0932	0.0785	0.0791	0.0759	0.0796	0.0758			0.09	20	TM	1.000		
17	TM	Iodomethane		0.1588	0.1514	0.1392	0.1529	0.1494	0.1662	0.1573			0.15	5.5	TM			
18	TM	Acrylonitrile		0.0393	0.0394	0.0360	0.0376	0.0353	0.0367	0.0341			0.04	5.4	TM			
19	TML	Methylene chloride		0.3282	0.2194	0.1441	0.1314	0.1207	0.1225	0.1156			0.17	47	TM	1.000		
20	TM	Carbon disulfide		0.1455	0.1462	0.1163	0.1215	0.1170	0.1263	0.1202			0.13	10	TM			
21	TM	Methyl t-butyl ether (MtBE)		0.2553	0.2454	0.2696	0.2807	0.2721	0.2892	0.2903			0.27	6.2	TM			
22	TM	Trans-1,2-DCE		0.1456	0.1518	0.1401	0.1453	0.1356	0.1433	0.1385			0.14	3.8	TM			
23	TM	Diisopropyl Ether		0.2472	0.2295	0.2609	0.2775	0.2721	0.2920	0.2869			0.27	8.4	TM			
24	TM**	1,1-DCA		0.2004	0.1974	0.1810	0.1847	0.1740	0.1856	0.1777			0.19	5.3	TM**			
25	TML	Vinyl Acetate		0.1072	0.0887	0.1159	0.1334	0.1363	0.1527	0.1554			0.13	19	TM	1.000		
26	TM	Ethyl tert Butyl Ether		0.2289	0.2151	0.2445	0.2596	0.2637	0.2868	0.2926			0.26	11	TM			
27	TM	MEK (2-Butanone)		0.0391	0.0376	0.0433	0.0457	0.0488	0.0499	0.0472			0.04	11	TM			
28	TM	Cis-1,2-DCE		0.1876	0.1833	0.1678	0.1677	0.1564	0.1645	0.1555			0.17	7.3	TM			
29	TM	2,2-Dichloropropane		0.1682	0.1706	0.1554	0.1596	0.1530	0.1655	0.1594			0.16	4.1	TM			
30	TM*	Chloroform		0.2066	0.2204	0.2092	0.2120	0.1961	0.2073	0.2009			0.21	3.8	TM*			
31	TM	Bromochloromethane		0.0960	0.0875	0.0810	0.0796	0.0738	0.0761	0.0735			0.08	10	TM			
32	S	Dibromofluoromethane(S)	0.2122	0.2534	0.2568	0.2804	0.2796	0.2878	0.2898	0.2846			0.27	9.8	S			
33	TM	1,1,1-TCA		0.2022	0.1990	0.1904	0.1965	0.1837	0.1982	0.1898			0.19	3.3	TM			
34	TM	Cyclohexane		0.1629	0.1635	0.1486	0.1606	0.1559	0.1700	0.1591			0.16	4.2	TM			
35	TM	1,1-Dichloropropene		0.1486	0.1413	0.1377	0.1449	0.1373	0.1491	0.1414			0.14	3.4	TM			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 03/01/21
Instrument: ZEUS

Initials: CH

		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type		Q	MRF
36	TM	2,2,4-Trimethylpentane		0.3041	0.3262	0.3086	0.3284	0.3398	0.3782	0.3553			0.33	7.8	TM			
37	S	1,2-DCA-D4(S)	0.2142	0.2481	0.2487	0.2672	0.2637	0.2679	0.2699	0.2691			0.26	7.5	S			
38	TM	Carbon Tetrachloride	0.1706	0.1727	0.1732	0.1672	0.1751	0.1674	0.1852	0.1805			0.17	3.6	TM			
39	TM	Tert Amyl Methyl Ether		0.2049	0.2098	0.2459	0.2595	0.2603	0.2848	0.2929			0.25	14	TM			
40	TM	1,2-DCA		0.1645	0.1562	0.1467	0.1417	0.1326	0.1380	0.1352			0.14	8.1	TM			
41	TM	Benzene		0.4881	0.4576	0.4489	0.4501	0.4221	0.4438	0.4223			0.45	5.0	TM			
42	TM	TCE	0.1442	0.1491	0.1395	0.1369	0.1425	0.1354	0.1460	0.1426			0.14	3.2	TM			
43	TML	2-Pentanone		0.0530	0.0550	0.0671	0.0740	0.0796	0.0835	0.0805			0.07	18	TM	0.993		
44	TM*	1,2-Dichloropropane		0.1122	0.1149	0.1078	0.1107	0.1025	0.1076	0.1041			0.11	4.0	TM*			
45	TM	Bromodichloromethane		0.1268	0.1159	0.1307	0.1352	0.1332	0.1488	0.1526			0.13	9.4	TM			
46	TM	Methyl Cyclohexane		0.1660	0.1730	0.1658	0.1791	0.1825	0.2018	0.1903			0.18	7.3	TM			
47	TM	Dibromomethane		0.1130	0.1029	0.1070	0.1095	0.1041	0.1104	0.1116			0.11	3.5	TM			
48	TML	MIBK (methyl isobutyl ketone)		0.0630	0.0653	0.0786	0.0862	0.0925	0.0971	0.0986			0.08	18	TM	0.996		
49	TM	1-Bromo-2-chloroethane		0.0208	0.0203	0.0213	0.0213	0.0210	0.0227	0.0230			0.02	4.6	TM			
50	TM	2-Chloroethyl vinyl ether													TM			
51	TM	Cis-1,3-Dichloropropene		0.1331	0.1333	0.1504	0.1619	0.1627	0.1808	0.1839			0.16	13	TM			
52	TM*	Toluene		0.4976	0.4945	0.4862	0.4952	0.4609	0.4955	0.4727			0.49	2.9	TM*			
53	TM	Trans-1,3-Dichloropropene		0.1250	0.1184	0.1318	0.1450	0.1468	0.1632	0.1701			0.14	13	TM			
54	TM	1,1,2-TCA		0.0902	0.0899	0.0985	0.1017	0.0996	0.1069	0.1065			0.10	7.0	TM			
55	TML	2-Hexanone		0.0418	0.0441	0.0543	0.0592	0.0631	0.0656	0.0665			0.06	18	TM	0.997		
56	I	Chlorobenzene-D5 (IS)																
57	S	Toluene-D8(S)	0.8739	1.050	1.066	1.179	1.167	1.179	1.173	1.083			1.1	9.6	S			
58	TM	1,2-EDB		0.1142	0.1133	0.1304	0.1363	0.1319	0.1408	0.1411			0.13	9.0	TM			
59	TM	Tetrachloroethene	0.2365	0.2324	0.2235	0.2130	0.2198	0.2068	0.2213	0.2063			0.22	5.0	TM			
60	TM	1-Chlorohexane		0.1554	0.1798	0.1825	0.1896	0.1854	0.2012	0.1839			0.18	7.6	TM			
61	TM	1,1,1,2-Tetrachloroethane		0.1262	0.1274	0.1426	0.1492	0.1476	0.1597	0.1581			0.14	9.3	TM			
62	TM	m&p-Xylene		0.4913	0.5024	0.5242	0.5448	0.5067	0.5300	0.4661			0.51	5.2	TM			
63	TM	o-Xylene		0.4878	0.4637	0.5236	0.5440	0.5158	0.5482	0.5053			0.51	5.9	TM			
64	TM	Styrene		0.2969	0.3042	0.3721	0.4051	0.4026	0.4361	0.4129			0.38	15	TM			
65	S	4-Bromofluorobenzene(S)	0.3436	0.4169	0.4191	0.4744	0.4750	0.4809	0.4888	0.4600			0.44	11	S			
66	TM	1,3-Dichloropropane		0.1934	0.1869	0.1966	0.2059	0.1946	0.2049	0.1986			0.20	3.4	TM			
67	TML	Dibromochloromethane		0.1118	0.1064	0.1268	0.1386	0.1382	0.1556	0.1651			0.13	16	TM	0.999		
68	TM**	Chlorobenzene		0.4512	0.4348	0.4298	0.4363	0.4112	0.4270	0.4018			0.43	3.9	TM**			
69	TM*	Ethylbenzene		0.6342	0.6357	0.6684	0.6876	0.6540	0.6887	0.6356			0.66	3.7	TM*			
70	TM**L	Bromoform		0.0837	0.0822	0.0960	0.1078	0.1121	0.1340	0.1472			0.11	23	TM**	0.998		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/01/21
Matrix: Water Instrument: ZEUS Initials: CH

		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type		Q	MRF
71	I	1,4-Dichlorobenzene-D (IS)																
72	TM	Isopropylbenzene		0.9146	0.9139	1.024	1.104	1.063	1.154	1.099			1.0	9.0	TM			
73	TM**	1,1,2,2-Tetrachloroethane		0.2051	0.1978	0.2288	0.2459	0.2372	0.2633	0.2576			0.23	11	TM**			
74	TM	1,2,3-Trichloropropane		0.0767	0.0748	0.0923	0.0971	0.0918	0.0994	0.0973			0.09	11	TM			
75	TM	t-1,4-Dichloro-2-Butene		0.0448	0.0414	0.0496	0.0530	0.0513	0.0614	0.0612			0.05	15	TM			
76	TM	Bromobenzene		0.3888	0.3519	0.3666	0.3809	0.3398	0.3834	0.3703			0.37	4.8	TM			
77	TM	n-Propylbenzene		1.074	1.056	1.182	1.239	1.164	1.290	1.199			1.2	7.2	TM			
78	TM	4-Ethyltoluene		0.9229	0.9222	1.049	1.105	1.029	1.113	1.050			1.0	7.6	TM			
79	TM	2-Chlorotoluene		0.8011	0.8148	0.8512	0.8715	0.8022	0.8524	0.8165			0.83	3.4	TM			
80	TM	1,3,5-Trimethylbenzene		0.7991	0.8165	0.9210	0.9542	0.8843	0.9415	0.8833			0.89	6.7	TM			
81	TM	4-Chlorotoluene		0.8011	0.8148	0.8512	0.8715	0.8022	0.8524	0.8165			0.83	3.4	TM			
82	TM	Tert-Butylbenzene		0.7420	0.8003	0.8036	0.8477	0.8099	0.8962	0.8534			0.82	6.0	TM			
83	TM	1,2,4-Trimethylbenzene		0.7279	0.7814	0.9190	0.9420	0.9091	0.9805	0.9291			0.88	10	TM			
84	TM	Sec-Butylbenzene		0.9598	1.007	1.127	1.195	1.147	1.247	1.180			1.1	9.2	TM			
85	TM	p-Isopropyltoluene		0.9930	0.9597	1.045	1.102	1.044	1.132	1.058			1.0	5.6	TM			
86	TML	Benzyl Chloride		0.1379	0.1347	0.1509	0.1752	0.1787	0.2167	0.2313			0.18	22	TM	0.998		
87	TM	1,3-DCB		0.7005	0.6327	0.6489	0.6480	0.6096	0.6408	0.6260			0.64	4.4	TM			
88	TM	1,4-DCB		0.6090	0.5518	0.5831	0.5999	0.5712	0.6011	0.5927			0.59	3.4	TM			
89	TM	n-Butylbenzene		0.7106	0.7310	0.8491	0.9162	0.8848	0.9666	0.8921			0.85	11	TM			
90	TM	1,2-DCB		0.6279	0.6258	0.6410	0.6488	0.6141	0.6504	0.6338			0.63	2.1	TM			
91	TML	Hexachloroethane		0.1419	0.1401	0.1597	0.1879	0.1919	0.2327	0.2497			0.19	23	TM	0.998		
92	TML	1,2-Dibromo-3-chloropropane		0.0525	0.0465	0.0624	0.0713	0.0736	0.0871	0.0905			0.07	24	TM	0.999		
93	TM	1,2,4-Trichlorobenzene		0.5161	0.5054	0.5265	0.5464	0.5290	0.5684	0.5480			0.53	4.0	TM			
94	TM	Hexachlorobutadiene		0.2888	0.2765	0.2794	0.2983	0.2839	0.3086	0.3005			0.29	4.1	TM			
95	TML	Naphthalene		0.7266	0.6886	0.9183	1.016	1.023	1.096	1.035			0.93	17	TM	0.999		
96	TM	1,2,3-Trichlorobenzene		0.4102	0.3851	0.4342	0.4436	0.4382	0.4599	0.4512			0.43	6.0	TM			
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z02.D
Acq On : 01 Mar 21 14:13
Sample : 0.2ug/L HCL 3/1/21
Misc :

Vial: 2
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3380955	25.00	ppb		0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2761592	25.00	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1839707	25.00	ppb		0.00
System Monitoring Compounds							
32) Dibromofluoromethane(S)	5.27	111	143514	3.96	ppb		0.00
Spiked Amount 25.000			Recovery	=	15.836%		
37) 1,2-DCA-D4(S)	5.68	65	144836	4.18	ppb		0.00
Spiked Amount 25.000			Recovery	=	16.728%		
57) Toluene-D8(S)	8.01	98	482693	3.99	ppb		0.00
Spiked Amount 25.000			Recovery	=	15.944%		
65) 4-Bromofluorobenzene(S)	10.88	95	189799	3.86	ppb		0.00
Spiked Amount 25.000			Recovery	=	15.452%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.06	85	2002	0.17	ppb		96
3) Freon 114	1.16	85	1277	0.19	ppb		92
4) Chloromethane	1.21	50	6062	0.40	ppb	#	77
5) Vinyl chloride	1.27	62	3058	0.22	ppb		90
6) Bromomethane	1.52	94	3391	-0.16	ppb	#	78
7) Chloroethane	1.60	64	1210	-0.24	ppb	#	81
8) Dichlorofluoromethane	1.78	67	6584	-1.01	ppb		91
9) Trichlorofluoromethane	1.82	101	4824	0.19	ppb	#	81
10) Acrolein	2.18	55	16398	11.95	ppb		83
11) Acetone	2.34	43	23377	5.44	ppb		95
12) Freon-113	2.30	101	2603	0.17	ppb		84
13) 1,1-DCE	2.28	61	4308	0.22	ppb		94
14) Acetonitrile	2.62	40	5142	13.57	ppb	#	82
15) t-Butanol	2.99	59	4868	10.66	ppb	#	89
17) Iodomethane	2.41	142	6566	0.32	ppb		98
18) Acrylonitrile	3.08	52	1180	0.24	ppb	#	64
19) Methylene chloride	2.79	84	22800	0.17	ppb		96
20) Carbon disulfide	2.47	76	5004	0.29	ppb	#	92
21) Methyl t-butyl ether (MtBE	3.16	73	6910	0.19	ppb		95
22) Trans-1,2-DCE	3.12	61	4411	0.23	ppb	#	84
23) Diisopropyl Ether	3.90	45	7007	0.19	ppb	#	78
24) 1,1-DCA	3.68	63	5700	0.23	ppb	#	88
25) Vinyl Acetate	3.83	43	2989	1.26	ppb	#	72
26) Ethyl tert Butyl Ether	4.46	59	5754	0.17	ppb		96
27) MEK (2-Butanone)	4.64	43	25829	4.29	ppb		99
28) Cis-1,2-DCE	4.57	61	6155	0.27	ppb	#	90
29) 2,2-Dichloropropane	4.57	77	5074	0.23	ppb		99
30) Chloroform	5.05	83	6814	0.24	ppb		95
31) Bromochloromethane	4.90	49	2637	0.24	ppb		95
33) 1,1,1-TCA	5.27	97	5098	0.19	ppb	#	81
34) Cyclohexane	5.33	56	3943	0.18	ppb		97
35) 1,1-Dichloropropene	5.50	75	3934	0.20	ppb	#	73
36) 2,2,4-Trimethylpentane	5.92	57	7668	0.17	ppb		98
38) Carbon Tetrachloride	5.49	117	4614	0.20	ppb	#	75
39) Tert Amyl Methyl Ether	5.99	73	5932	0.17	ppb		94
40) 1,2-DCA	5.77	62	4709	0.24	ppb	#	72
41) Benzene	5.75	78	14895	0.25	ppb		97
42) TCE	6.59	130	3901	0.20	ppb	#	66
43) 2-Pentanone	6.85	43	78394	23.10	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z02.D
Acq On : 01 Mar 21 14:13
Sample : 0.2ug/L HCL 3/1/21
Misc :

Vial: 2
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	1,2-Dichloropropane	6.84	63	3394	0.23 ppb	#	79
45)	Bromodichloromethane	7.18	83	3441	0.19 ppb		91
46)	Methyl Cyclohexane	6.81	83	4201	0.17 ppb		85
47)	Dibromomethane	6.96	174	3022	0.21 ppb		97
48)	MIBK (methyl isobutyl ket	7.92	43	36419	9.69 ppb		96
49)	1-Bromo-2-chloroethane	7.50	144	631	0.22 ppb		82
51)	Cis-1,3-Dichloropropene	7.71	75	3892	0.18 ppb		88
52)	Toluene	8.07	91	15383	0.23 ppb		95
53)	Trans-1,3-Dichloropropene	8.35	75	3400	0.18 ppb	#	92
54)	1,1,2-TCA	8.53	97	2827	0.21 ppb		89
55)	2-Hexanone	8.86	43	25619	9.53 ppb		99
58)	1,2-EDB	9.06	107	2884	0.20 ppb	#	85
59)	Tetrachloroethene	8.69	166	5225	0.22 ppb		96
60)	1-Chlorohexane	9.64	91	3451	0.17 ppb	#	79
61)	1,1,1,2-Tetrachloroethane	9.72	131	3021	0.19 ppb		89
62)	m&p-Xylene	9.90	91	22602	0.40 ppb		92
63)	o-Xylene	10.32	91	10501	0.19 ppb		96
64)	Styrene	10.34	104	6447	0.16 ppb		94
66)	1,3-Dichloropropane	8.71	76	4463	0.20 ppb	#	81
67)	Dibromochloromethane	8.96	129	2596	1.54 ppb		88
68)	Chlorobenzene	9.63	112	10978	0.23 ppb		94
69)	Ethylbenzene	9.77	91	14727	0.20 ppb		97
70)	Bromoform	10.52	173	1843	2.22 ppb	#	79
72)	Isopropylbenzene	10.74	105	13274	0.17 ppb	#	84
73)	1,1,2,2-Tetrachloroethane	11.05	83	3211	0.19 ppb	#	94
74)	1,2,3-Trichloropropane	11.09	110	1286	0.19 ppb	#	63
75)	t-1,4-Dichloro-2-Butene	11.12	53	698	0.18 ppb	#	14
76)	Bromobenzene	11.04	77	6116	0.23 ppb	#	81
77)	n-Propylbenzene	11.19	91	15769	0.18 ppb		99
78)	4-Ethyltoluene	11.31	105	13831	0.18 ppb		95
79)	2-Chlorotoluene	11.38	91	12684	0.21 ppb		94
80)	1,3,5-Trimethylbenzene	11.38	105	11319	0.17 ppb	#	82
81)	4-Chlorotoluene	11.38	91	12684	0.21 ppb		94
82)	Tert-Butylbenzene	11.74	119	10490	0.17 ppb		100
83)	1,2,4-Trimethylbenzene	11.79	105	11021	0.17 ppb		94
84)	Sec-Butylbenzene	11.98	105	13815	0.17 ppb	#	88
85)	p-Isopropyltoluene	12.14	119	14487	0.19 ppb	#	84
86)	Benzyl Chloride	12.32	91	1998	2.03 ppb	#	90
87)	1,3-DCB	12.17	146	10949	0.23 ppb	#	68
88)	1,4-DCB	12.57	146	8773	0.20 ppb		95
89)	n-Butylbenzene	12.58	91	11136	0.18 ppb		96
90)	1,2-DCB	12.08	146	9893	0.21 ppb	#	84
91)	Hexachloroethane	12.87	201	2136	2.10 ppb	#	78
92)	1,2-Dibromo-3-chloropropan	13.42	157	800	1.73 ppb	#	84
93)	1,2,4-Trichlorobenzene	13.66	180	8378	0.21 ppb		94
94)	Hexachlorobutadiene	14.54	225	4452	0.21 ppb		95
95)	Naphthalene	14.59	128	12215	0.24 ppb	#	90
96)	1,2,3-Trichlorobenzene	14.86	180	6187	0.19 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

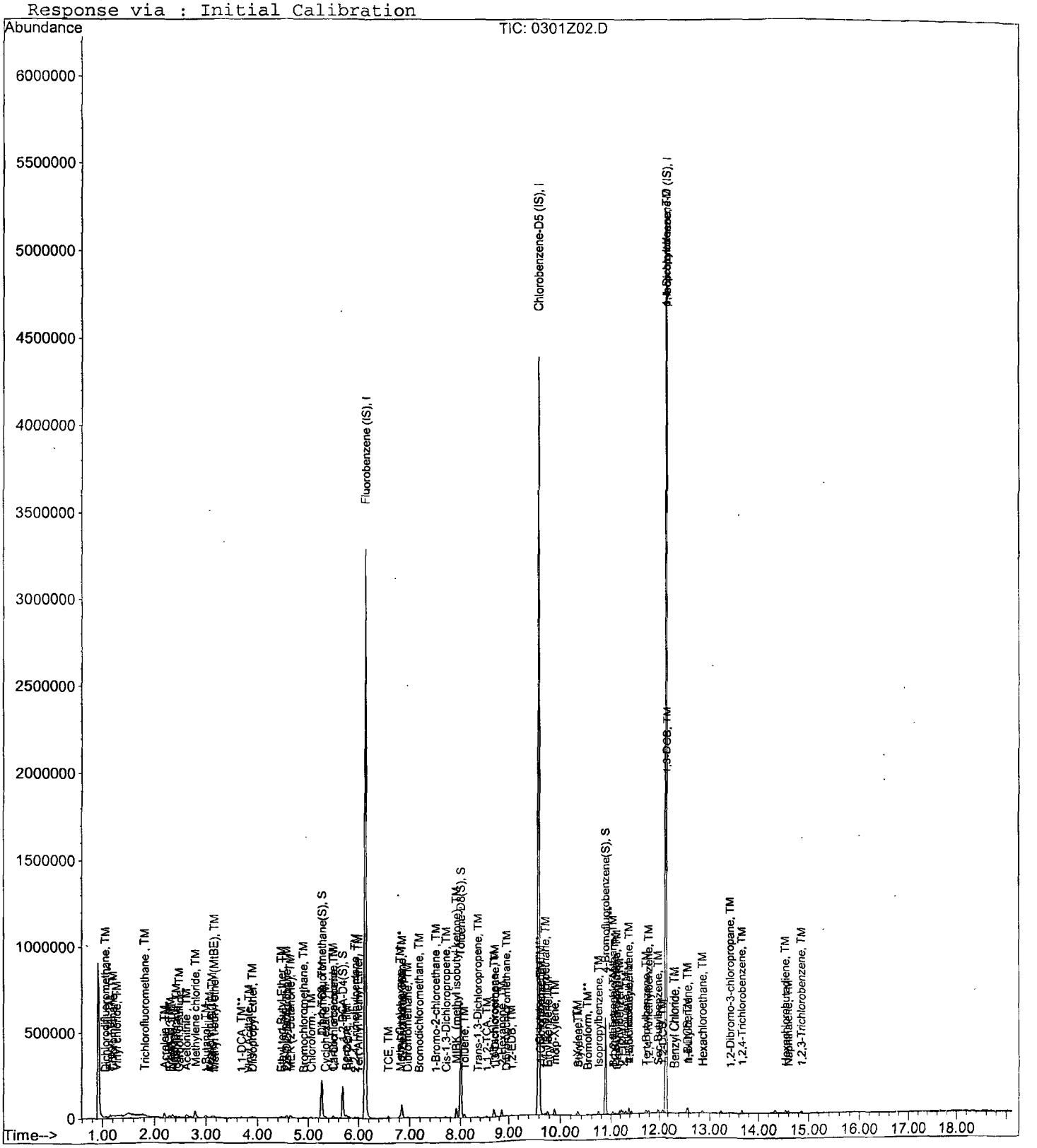
Data File : M:\ZEUS\DATA\210301\0301Z02.D
Acq On : 01 Mar 21 14:13
Sample : 0.2ug/L HCL 3/1/21
Misc :

Vial: 2
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z03.D
Acq On : 01 Mar 21 14:37
Sample : 0.5ug/L HCL 3/1/21
Misc :

Vial: 3
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3330856	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2704105	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1807705	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.26	111	337635	9.45 ppb	0.00
Spiked Amount 25.000			Recovery	= 37.812%	
37) 1,2-DCA-D4(S)	5.68	65	330552	9.69 ppb	0.00
Spiked Amount 25.000			Recovery	= 38.752%	
57) Toluene-D8(S)	8.01	98	1135909	9.58 ppb	0.00
Spiked Amount 25.000			Recovery	= 38.316%	
65) 4-Bromofluorobenzene(S)	10.89	95	450971	9.37 ppb	0.00
Spiked Amount 25.000			Recovery	= 37.492%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.06	85	6034	0.52 ppb	#	84
3) Freon 114	1.16	85	3243	0.50 ppb	#	82
4) Chloromethane	1.21	50	9123	0.61 ppb		98
5) Vinyl chloride	1.27	62	7479	0.54 ppb		97
6) Bromomethane	1.51	94	5301	0.33 ppb		82
7) Chloroethane	1.59	64	2152	0.17 ppb	#	82
8) Dichlorofluoromethane	1.77	67	14264	-0.57 ppb		95
9) Trichlorofluoromethane	1.82	101	13634	0.55 ppb		96
10) Acrolein	2.19	55	32737	24.22 ppb		97
11) Acetone	2.34	43	45337	10.71 ppb		98
12) Freon-113	2.30	101	7981	0.54 ppb		91
13) 1,1-DCE	2.28	61	10289	0.53 ppb		95
14) Acetonitrile	2.62	40	10333	27.67 ppb		89
15) t-Butanol	3.00	59	10804	24.02 ppb		97
16) Methyl Acetate	2.71	43	8149	0.38 ppb	#	82
17) Iodomethane	2.41	142	10577	0.52 ppb		90
18) Acrylonitrile	3.08	52	2617	0.53 ppb	#	84
19) Methylene chloride	2.78	84	21861	0.13 ppb		99
20) Carbon disulfide	2.47	76	9696	0.57 ppb		98
21) Methyl t-butyl ether (MtBE	3.16	73	17008	0.47 ppb		95
22) Trans-1,2-DCE	3.11	61	9700	0.51 ppb		91
23) Diisopropyl Ether	3.90	45	16469	0.46 ppb		96
24) 1,1-DCA	3.69	63	13352	0.54 ppb		97
25) Vinyl Acetate	3.83	43	6867	1.45 ppb	#	93
26) Ethyl tert Butyl Ether	4.46	59	15246	0.45 ppb	#	81
27) MEK (2-Butanone)	4.64	43	52079	8.78 ppb		98
28) Cis-1,2-DCE	4.57	61	12498	0.56 ppb		93
29) 2,2-Dichloropropane	4.57	77	11207	0.52 ppb		93
30) Chloroform	5.05	83	13760	0.50 ppb		98
31) Bromochloromethane	4.90	49	6393	0.59 ppb		94
33) 1,1,1-TCA	5.27	97	13468	0.52 ppb	#	93
34) Cyclohexane	5.33	56	10855	0.51 ppb		89
35) 1,1-Dichloropropene	5.49	75	9899	0.52 ppb		95
36) 2,2,4-Trimethylpentane	5.93	57	20256	0.45 ppb		98
38) Carbon Tetrachloride	5.49	117	11502	0.50 ppb		97
39) Tert Amyl Methyl Ether	5.98	73	13650	0.41 ppb		91
40) 1,2-DCA	5.78	62	10959	0.57 ppb		99
41) Benzene	5.75	78	32514	0.55 ppb	#	90
42) TCE	6.58	130	9930	0.52 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z03.D
Acq On : 01 Mar 21 14:37
Sample : 0.5ug/L HCL 3/1/21
Misc :

Vial: 3
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43) 2-Pentanone	6.85	43	176391	31.52	ppb		99
44) 1,2-Dichloropropane	6.84	63	7473	0.52	ppb	#	79
45) Bromodichloromethane	7.18	83	8448	0.47	ppb		86
46) Methyl Cyclohexane	6.81	83	11060	0.46	ppb		99
47) Dibromomethane	6.97	174	7530	0.52	ppb		90
48) MIBK (methyl isobutyl ket	7.92	43	83965	13.12	ppb		97
49) 1-Bromo-2-chloroethane	7.51	144	1386	0.48	ppb		86
51) Cis-1,3-Dichloropropene	7.71	75	8869	0.42	ppb		89
52) Toluene	8.08	91	33147	0.51	ppb		91
53) Trans-1,3-Dichloropropene	8.35	75	8328	0.44	ppb	#	90
54) 1,1,2-TCA	8.54	97	6011	0.46	ppb		93
55) 2-Hexanone	8.86	43	55712	12.75	ppb		96
58) 1,2-EDB	9.07	107	6178	0.44	ppb		95
59) Tetrachloroethene	8.69	166	12570	0.53	ppb		91
60) 1-Chlorohexane	9.64	91	8404	0.43	ppb	#	91
61) 1,1,1,2-Tetrachloroethane	9.73	131	6823	0.44	ppb		91
62) m&p-Xylene	9.90	91	53142	0.96	ppb		92
63) o-Xylene	10.32	91	26380	0.48	ppb		90
64) Styrene	10.34	104	16059	0.40	ppb		97
66) 1,3-Dichloropropane	8.71	76	10459	0.49	ppb		93
67) Dibromochloromethane	8.96	129	6044	1.73	ppb		95
68) Chlorobenzene	9.63	112	24403	0.53	ppb		93
69) Ethylbenzene	9.77	91	34300	0.48	ppb		96
70) Bromoform	10.51	173	4529	2.39	ppb	#	84
72) Isopropylbenzene	10.74	105	33068	0.44	ppb		98
73) 1,1,2,2-Tetrachloroethane	11.05	83	7416	0.44	ppb		94
74) 1,2,3-Trichloropropane	11.09	110	2773	0.43	ppb		93
75) t-1,4-Dichloro-2-Butene	11.12	53	1619	0.43	ppb	#	44
76) Bromobenzene	11.04	77	14056	0.53	ppb		89
77) n-Propylbenzene	11.19	91	38837	0.46	ppb		92
78) 4-Ethyltoluene	11.31	105	33368	0.45	ppb		97
79) 2-Chlorotoluene	11.38	91	28964	0.48	ppb		94
80) 1,3,5-Trimethylbenzene	11.38	105	28892	0.45	ppb		86
81) 4-Chlorotoluene	11.38	91	28964	0.48	ppb		94
82) Tert-Butylbenzene	11.74	119	26827	0.45	ppb		100
83) 1,2,4-Trimethylbenzene	11.79	105	26316	0.41	ppb		98
84) Sec-Butylbenzene	11.98	105	34699	0.43	ppb		98
85) p-Isopropyltoluene	12.14	119	35902	0.47	ppb		98
86) Benzyl Chloride	12.32	91	4986	2.21	ppb	#	89
87) 1,3-DCB	12.17	146	25325	0.54	ppb	#	92
88) 1,4-DCB	12.58	146	22017	0.52	ppb		99
89) n-Butylbenzene	12.59	91	25692	0.42	ppb		91
90) 1,2-DCB	12.07	146	22702	0.49	ppb		96
91) Hexachloroethane	12.86	201	5130	2.26	ppb		92
92) 1,2-Dibromo-3-chloropropan	13.41	157	1898	1.90	ppb	#	64
93) 1,2,4-Trichlorobenzene	13.67	180	18659	0.48	ppb		92
94) Hexachlorobutadiene	14.54	225	10440	0.50	ppb		92
95) Naphthalene	14.60	128	26269	0.43	ppb		99
96) 1,2,3-Trichlorobenzene	14.86	180	14831	0.48	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

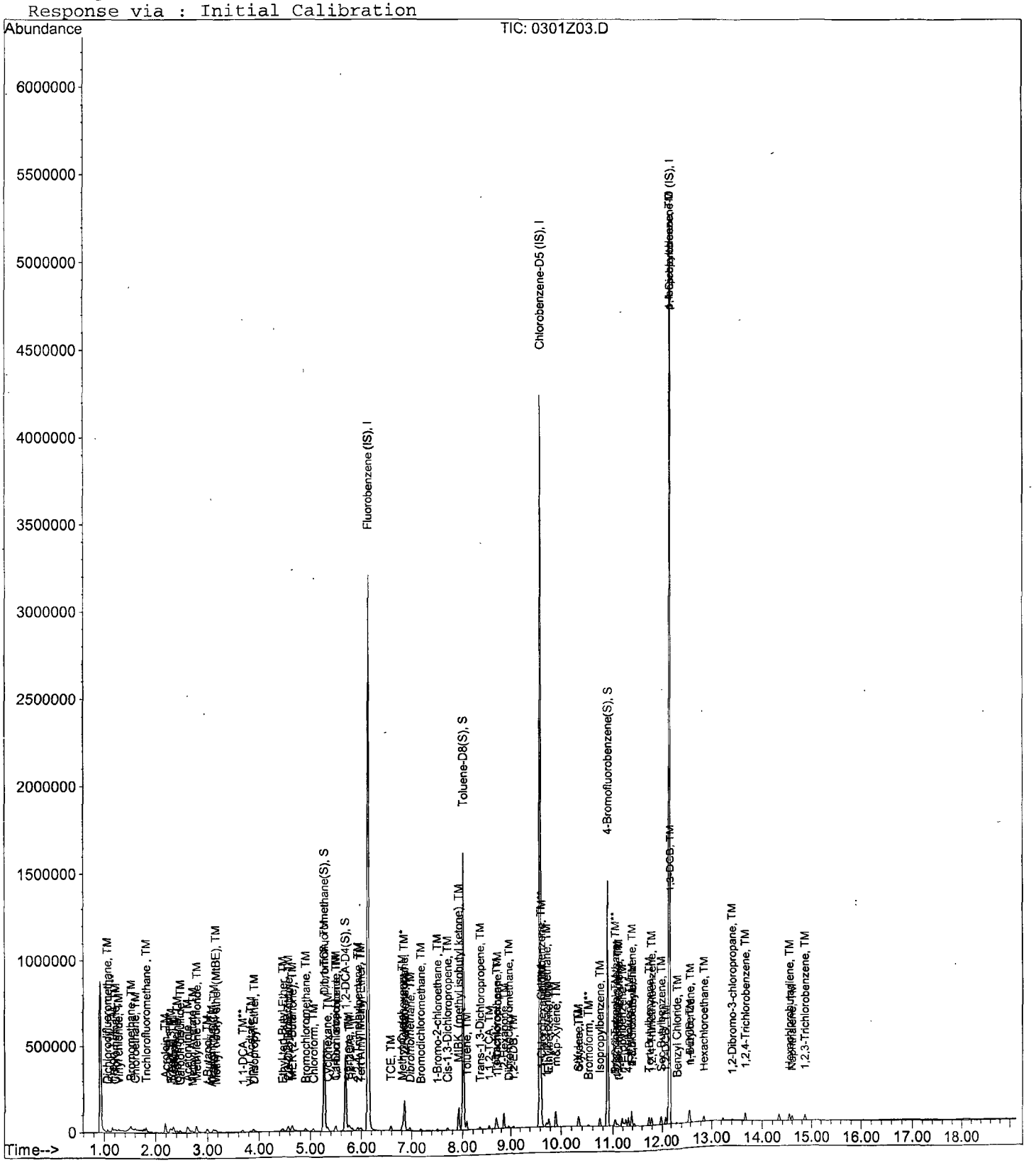
Data File : M:\ZEUS\DATA\210301\0301Z03.D
Acq On : 01 Mar 21 14:37
Sample : 0.5ug/L HCL 3/1/21
Misc :

Vial: 3
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z04.D
Acq On : 01 Mar 21 15:00
Sample : 1ug/L HCL 3/1/21
Misc :

Vial: 4
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3304084	25.00	ppb		0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2673964	25.00	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1794147	25.00	ppb		0.00
System Monitoring Compounds							
32) Dibromofluoromethane(S)	5.26	111	339439	9.58	ppb		0.00
Spiked Amount 25.000			Recovery	=	38.324%		
37) 1,2-DCA-D4(S)	5.68	65	328735	9.71	ppb		0.00
Spiked Amount 25.000			Recovery	=	38.852%		
57) Toluene-D8(S)	8.01	98	1139803	9.72	ppb		0.00
Spiked Amount 25.000			Recovery	=	38.880%		
65) 4-Bromofluorobenzene(S)	10.89	95	448273	9.42	ppb		0.00
Spiked Amount 25.000			Recovery	=	37.688%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.06	85	13880	1.20	ppb		94
3) Freon 114	1.16	85	8237	1.28	ppb		89
4) Chloromethane	1.21	50	17482	1.18	ppb		97
5) Vinyl chloride	1.27	62	14609	1.07	ppb		100
6) Bromomethane	1.52	94	7347	0.85	ppb		83
7) Chloroethane	1.60	64	4197	1.05	ppb		92
8) Dichlorofluoromethane	1.77	67	26948	0.15	ppb		98
9) Trichlorofluoromethane	1.82	101	28235	1.16	ppb		97
10) Acrolein	2.19	55	64873	48.39	ppb		98
11) Acetone	2.35	43	81550	19.42	ppb		98
12) Freon-113	2.30	101	16094	1.09	ppb		98
13) 1,1-DCE	2.28	61	20836	1.08	ppb		98
14) Acetonitrile	2.62	40	18401	49.68	ppb		92
15) t-Butanol	2.99	59	19888	44.57	ppb		100
16) Methyl Acetate	2.71	43	12313	0.80	ppb	#	81
17) Iodomethane	2.41	142	20013	0.99	ppb		100
18) Acrylonitrile	3.08	52	5206	1.07	ppb	#	80
19) Methylene chloride	2.79	84	28993	0.61	ppb		90
20) Carbon disulfide	2.47	76	19320	1.15	ppb		97
21) Methyl t-butyl ether (MtBE	3.17	73	32434	0.90	ppb		97
22) Trans-1,2-DCE	3.12	61	20064	1.06	ppb		99
23) Diisopropyl Ether	3.90	45	30334	0.86	ppb		98
24) 1,1-DCA	3.69	63	26086	1.06	ppb	#	91
25) Vinyl Acetate	3.83	43	10940	1.65	ppb		98
26) Ethyl tert Butyl Ether	4.47	59	28433	0.84	ppb		88
27) MEK (2-Butanone)	4.64	43	99384	16.90	ppb		97
28) Cis-1,2-DCE	4.58	61	24223	1.08	ppb		92
29) 2,2-Dichloropropane	4.57	77	22552	1.06	ppb		92
30) Chloroform	5.06	83	29129	1.06	ppb		93
31) Bromochloromethane	4.90	49	11565	1.08	ppb		87
33) 1,1,1-TCA	5.27	97	26301	1.02	ppb		97
34) Cyclohexane	5.33	56	21606	1.02	ppb		93
35) 1,1-Dichloropropene	5.50	75	18675	0.99	ppb	#	89
36) 2,2,4-Trimethylpentane	5.92	57	43117	0.98	ppb		97
38) Carbon Tetrachloride	5.49	117	22886	1.00	ppb		94
39) Tert Amyl Methyl Ether	5.99	73	27725	0.84	ppb		91
40) 1,2-DCA	5.78	62	20647	1.08	ppb	#	92
41) Benzene	5.75	78	60484	1.02	ppb		99
42) TCE	6.59	130	18439	0.98	ppb		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z04.D
Acq On : 01 Mar 21 15:00
Sample : 1ug/L HCL 3/1/21
Misc :

Vial: 4
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43) 2-Pentanone	6.85	43	363604	47.67	ppb		99
44) 1,2-Dichloropropane	6.83	63	15188	1.06	ppb	#	91
45) Bromodichloromethane	7.18	83	15317	0.86	ppb		99
46) Methyl Cyclohexane	6.81	83	22867	0.96	ppb		98
47) Dibromomethane	6.97	174	13598	0.95	ppb		97
48) MIBK (methyl isobutyl ket	7.92	43	172472	19.55	ppb		98
49) 1-Bromo-2-chloroethane	7.51	144	2682	0.94	ppb	#	80
51) Cis-1,3-Dichloropropene	7.71	75	17623	0.84	ppb		91
52) Toluene	8.08	91	65361	1.02	ppb		99
53) Trans-1,3-Dichloropropene	8.34	75	15646	0.83	ppb		96
54) 1,1,2-TCA	8.54	97	11888	0.91	ppb	#	82
55) 2-Hexanone	8.86	43	116603	19.30	ppb		94
58) 1,2-EDB	9.07	107	12123	0.87	ppb	#	91
59) Tetrachloroethene	8.69	166	23910	1.02	ppb		93
60) 1-Chlorohexane	9.64	91	19227	0.98	ppb		97
61) 1,1,1,2-Tetrachloroethane	9.73	131	13622	0.88	ppb		96
62) m&p-Xylene	9.90	91	107480	1.97	ppb		96
63) o-Xylene	10.33	91	49593	0.90	ppb		98
64) Styrene	10.34	104	32536	0.81	ppb		97
66) 1,3-Dichloropropane	8.71	76	19987	0.95	ppb		97
67) Dibromochloromethane	8.96	129	11385	2.04	ppb		97
68) Chlorobenzene	9.63	112	46509	1.02	ppb		98
69) Ethylbenzene	9.77	91	67992	0.97	ppb		100
70) Bromoform	10.52	173	8793	2.66	ppb		89
72) Isopropylbenzene	10.74	105	65585	0.88	ppb		99
73) 1,1,2,2-Tetrachloroethane	11.05	83	14195	0.85	ppb	#	98
74) 1,2,3-Trichloropropane	11.09	110	5368	0.83	ppb	#	77
75) t-1,4-Dichloro-2-Butene	11.12	53	2969	0.80	ppb	#	76
76) Bromobenzene	11.04	77	25255	0.95	ppb		97
77) n-Propylbenzene	11.19	91	75754	0.90	ppb		98
78) 4-Ethyltoluene	11.31	105	66185	0.90	ppb		92
79) 2-Chlorotoluene	11.38	91	58474	0.98	ppb		99
80) 1,3,5-Trimethylbenzene	11.39	105	58596	0.92	ppb		100
81) 4-Chlorotoluene	11.38	91	58474	0.98	ppb		99
82) Tert-Butylbenzene	11.73	119	57436	0.97	ppb		92
83) 1,2,4-Trimethylbenzene	11.79	105	56079	0.88	ppb		96
84) Sec-Butylbenzene	11.98	105	72301	0.90	ppb		97
85) p-Isopropyltoluene	12.14	119	68872	0.92	ppb		97
86) Benzyl Chloride	12.32	91	9664	2.49	ppb	#	90
87) 1,3-DCB	12.17	146	45407	0.98	ppb		90
88) 1,4-DCB	12.57	146	39597	0.94	ppb		96
89) n-Butylbenzene	12.59	91	52460	0.86	ppb		97
90) 1,2-DCB	12.07	146	44909	0.99	ppb		98
91) Hexachloroethane	12.86	201	10051	2.54	ppb	#	72
92) 1,2-Dibromo-3-chloropropan	13.41	157	3335	2.12	ppb	#	81
93) 1,2,4-Trichlorobenzene	13.66	180	36271	0.95	ppb		98
94) Hexachlorobutadiene	14.54	225	19841	0.95	ppb		95
95) Naphthalene	14.59	128	49418	0.74	ppb		98
96) 1,2,3-Trichlorobenzene	14.86	180	27640	0.89	ppb		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report

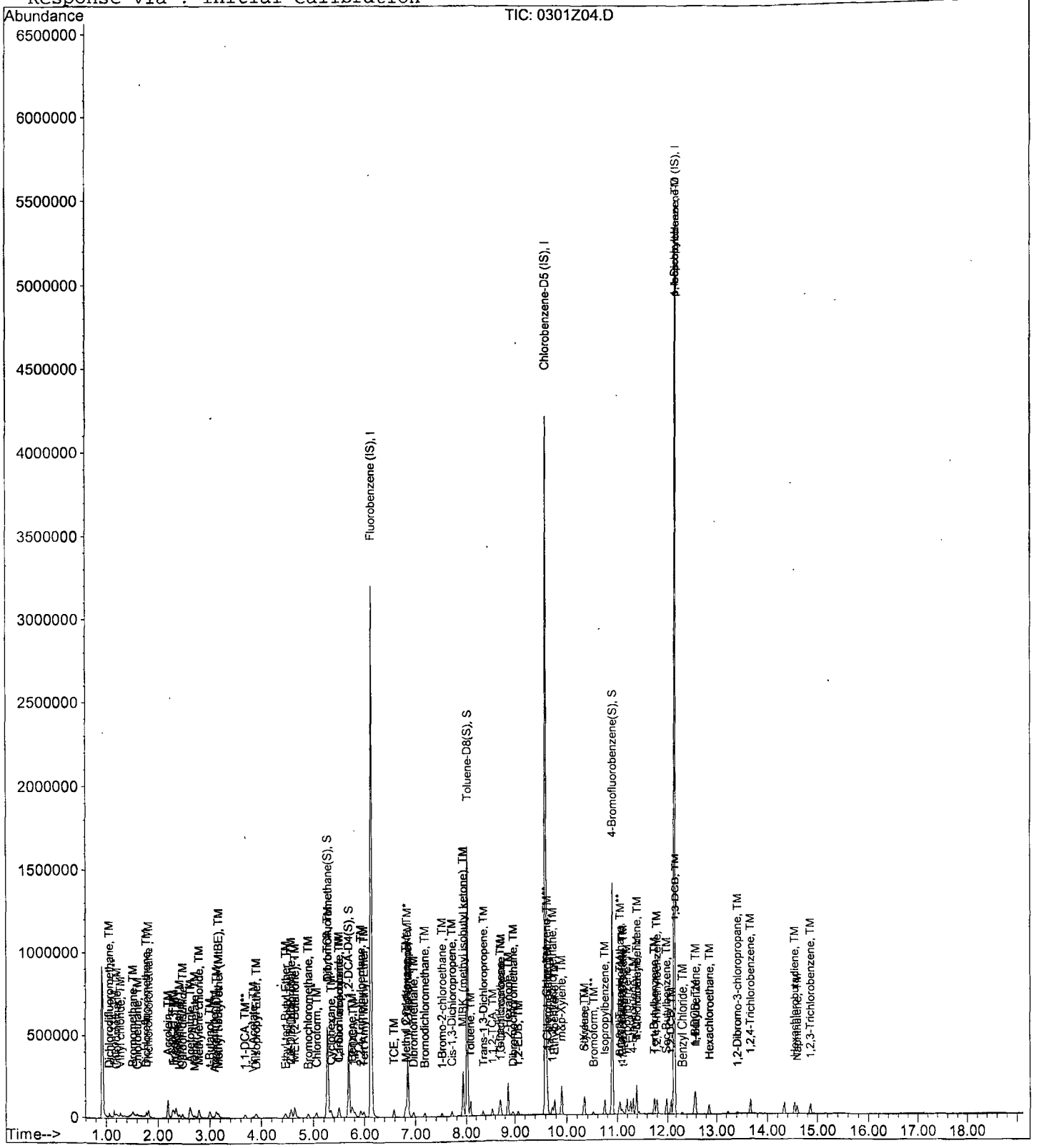
Data File : M:\ZEUS\DATA\210301\0301Z04.D
Acq On : 01 Mar 21 15:00
Sample : 1ug/L HCL 3/1/21
Misc :

Vial: 4
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z05.D
Acq On : 01 Mar 21 15:23
Sample : 5ug/L HCL 3/1/21
Misc :

Vial: 5
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3383647	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2726995	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1809908	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.26	111	948725	26.15 ppb	0.00
Spiked Amount 25.000			Recovery	= 104.592%	
37) 1,2-DCA-D4(S)	5.68	65	904011	26.08 ppb	0.00
Spiked Amount 25.000			Recovery	= 104.328%	
57) Toluene-D8(S)	8.01	98	3214276	26.88 ppb	0.00
Spiked Amount 25.000			Recovery	= 107.508%	
65) 4-Bromofluorobenzene(S)	10.88	95	1293768	26.66 ppb	0.00
Spiked Amount 25.000			Recovery	= 106.652%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.06	85	57840	4.87 ppb	98
3) Freon 114	1.15	85	32896	4.99 ppb	99
4) Chloromethane	1.21	50	71415	4.70 ppb	94
5) Vinyl chloride	1.27	62	67781	4.85 ppb	97
6) Bromomethane	1.51	94	24240	4.94 ppb	95
7) Chloroethane	1.59	64	13757	5.00 ppb	98
8) Dichlorofluoromethane	1.77	67	119891	5.23 ppb	94
9) Trichlorofluoromethane	1.81	101	125779	5.03 ppb	98
10) Acrolein	2.19	55	140546	102.37 ppb	99
11) Acetone	2.35	43	170398	39.63 ppb	97
12) Freon-113	2.30	101	70157	4.64 ppb	97
13) 1,1-DCE	2.28	61	96649	4.88 ppb	97
14) Acetonitrile	2.62	40	40625	107.10 ppb	98
15) t-Butanol	3.00	59	45792	100.21 ppb	99
16) Methyl Acetate	2.71	43	53140	4.74 ppb	98
17) Iodomethane	2.41	142	94169	4.53 ppb	94
18) Acrylonitrile	3.08	52	24380	4.88 ppb	94
19) Methylene chloride	2.78	84	97506	4.98 ppb	98
20) Carbon disulfide	2.47	76	78720	4.56 ppb	99
21) Methyl t-butyl ether (MtBE	3.16	73	182442	4.96 ppb	99
22) Trans-1,2-DCE	3.12	61	94834	4.90 ppb	91
23) Diisopropyl Ether	3.90	45	176545	4.89 ppb	97
24) 1,1-DCA	3.68	63	122501	4.87 ppb	99
25) Vinyl Acetate	3.83	43	78441	4.82 ppb	100
26) Ethyl tert Butyl Ether	4.46	59	165460	4.78 ppb	99
27) MEK (2-Butanone)	4.64	43	234262	38.89 ppb	95
28) Cis-1,2-DCE	4.57	61	113568	4.97 ppb	98
29) 2,2-Dichloropropane	4.56	77	105174	4.81 ppb	99
30) Chloroform	5.06	83	141604	5.04 ppb	97
31) Bromochloromethane	4.90	49	54823	5.00 ppb	97
33) 1,1,1-TCA	5.27	97	128879	4.90 ppb	95
34) Cyclohexane	5.34	56	100588	4.64 ppb	95
35) 1,1-Dichloropropene	5.50	75	93207	4.82 ppb	99
36) 2,2,4-Trimethylpentane	5.93	57	208813	4.61 ppb	97
38) Carbon Tetrachloride	5.49	117	113155	4.81 ppb	93
39) Tert Amyl Methyl Ether	5.99	73	166434	4.90 ppb	98
40) 1,2-DCA	5.78	62	99265	5.06 ppb	100
41) Benzene	5.75	78	303799	5.02 ppb	97
42) TCE	6.59	130	92676	4.82 ppb	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z05.D
Acq On : 01 Mar 21 15:23
Sample : 5ug/L HCL 3/1/21
Misc :

Vial: 5
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	2-Pentanone	6.85	43	908318	92.46	ppb		98
44)	1,2-Dichloropropane	6.83	63	72971	4.97	ppb		97
45)	Bromodichloromethane	7.18	83	88482	4.85	ppb		93
46)	Methyl Cyclohexane	6.81	83	112215	4.61	ppb		100
47)	Dibromomethane	6.96	174	72394	4.94	ppb		98
48)	MIBK (methyl isobutyl ket	7.92	43	425623	37.07	ppb		97
49)	1-Bromo-2-chloroethane	7.51	144	14430	4.96	ppb		88
51)	Cis-1,3-Dichloropropene	7.71	75	101777	4.76	ppb		96
52)	Toluene	8.08	91	329045	5.00	ppb		98
53)	Trans-1,3-Dichloropropene	8.35	75	89167	4.61	ppb		96
54)	1,1,2-TCA	8.54	97	66660	4.97	ppb		97
55)	2-Hexanone	8.86	43	294105	37.51	ppb		99
58)	1,2-EDB	9.06	107	71104	5.02	ppb		99
59)	Tetrachloroethene	8.69	166	116173	4.84	ppb		93
60)	1-Chlorohexane	9.64	91	99530	5.00	ppb		98
61)	1,1,1,2-Tetrachloroethane	9.73	131	77788	4.94	ppb		94
62)	m&p-Xylene	9.90	91	571765	10.29	ppb		97
63)	o-Xylene	10.33	91	285554	5.11	ppb		99
64)	Styrene	10.34	104	202930	4.95	ppb		97
66)	1,3-Dichloropropane	8.72	76	107206	4.98	ppb		95
67)	Dibromochloromethane	8.96	129	69177	5.22	ppb		91
68)	Chlorobenzene	9.63	112	234432	5.03	ppb		97
69)	Ethylbenzene	9.77	91	364532	5.08	ppb		98
70)	Bromoform	10.52	173	52365	5.34	ppb		94
72)	Isopropylbenzene	10.74	105	370844	4.93	ppb		99
73)	1,1,2,2-Tetrachloroethane	11.05	83	82813	4.90	ppb	#	97
74)	1,2,3-Trichloropropane	11.09	110	33393	5.13	ppb		96
75)	t-1,4-Dichloro-2-Butene	11.12	53	17959	4.79	ppb		83
76)	Bromobenzene	11.04	77	132697	4.97	ppb		98
77)	n-Propylbenzene	11.19	91	427773	5.04	ppb		99
78)	4-Ethyltoluene	11.31	105	379744	5.11	ppb		99
79)	2-Chlorotoluene	11.38	91	308106	5.13	ppb		98
80)	1,3,5-Trimethylbenzene	11.39	105	333380	5.20	ppb		98
81)	4-Chlorotoluene	11.38	91	308106	5.13	ppb		98
82)	Tert-Butylbenzene	11.74	119	290891	4.89	ppb		98
83)	1,2,4-Trimethylbenzene	11.79	105	332646	5.20	ppb		97
84)	Sec-Butylbenzene	11.98	105	407918	5.02	ppb		98
85)	p-Isopropyltoluene	12.14	119	378400	4.99	ppb		98
86)	Benzyl Chloride	12.32	91	54635	5.15	ppb		99
87)	1,3-DCB	12.17	146	234904	5.04	ppb		97
88)	1,4-DCB	12.57	146	211076	4.97	ppb		96
89)	n-Butylbenzene	12.58	91	307343	4.99	ppb		96
90)	1,2-DCB	12.07	146	232029	5.05	ppb		97
91)	Hexachloroethane	12.86	201	57795	5.15	ppb		91
92)	1,2-Dibromo-3-chloropropan	13.41	157	22584	5.03	ppb		97
93)	1,2,4-Trichlorobenzene	13.66	180	190571	4.93	ppb		98
94)	Hexachlorobutadiene	14.54	225	101144	4.80	ppb		97
95)	Naphthalene	14.60	128	332423	4.48	ppb		98
96)	1,2,3-Trichlorobenzene	14.86	180	157166	5.03	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

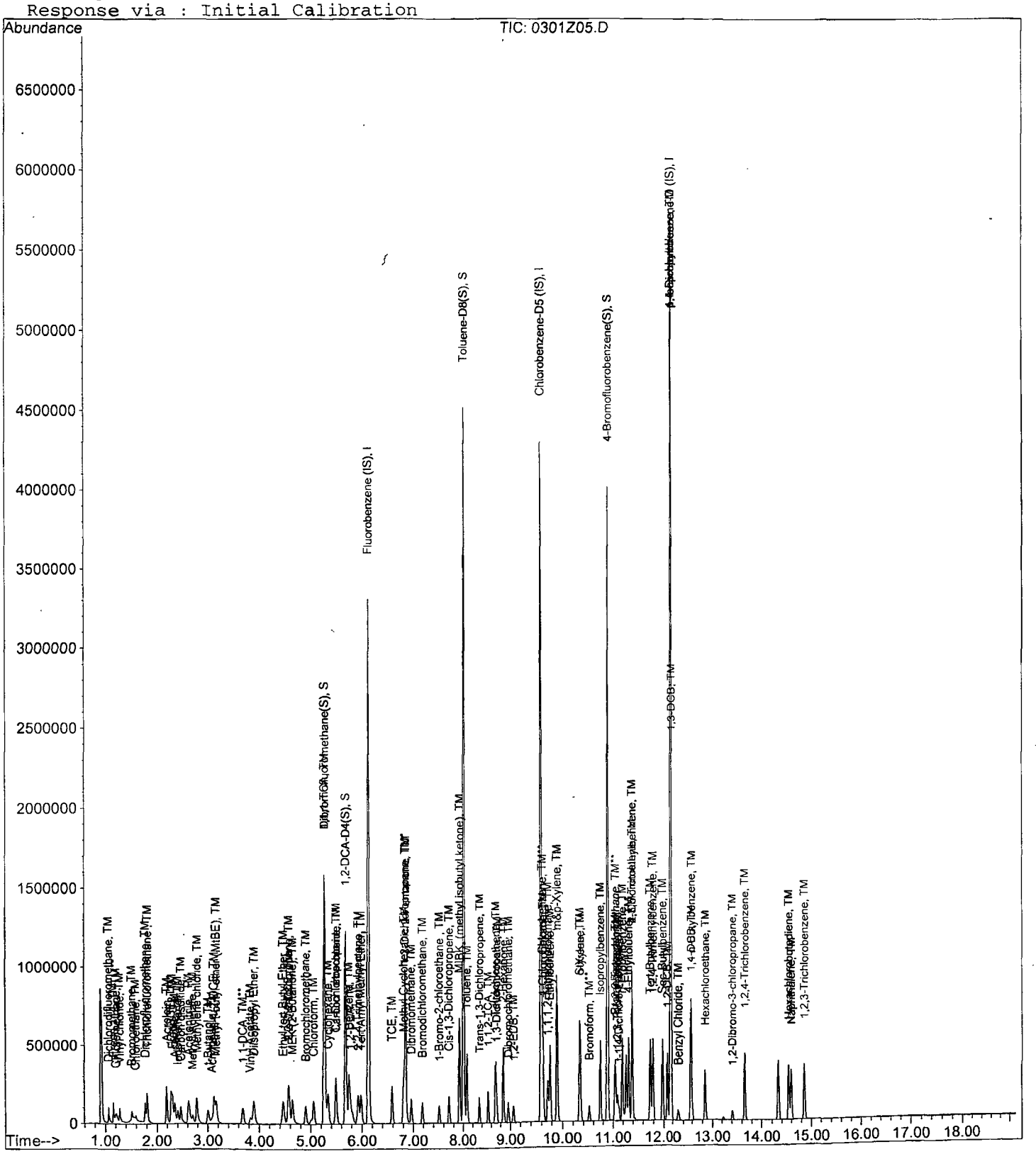
Data File : M:\ZEUS\DATA\210301\0301Z05.D
Acq On : 01 Mar 21 15:23
Sample : 5ug/L HCL 3/1/21
Misc :

Vial: 5
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z06.D Vial: 6
Acq On : 01 Mar 21 15:46 Operator: LP,DG,CH
Sample : 10ug/L HCL 3/1/21 Inst : ZEUS
Misc : Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3412564	25.00	ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2763332	25.00	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1804335	25.00	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	5.27	111	954068	26.07	ppb	0.00
Spiked Amount 25.000			Recovery =	104.288%		
37) 1,2-DCA-D4(S)	5.68	65	899821	25.74	ppb	0.00
Spiked Amount 25.000			Recovery =	102.964%		
57) Toluene-D8(S)	8.01	98	3225741	26.62	ppb	0.00
Spiked Amount 25.000			Recovery =	106.472%		
65) 4-Bromofluorobenzene(S)	10.89	95	1312493	26.69	ppb	0.00
Spiked Amount 25.000			Recovery =	106.772%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.06	85	120224	10.04	ppb	100
3) Freon 114	1.15	85	63006	9.48	ppb	100
4) Chloromethane	1.21	50	144064	9.40	ppb	100
5) Vinyl chloride	1.27	62	135878	9.64	ppb	100
6) Bromomethane	1.52	94	48081	10.67	ppb	100
7) Chloroethane	1.59	64	27376	10.59	ppb	100
8) Dichlorofluoromethane	1.77	67	242815	11.89	ppb	100
9) Trichlorofluoromethane	1.81	101	248695	9.87	ppb	100
10) Acrolein	2.19	55	178407	128.85	ppb	100
11) Acetone	2.35	43	220513	50.85	ppb	100
12) Freon-113	2.30	101	148943	9.77	ppb	100
13) 1,1-DCE	2.28	61	200008	10.01	ppb	100
14) Acetonitrile	2.62	40	49216	128.65	ppb	100
15) t-Butanol	3.01	59	62304	135.19	ppb	100
16) Methyl Acetate	2.71	43	107938	9.99	ppb	100
17) Iodomethane	2.41	142	208657	9.95	ppb	100
18) Acrylonitrile	3.08	52	51384	10.19	ppb	100
19) Methylene chloride	2.79	84	179348	10.15	ppb	100
20) Carbon disulfide	2.47	76	165824	9.52	ppb	100
21) Methyl t-butyl ether (MtBE	3.17	73	383107	10.33	ppb	100
22) Trans-1,2-DCE	3.12	61	198281	10.17	ppb	100
23) Diisopropyl Ether	3.90	45	378833	10.41	ppb	100
24) 1,1-DCA	3.69	63	252067	9.94	ppb	100
25) Vinyl Acetate	3.83	43	173598	9.24	ppb	100
26) Ethyl tert Butyl Ether	4.46	59	354307	10.14	ppb	100
27) MEK (2-Butanone)	4.65	43	312207	51.39	ppb	100
28) Cis-1,2-DCE	4.57	61	228941	9.93	ppb	100
29) 2,2-Dichloropropane	4.57	77	217807	9.87	ppb	100
30) Chloroform	5.06	83	289432	10.22	ppb	100
31) Bromochloromethane	4.90	49	108602	9.81	ppb	100
33) 1,1,1-TCA	5.27	97	268165	10.11	ppb	100
34) Cyclohexane	5.34	56	219186	10.03	ppb	100
35) 1,1-Dichloropropene	5.50	75	197764	10.14	ppb	100
36) 2,2,4-Trimethylpentane	5.93	57	448325	9.82	ppb	100
38) Carbon Tetrachloride	5.49	117	238980	10.06	ppb	100
39) Tert Amyl Methyl Ether	5.99	73	354181	10.33	ppb	100
40) 1,2-DCA	5.78	62	193395	9.77	ppb	100
41) Benzene	5.75	78	614416	10.06	ppb	100
42) TCE	6.59	130	194453	10.03	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z06.D
Acq On : 01 Mar 21 15:46
Sample : 10ug/L HCL 3/1/21
Misc :

Vial: 6
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 2-Pentanone	6.85	43	1261793	121.11 ppb	100
44) 1,2-Dichloropropane	6.84	63	151070	10.20 ppb	100
45) Bromodichloromethane	7.18	83	184608	10.04 ppb	100
46) Methyl Cyclohexane	6.81	83	244411	9.96 ppb	100
47) Dibromomethane	6.96	174	149403	10.10 ppb	100
48) MIBK (methyl isobutyl ket	7.92	43	588608	48.19 ppb	100
49) 1-Bromo-2-chloroethane	7.51	144	29134	9.93 ppb	100
51) Cis-1,3-Dichloropropene	7.71	75	221034	10.25 ppb	100
52) Toluene	8.08	91	676026	10.19 ppb	100
53) Trans-1,3-Dichloropropene	8.35	75	197905	10.15 ppb	100
54) 1,1,2-TCA	8.54	97	138846	10.27 ppb	100
55) 2-Hexanone	8.86	43	403920	48.60 ppb	100
58) 1,2-EDB	9.07	107	150684	10.51 ppb	100
59) Tetrachloroethene	8.69	166	242996	9.99 ppb	100
60) 1-Chlorohexane	9.64	91	209584	10.39 ppb	100
61) 1,1,1,2-Tetrachloroethane	9.73	131	164865	10.33 ppb	100
62) m&p-Xylene	9.90	91	1204388	21.39 ppb	100
63) o-Xylene	10.33	91	601310	10.61 ppb	100
64) Styrene	10.34	104	447783	10.78 ppb	100
66) 1,3-Dichloropropane	8.71	76	227610	10.44 ppb	100
67) Dibromochloromethane	8.96	129	153182	9.74 ppb	100
68) Chlorobenzene	9.63	112	482214	10.21 ppb	100
69) Ethylbenzene	9.77	91	760016	10.45 ppb	100
70) Bromoform	10.52	173	119123	9.37 ppb	100
72) Isopropylbenzene	10.74	105	797042	10.63 ppb	100
73) 1,1,2,2-Tetrachloroethane	11.05	83	177444	10.52 ppb	100
74) 1,2,3-Trichloropropane	11.09	110	70102	10.80 ppb	100
75) t-1,4-Dichloro-2-Butene	11.12	53	38221	10.22 ppb	100
76) Bromobenzene	11.04	77	274940	10.33 ppb	100
77) n-Propylbenzene	11.19	91	893917	10.57 ppb	100
78) 4-Ethyltoluene	11.31	105	797231	10.75 ppb	100
79) 2-Chlorotoluene	11.38	91	628987	10.50 ppb	100
80) 1,3,5-Trimethylbenzene	11.39	105	688688	10.77 ppb	100
81) 4-Chlorotoluene	11.38	91	628987	10.50 ppb	100
82) Tert-Butylbenzene	11.74	119	611800	10.31 ppb	100
83) 1,2,4-Trimethylbenzene	11.79	105	679907	10.65 ppb	100
84) Sec-Butylbenzene	11.98	105	862396	10.64 ppb	100
85) p-Isopropyltoluene	12.14	119	795602	10.52 ppb	100
86) Benzyl Chloride	12.32	91	126436	9.42 ppb	100
87) 1,3-DCB	12.17	146	467657	10.06 ppb	100
88) 1,4-DCB	12.57	146	432977	10.22 ppb	100
89) n-Butylbenzene	12.58	91	661265	10.78 ppb	100
90) 1,2-DCB	12.07	146	468247	10.22 ppb	100
91) Hexachloroethane	12.86	201	135596	9.43 ppb	100
92) 1,2-Dibromo-3-chloropropan	13.42	157	51425	9.41 ppb	100
93) 1,2,4-Trichlorobenzene	13.66	180	394343	10.23 ppb	100
94) Hexachlorobutadiene	14.54	225	215269	10.25 ppb	100
95) Naphthalene	14.59	128	732999	9.81 ppb	100
96) 1,2,3-Trichlorobenzene	14.86	180	320144	10.27 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

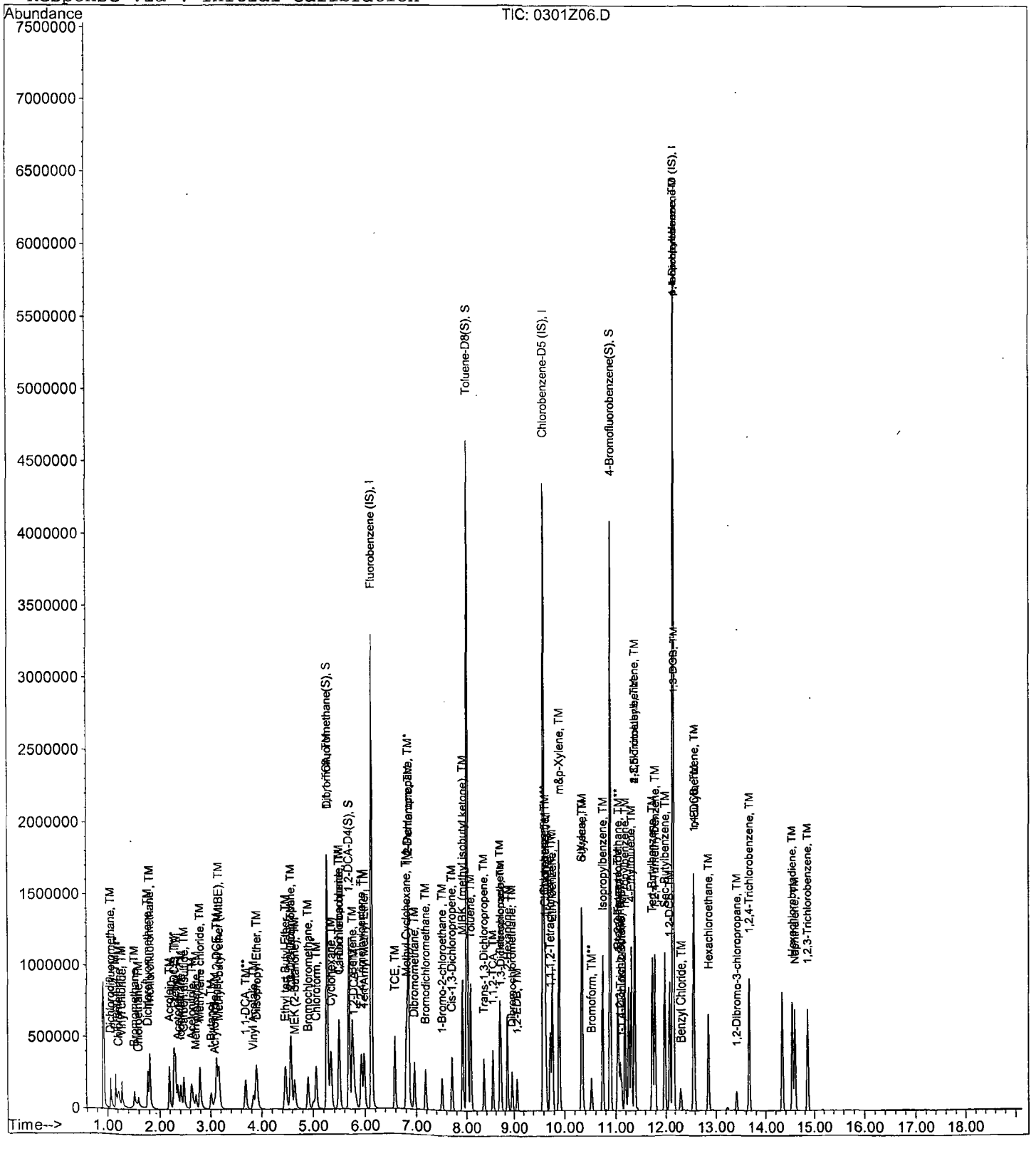
Data File : M:\ZEUS\DATA\210301\0301Z06.D
Acq On : 01 Mar 21 15:46
Sample : 10ug/L HCL 3/1/21
Misc :

Vial: 6
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z07.D
Acq On : 01 Mar 21 16:10
Sample : 20ug/L HCL 3/1/21
Misc :

Vial: 7
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3384416	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2769906	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1799877	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.27	111	1948073	53.68 ppb	0.00
Spiked Amount 25.000			Recovery	= 214.716%	
37) 1,2-DCA-D4(S)	5.68	65	1813110	52.30 ppb	0.00
Spiked Amount 25.000			Recovery	= 209.192%	
57) Toluene-D8(S)	8.01	98	6532581	53.78 ppb	0.00
Spiked Amount 25.000			Recovery	= 215.108%	
65) 4-Bromofluorobenzene(S)	10.89	95	2663828	54.05 ppb	0.00
Spiked Amount 25.000			Recovery	= 216.192%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.06	85	208960	17.59 ppb	100
3) Freon 114	1.15	85	123119	18.68 ppb	100
4) Chloromethane	1.21	50	265764	17.49 ppb	97
5) Vinyl chloride	1.27	62	255206	18.26 ppb	100
6) Bromomethane	1.52	94	82195	19.12 ppb	93
7) Chloroethane	1.59	64	48872	19.67 ppb	97
8) Dichlorofluoromethane	1.77	67	397798	20.53 ppb	99
9) Trichlorofluoromethane	1.80	101	430168	17.21 ppb	98
10) Acrolein	2.19	55	212228	154.55 ppb	97
11) Acetone	2.35	43	264354	61.47 ppb	97
12) Freon-113	2.30	101	288024	19.06 ppb	97
13) 1,1-DCE	2.28	61	373728	18.86 ppb	99
14) Acetonitrile	2.63	40	52774	139.10 ppb	99
15) t-Butanol	3.03	59	73496	160.80 ppb	96
16) Methyl Acetate	2.71	43	205528	19.58 ppb	96
17) Iodomethane	2.41	142	404459	19.45 ppb	99
18) Acrylonitrile	3.09	52	95706	19.15 ppb	94
19) Methylene chloride	2.79	84	326686	19.74 ppb	99
20) Carbon disulfide	2.46	76	316672	18.34 ppb	98
21) Methyl t-butyl ether (MtBE	3.16	73	736681	20.02 ppb	100
22) Trans-1,2-DCE	3.12	61	367182	18.98 ppb	96
23) Diisopropyl Ether	3.90	45	736633	20.41 ppb	99
24) 1,1-DCA	3.68	63	471058	18.72 ppb	97
25) Vinyl Acetate	3.83	43	353496	17.79 ppb	99
26) Ethyl tert Butyl Ether	4.47	59	714045	20.61 ppb	96
27) MEK (2-Butanone)	4.65	43	396425	65.79 ppb	94
28) Cis-1,2-DCE	4.57	61	423366	18.51 ppb	96
29) 2,2-Dichloropropane	4.57	77	414384	18.93 ppb	96
30) Chloroform	5.06	83	530897	18.90 ppb	99
31) Bromochloromethane	4.90	49	199773	18.20 ppb	94
33) 1,1,1-TCA	5.27	97	497377	18.91 ppb	99
34) Cyclohexane	5.34	56	422133	19.48 ppb	96
35) 1,1-Dichloropropene	5.50	75	371863	19.22 ppb	98
36) 2,2,4-Trimethylpentane	5.92	57	920081	20.33 ppb	99
38) Carbon Tetrachloride	5.49	117	453112	19.24 ppb	99
39) Tert Amyl Methyl Ether	5.98	73	704731	20.73 ppb	95
40) 1,2-DCA	5.78	62	359018	18.29 ppb	95
41) Benzene	5.75	78	1142955	18.86 ppb	99
42) TCE	6.59	130	366657	19.07 ppb	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z07.D
Acq On : 01 Mar 21 16:10
Sample : 20ug/L HCL 3/1/21
Misc :

Vial: 7
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 2-Pentanone	6.85	43	1616789	151.64 ppb	98
44) 1,2-Dichloropropane	6.84	63	277517	18.88 ppb	97
45) Bromodichloromethane	7.18	83	360704	19.77 ppb	100
46) Methyl Cyclohexane	6.81	83	494174	20.30 ppb	100
47) Dibromomethane	6.96	174	281783	19.21 ppb	98
48) MIBK (methyl isobutyl ket	7.92	43	751004	59.96 ppb	98
49) 1-Bromo-2-chloroethane	7.51	144	56916	19.56 ppb	98
51) Cis-1,3-Dichloropropene	7.71	75	440603	20.60 ppb	99
52) Toluene	8.08	91	1247817	18.96 ppb	100
53) Trans-1,3-Dichloropropene	8.34	75	397348	20.54 ppb	96
54) 1,1,2-TCA	8.54	97	269693	20.11 ppb	94
55) 2-Hexanone	8.86	43	512295	60.25 ppb	97
58) 1,2-EDB	9.07	107	292271	20.34 ppb	92
59) Tetrachloroethene	8.69	166	458306	18.81 ppb	97
60) 1-Chlorohexane	9.64	91	410780	20.31 ppb	97
61) 1,1,1,2-Tetrachloroethane	9.73	131	327003	20.44 ppb	99
62) m&p-Xylene	9.90	91	2245804	39.79 ppb	99
63) o-Xylene	10.33	91	1143039	20.13 ppb	99
64) Styrene	10.34	104	892024	21.43 ppb	95
66) 1,3-Dichloropropane	8.71	76	431217	19.73 ppb	98
67) Dibromochloromethane	8.96	129	306325	18.05 ppb	91
68) Chlorobenzene	9.63	112	911136	19.24 ppb	99
69) Ethylbenzene	9.77	91	1449168	19.89 ppb	99
70) Bromoform	10.52	173	248465	17.22 ppb	100
72) Isopropylbenzene	10.74	105	1530812	20.46 ppb	99
73) 1,1,2,2-Tetrachloroethane	11.06	83	341500	20.30 ppb	99
74) 1,2,3-Trichloropropane	11.09	110	132177	20.42 ppb	98
75) t-1,4-Dichloro-2-Butene	11.12	53	73817	19.79 ppb	98
76) Bromobenzene	11.04	77	489297	18.43 ppb	95
77) n-Propylbenzene	11.19	91	1676097	19.87 ppb	99
78) 4-Ethyltoluene	11.31	105	1481369	20.03 ppb	99
79) 2-Chlorotoluene	11.38	91	1155146	19.33 ppb	100
80) 1,3,5-Trimethylbenzene	11.39	105	1273267	19.97 ppb	97
81) 4-Chlorotoluene	11.38	91	1155146	19.33 ppb	100
82) Tert-Butylbenzene	11.74	119	1166141	19.71 ppb	97
83) 1,2,4-Trimethylbenzene	11.79	105	1308999	20.56 ppb	98
84) Sec-Butylbenzene	11.98	105	1651385	20.42 ppb	99
85) p-Isopropyltoluene	12.14	119	1503273	19.93 ppb	98
86) Benzyl Chloride	12.32	91	257238	17.22 ppb	98
87) 1,3-DCB	12.17	146	877819	18.94 ppb	96
88) 1,4-DCB	12.57	146	822492	19.46 ppb	98
89) n-Butylbenzene	12.59	91	1274086	20.82 ppb	99
90) 1,2-DCB	12.07	146	884203	19.36 ppb	99
91) Hexachloroethane	12.87	201	276291	17.20 ppb	92
92) 1,2-Dibromo-3-chloropropan	13.42	157	105966	17.71 ppb	93
93) 1,2,4-Trichlorobenzene	13.67	180	761709	19.80 ppb	100
94) Hexachlorobutadiene	14.54	225	408818	19.52 ppb	96
95) Naphthalene	14.60	128	1472882	19.68 ppb	100
96) 1,2,3-Trichlorobenzene	14.86	180	631028	20.30 ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

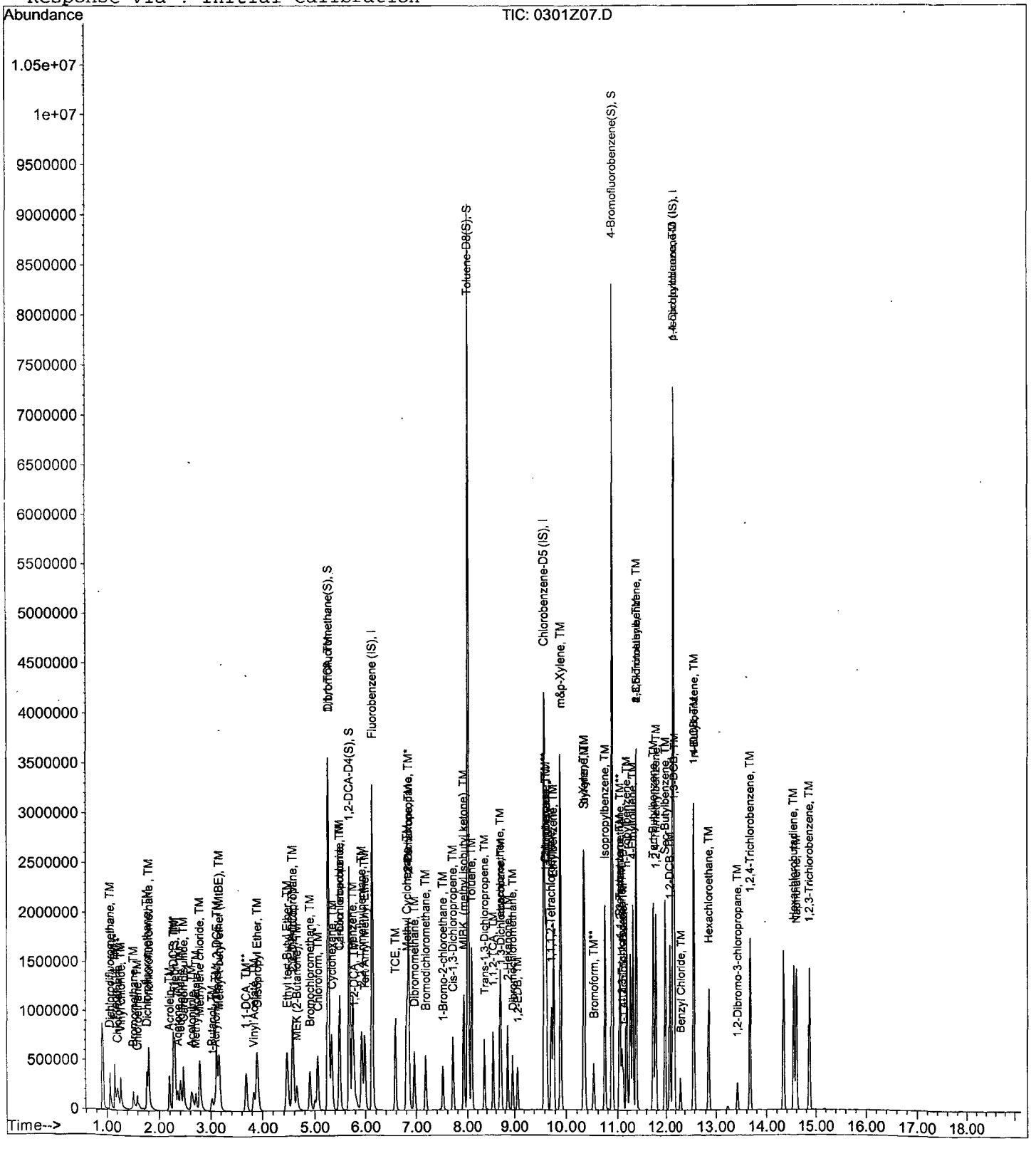
Data File : M:\ZEUS\DATA\210301\0301Z07.D
Acq On : 01 Mar 21 16:10
Sample : 20ug/L HCL 3/1/21
Misc :

Vial: 7
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z08.D
Acq On : 01 Mar 21 16:33
Sample : 40ug/L HCL 3/1/21
Misc :

Vial: 8
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3383900	25.00	ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2810081	25.00	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1801246	25.00	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	5.27	111	1960981	54.04	ppb	0.00
Spiked Amount 25.000			Recovery	=	216.172%	
37) 1,2-DCA-D4(S)	5.68	65	1826576	52.69	ppb	0.00
Spiked Amount 25.000			Recovery	=	210.780%	
57) Toluene-D8(S)	8.01	98	6593557	53.50	ppb	0.00
Spiked Amount 25.000			Recovery	=	214.012%	
65) 4-Bromofluorobenzene(S)	10.89	95	2747003	54.94	ppb	0.00
Spiked Amount 25.000			Recovery	=	219.756%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.06	85	433408	36.50	ppb	96
3) Freon 114	1.15	85	274398	41.64	ppb	90
4) Chloromethane	1.21	50	573618	37.75	ppb	96
5) Vinyl chloride	1.27	62	566854	40.58	ppb	100
6) Bromomethane	1.51	94	172664	41.26	ppb	93
7) Chloroethane	1.58	64	97600	40.02	ppb	94
8) Dichlorofluoromethane	1.76	67	738097	39.27	ppb	99
9) Trichlorofluoromethane	1.80	101	879977	35.21	ppb	97
10) Acrolein	2.19	55	250322	182.32	ppb	100
11) Acetone	2.35	43	349361	81.25	ppb	98
12) Freon-113	2.30	101	620454	41.06	ppb	98
13) 1,1-DCE	2.27	61	790603	39.91	ppb	97
14) Acetonitrile	2.63	40	57878	152.58	ppb	98
15) t-Butanol	3.03	59	79360	173.65	ppb	96
16) Methyl Acetate	2.71	43	430830	41.52	ppb	97
17) Iodomethane	2.40	142	899608	43.27	ppb	99
18) Acrylonitrile	3.08	52	198737	39.76	ppb	96
19) Methylene chloride	2.78	84	663301	41.43	ppb	99
20) Carbon disulfide	2.46	76	683968	39.61	ppb	100
21) Methyl t-butyl ether (MtBE	3.16	73	1565962	42.57	ppb	97
22) Trans-1,2-DCE	3.11	61	775715	40.11	ppb	97
23) Diisopropyl Ether	3.90	45	1581035	43.82	ppb	100
24) 1,1-DCA	3.68	63	1004873	39.95	ppb	99
25) Vinyl Acetate	3.83	43	792339	38.49	ppb	99
26) Ethyl tert Butyl Ether	4.46	59	1552745	44.83	ppb	97
27) MEK (2-Butanone)	4.65	43	539830	89.61	ppb	95
28) Cis-1,2-DCE	4.57	61	890661	38.94	ppb	97
29) 2,2-Dichloropropane	4.56	77	896151	40.95	ppb	99
30) Chloroform	5.06	83	1122639	39.97	ppb	98
31) Bromochloromethane	4.90	49	412242	37.57	ppb	99
33) 1,1,1-TCA	5.27	97	1073213	40.82	ppb	98
34) Cyclohexane	5.33	56	920190	42.46	ppb	94
35) 1,1-Dichloropropene	5.49	75	807492	41.74	ppb	98
36) 2,2,4-Trimethylpentane	5.92	57	2047685	45.24	ppb	99
38) Carbon Tetrachloride	5.49	117	1002808	42.58	ppb	99
39) Tert Amyl Methyl Ether	5.98	73	1541881	45.36	ppb	94
40) 1,2-DCA	5.78	62	747136	38.07	ppb	98
41) Benzene	5.75	78	2402831	39.66	ppb	99
42) TCE	6.59	130	790583	41.12	ppb	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z08.D
Acq On : 01 Mar 21 16:33
Sample : 40ug/L HCL 3/1/21
Misc :

Vial: 8
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	2-Pentanone	6.85	43	1978393	181.88	ppb		99
44)	1,2-Dichloropropane	6.84	63	582774	39.66	ppb	#	96
45)	Bromodichloromethane	7.18	83	805698	44.17	ppb		98
46)	Methyl Cyclohexane	6.81	83	1092660	44.90	ppb		98
47)	Dibromomethane	6.96	174	597933	40.77	ppb		97
48)	MIBK (methyl isobutyl ket	7.92	43	1051365	81.10	ppb		98
49)	1-Bromo-2-chloroethane	7.51	144	122675	42.17	ppb		97
51)	Cis-1,3-Dichloropropene	7.71	75	978713	45.76	ppb		98
52)	Toluene	8.08	91	2682601	40.77	ppb		100
53)	Trans-1,3-Dichloropropene	8.35	75	883759	45.70	ppb		97
54)	1,1,2-TCA	8.54	97	578853	43.17	ppb		97
55)	2-Hexanone	8.86	43	709844	80.85	ppb		98
58)	1,2-EDB	9.07	107	632873	43.40	ppb		95
59)	Tetrachloroethene	8.69	166	994816	40.24	ppb		99
60)	1-Chlorohexane	9.64	91	904726	44.09	ppb		98
61)	1,1,1,2-Tetrachloroethane	9.73	131	717870	44.24	ppb		99
62)	m&p-Xylene	9.90	91	4765883	83.24	ppb		98
63)	o-Xylene	10.33	91	2464878	42.78	ppb		99
64)	Styrene	10.34	104	1960633	46.43	ppb		95
66)	1,3-Dichloropropane	8.71	76	921457	41.56	ppb		98
67)	Dibromochloromethane	8.96	129	699586	38.88	ppb		89
68)	Chlorobenzene	9.63	112	1920040	39.96	ppb		99
69)	Ethylbenzene	9.77	91	3096566	41.88	ppb		100
70)	Bromoform	10.52	173	602689	38.23	ppb		97
72)	Isopropylbenzene	10.74	105	3326182	44.43	ppb		99
73)	1,1,2,2-Tetrachloroethane	11.06	83	758903	45.08	ppb		99
74)	1,2,3-Trichloropropane	11.09	110	286490	44.22	ppb		97
75)	t-1,4-Dichloro-2-Butene	11.12	53	177034	47.43	ppb		83
76)	Bromobenzene	11.04	77	1104960	41.58	ppb		98
77)	n-Propylbenzene	11.19	91	3716719	44.02	ppb		100
78)	4-Ethyltoluene	11.31	105	3207569	43.34	ppb		100
79)	2-Chlorotoluene	11.39	91	2456536	41.08	ppb		99
80)	1,3,5-Trimethylbenzene	11.39	105	2713533	42.52	ppb		98
81)	4-Chlorotoluene	11.39	91	2456536	41.08	ppb		99
82)	Tert-Butylbenzene	11.74	119	2582798	43.62	ppb		99
83)	1,2,4-Trimethylbenzene	11.79	105	2825877	44.36	ppb		100
84)	Sec-Butylbenzene	11.98	105	3593057	44.40	ppb		100
85)	p-Isopropyltoluene	12.14	119	3262971	43.22	ppb		99
86)	Benzyl Chloride	12.32	91	624533	39.04	ppb		98
87)	1,3-DCB	12.17	146	1846781	39.81	ppb		97
88)	1,4-DCB	12.57	146	1732307	40.96	ppb		97
89)	n-Butylbenzene	12.59	91	2785690	45.48	ppb		99
90)	1,2-DCB	12.07	146	1874477	41.00	ppb		99
91)	Hexachloroethane	12.87	201	670512	38.89	ppb	#	86
92)	1,2-Dibromo-3-chloropropan	13.42	157	251058	39.72	ppb		96
93)	1,2,4-Trichlorobenzene	13.67	180	1638181	42.56	ppb		99
94)	Hexachlorobutadiene	14.54	225	889496	42.45	ppb		97
95)	Naphthalene	14.60	128	3157929	42.07	ppb		100
96)	1,2,3-Trichlorobenzene	14.86	180	1325393	42.60	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

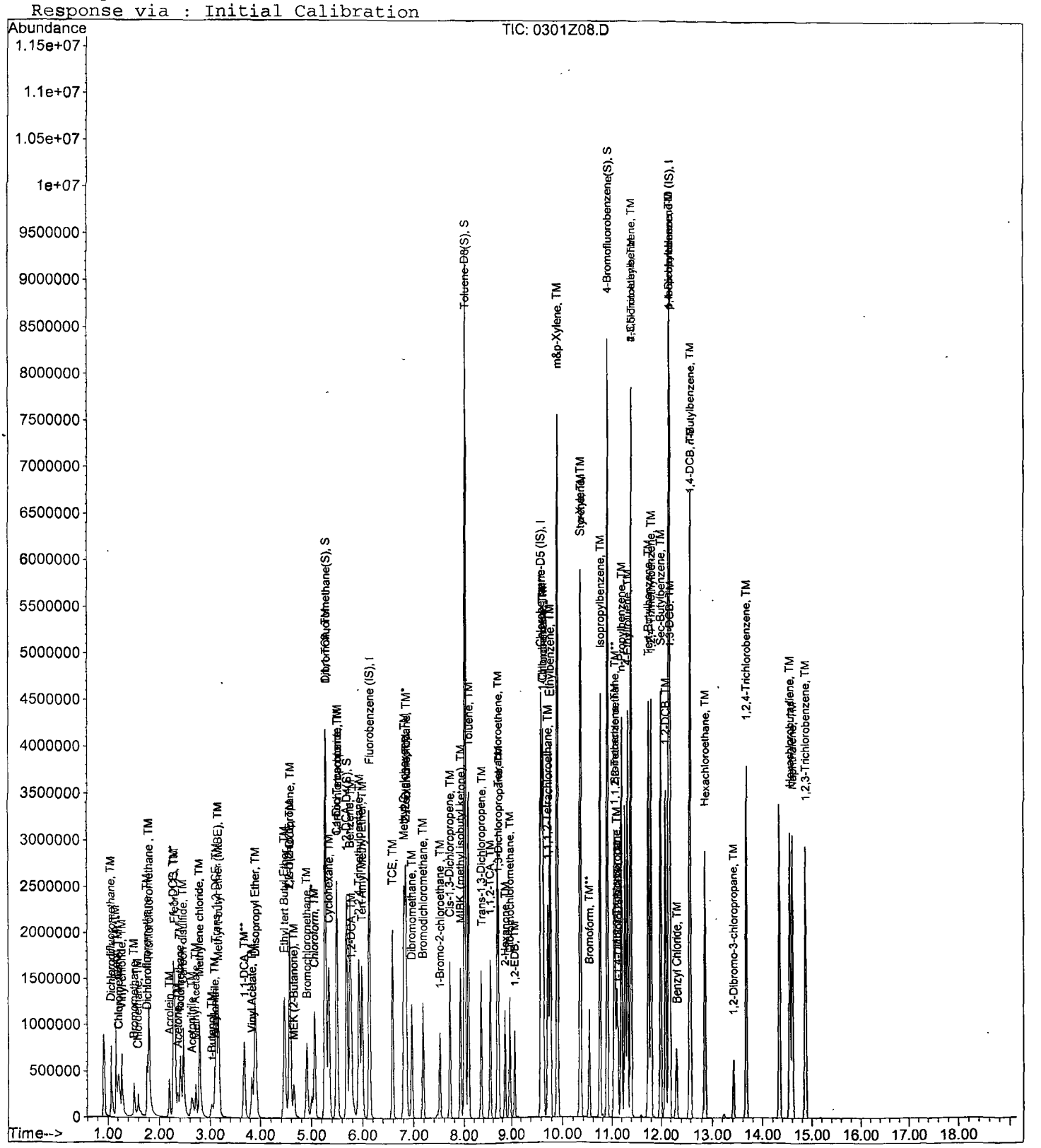
Data File : M:\ZEUS\DATA\210301\0301Z08.D
Acq On : 01 Mar 21 16:33
Sample : 40ug/L HCL 3/1/21
Misc :

Vial: 8
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z09.D
Acq On : 01 Mar 21 16:56
Sample : 100ug/L HCL 3/1/21
Misc :

Vial: 9
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3436506	25.00	ppb		0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2920547	25.00	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1820710	25.00	ppb		0.00
System Monitoring Compounds							
32) Dibromofluoromethane(S)	5.26	111	3912209	106.17	ppb		0.00
Spiked Amount 25.000			Recovery =	424.668%			
37) 1,2-DCA-D4(S)	5.68	65	3698949	105.08	ppb		0.00
Spiked Amount 25.000			Recovery =	420.308%			
57) Toluene-D8(S)	8.01	98	12650167	98.77	ppb		0.00
Spiked Amount 25.000			Recovery =	395.068%			
65) 4-Bromofluorobenzene(S)	10.89	95	5373651	103.41	ppb		0.00
Spiked Amount 25.000			Recovery =	413.624%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.05	85	807360	66.95	ppb		99
3) Freon 114	1.15	85	534688	79.89	ppb		87
4) Chloromethane	1.21	50	1392940	90.28	ppb		98
5) Vinyl chloride	1.27	62	1388660	97.88	ppb		99
6) Bromomethane	1.51	94	417554	99.61	ppb		97
7) Chloroethane	1.58	64	199806	81.44	ppb		98
8) Dichlorofluoromethane	1.76	67	1160334	61.54	ppb		98
9) Trichlorofluoromethane	1.78	101	1439879	56.74	ppb		97
10) Acrolein	2.19	55	261189	187.32	ppb		97
11) Acetone	2.36	43	397105	90.94	ppb		99
12) Freon-113	2.29	101	1458446	95.04	ppb		98
13) 1,1-DCE	2.26	61	1911638	95.01	ppb		98
14) Acetonitrile	2.64	40	50372	130.76	ppb		97
15) t-Butanol	3.06	59	63299	136.39	ppb	#	90
16) Methyl Acetate	2.71	43	1042169	99.49	ppb		97
17) Iodomethane	2.40	142	2162749	102.44	ppb		100
18) Acrylonitrile	3.09	52	468373	92.28	ppb		93
19) Methylene chloride	2.78	84	1588692	99.47	ppb		98
20) Carbon disulfide	2.45	76	1652736	94.24	ppb		99
21) Methyl t-butyl ether (MtBE	3.17	73	3990372	106.80	ppb		98
22) Trans-1,2-DCE	3.11	61	1903644	96.92	ppb		98
23) Diisopropyl Ether	3.90	45	3943309	107.61	ppb		99
24) 1,1-DCA	3.68	63	2443054	95.64	ppb		99
25) Vinyl Acetate	3.83	43	2057714	96.68	ppb		99
26) Ethyl tert Butyl Ether	4.47	59	4021807	114.34	ppb		97
27) MEK (2-Butanone)	4.65	43	648655	106.03	ppb		93
28) Cis-1,2-DCE	4.57	61	2137209	92.02	ppb		98
29) 2,2-Dichloropropane	4.56	77	2191668	98.61	ppb		98
30) Chloroform	5.05	83	2761024	96.80	ppb		99
31) Bromochloromethane	4.90	49	1010402	90.67	ppb		98
33) 1,1,1-TCA	5.26	97	2609217	97.71	ppb		98
34) Cyclohexane	5.33	56	2187583	99.41	ppb		95
35) 1,1-Dichloropropene	5.49	75	1943733	98.94	ppb		99
36) 2,2,4-Trimethylpentane	5.92	57	4883326	106.25	ppb		100
38) Carbon Tetrachloride	5.48	117	2481640	103.77	ppb		100
39) Tert Amyl Methyl Ether	5.99	73	4026014	116.62	ppb		92
40) 1,2-DCA	5.78	62	1858199	93.24	ppb		98
41) Benzene	5.75	78	5805451	94.36	ppb		99
42) TCE	6.59	130	1960602	100.42	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z09.D
Acq On : 01 Mar 21 16:56
Sample : 100ug/L HCL 3/1/21
Misc :

Vial: 9
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	2-Pentanone	6.85	43	2213758	198.72	ppb		99
44)	1,2-Dichloropropane	6.83	63	1431289	95.92	ppb	#	95
45)	Bromodichloromethane	7.18	83	2098075	113.26	ppb		99
46)	Methyl Cyclohexane	6.81	83	2615525	105.83	ppb		100
47)	Dibromomethane	6.96	174	1534503	103.02	ppb		97
48)	MIBK (methyl isobutyl ket	7.92	43	1354710	100.99	ppb		98
49)	1-Bromo-2-chloroethane	7.51	144	315913	106.95	ppb		96
51)	Cis-1,3-Dichloropropene	7.71	75	2527914	116.37	ppb		99
52)	Toluene	8.08	91	6498083	97.25	ppb		99
53)	Trans-1,3-Dichloropropene	8.35	75	2337568	119.02	ppb		96
54)	1,1,2-TCA	8.54	97	1464255	107.53	ppb		97
55)	2-Hexanone	8.86	43	914583	100.73	ppb		98
58)	1,2-EDB	9.07	107	1648689	108.79	ppb		95
59)	Tetrachloroethene	8.69	166	2409474	93.77	ppb		98
60)	1-Chlorohexane	9.64	91	2148711	100.76	ppb		98
61)	1,1,1,2-Tetrachloroethane	9.73	131	1847075	109.51	ppb		99
62)	m&p-Xylene	9.90	91	10889081	183.00	ppb		97
63)	o-Xylene	10.33	91	5902755	98.57	ppb		99
64)	Styrene	10.34	104	4823384	109.90	ppb		96
66)	1,3-Dichloropropane	8.71	76	2319513	100.65	ppb		97
67)	Dibromochloromethane	8.96	129	1928976	100.84	ppb		92
68)	Chlorobenzene	9.63	112	4693427	93.99	ppb		98
69)	Ethylbenzene	9.77	91	7424860	96.63	ppb		99
70)	Bromoform	10.52	173	1719972	101.29	ppb		98
72)	Isopropylbenzene	10.74	105	8000547	105.73	ppb		99
73)	1,1,2,2-Tetrachloroethane	11.06	83	1876359	110.26	ppb		99
74)	1,2,3-Trichloropropane	11.09	110	708612	108.22	ppb		96
75)	t-1,4-Dichloro-2-Butene	11.12	53	445974	118.20	ppb		83
76)	Bromobenzene	11.04	77	2696654	100.40	ppb		96
77)	n-Propylbenzene	11.19	91	8728610	102.28	ppb		99
78)	4-Ethyltoluene	11.32	105	7648801	102.24	ppb		98
79)	2-Chlorotoluene	11.38	91	5946242	98.38	ppb		98
80)	1,3,5-Trimethylbenzene	11.39	105	6433069	99.73	ppb		99
81)	4-Chlorotoluene	11.38	91	5946242	98.38	ppb		98
82)	Tert-Butylbenzene	11.74	119	6215301	103.84	ppb		100
83)	1,2,4-Trimethylbenzene	11.79	105	6766604	105.09	ppb		98
84)	Sec-Butylbenzene	11.98	105	8596790	105.09	ppb		99
85)	p-Isopropyltoluene	12.14	119	7708250	101.01	ppb		98
86)	Benzyl Chloride	12.32	91	1684612	100.97	ppb		97
87)	1,3-DCB	12.17	146	4559203	97.24	ppb		96
88)	1,4-DCB	12.57	146	4316638	100.98	ppb		99
89)	n-Butylbenzene	12.59	91	6497202	104.95	ppb		98
90)	1,2-DCB	12.07	146	4615506	99.88	ppb		99
91)	Hexachloroethane	12.86	201	1818694	101.03	ppb	#	83
92)	1,2-Dibromo-3-chloropropan	13.42	157	659284	100.61	ppb		98
93)	1,2,4-Trichlorobenzene	13.67	180	3991227	102.58	ppb		99
94)	Hexachlorobutadiene	14.54	225	2188674	103.32	ppb		98
95)	Naphthalene	14.60	128	7541339	99.28	ppb		100
96)	1,2,3-Trichlorobenzene	14.86	180	3286347	104.51	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

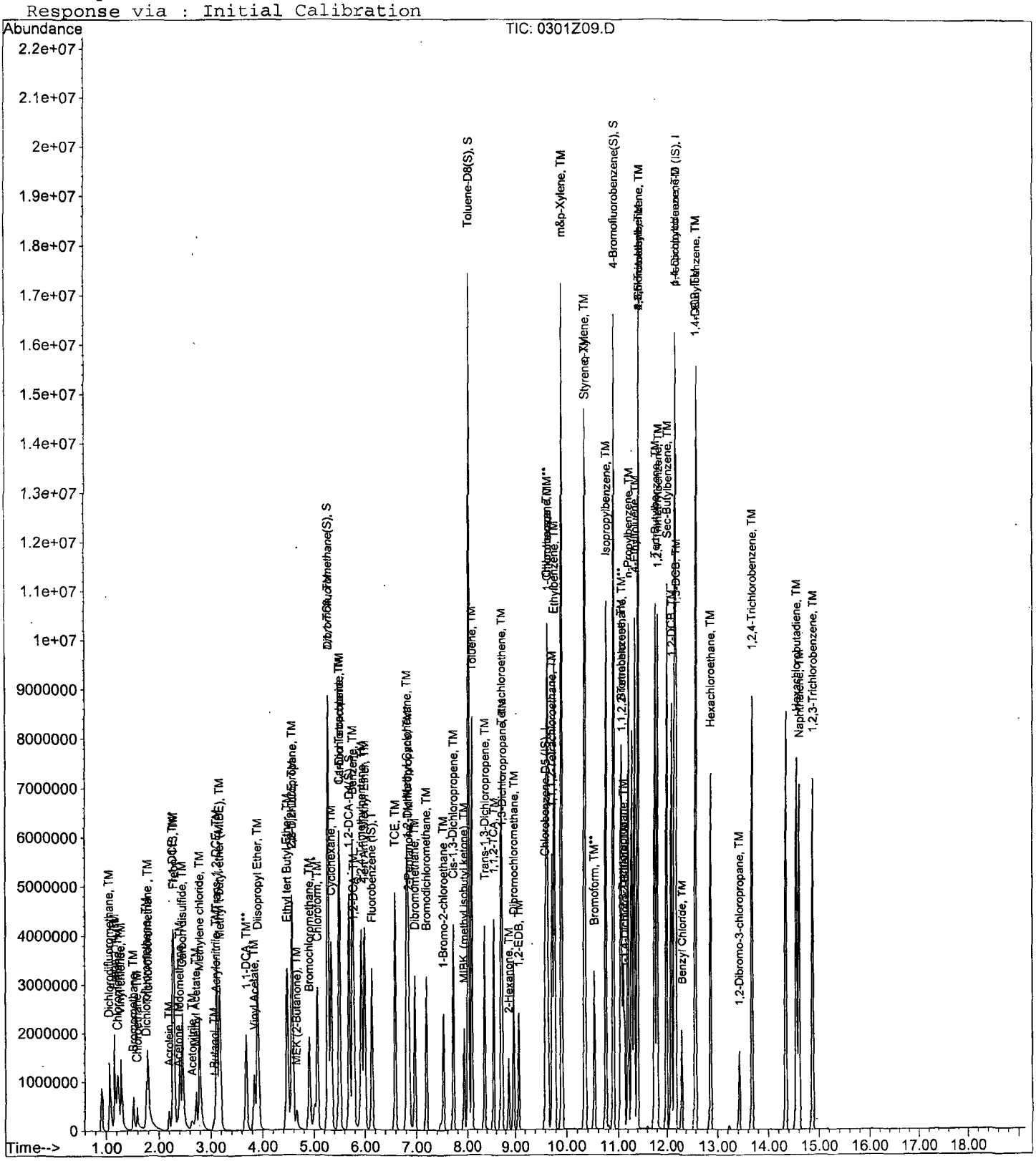
Data File : M:\ZEUS\DATA\210301\0301Z09.D
Acq On : 01 Mar 21 16:56
Sample : 100ug/L HCL 3/1/21
Misc :

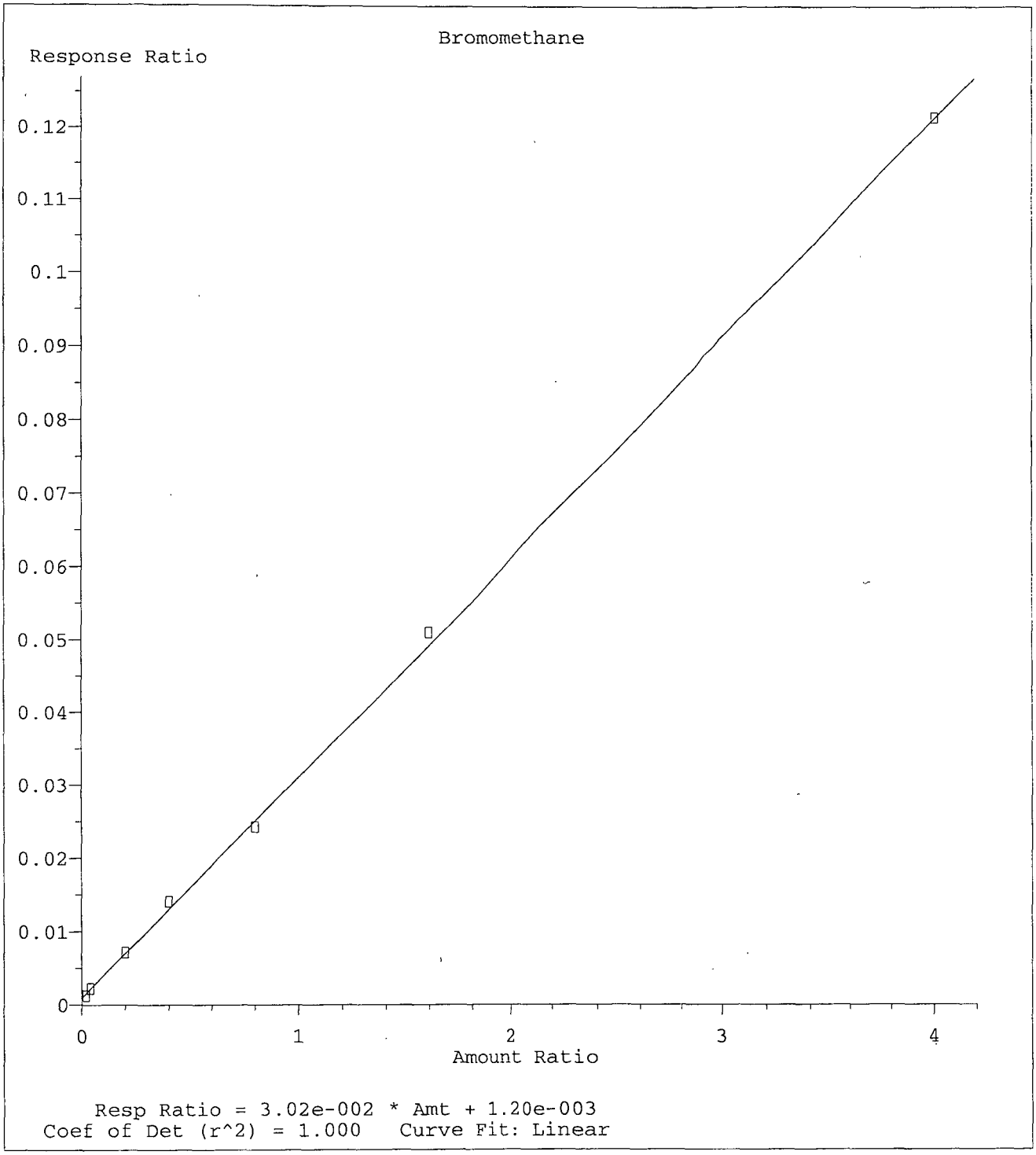
Vial: 9
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

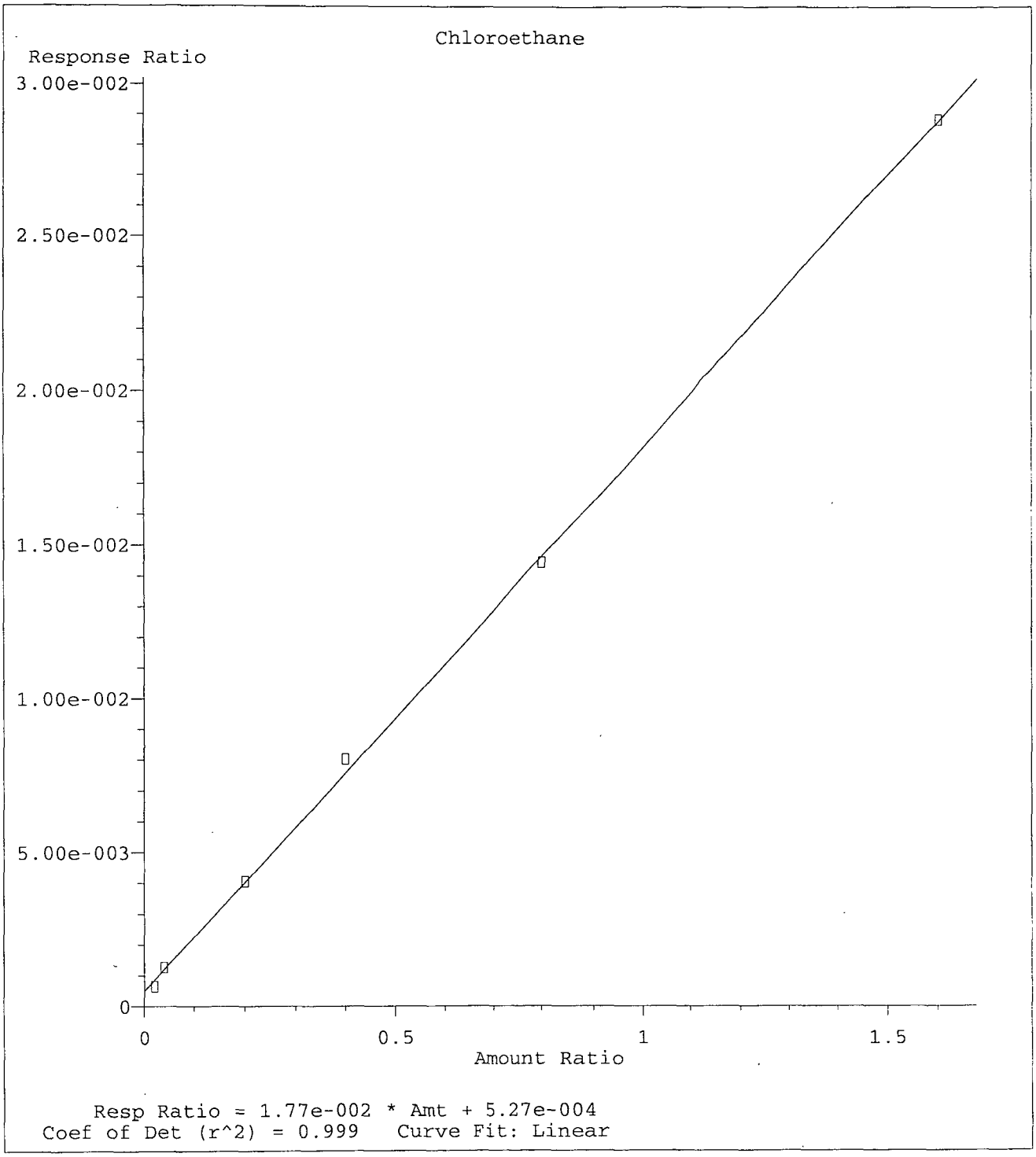
Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration

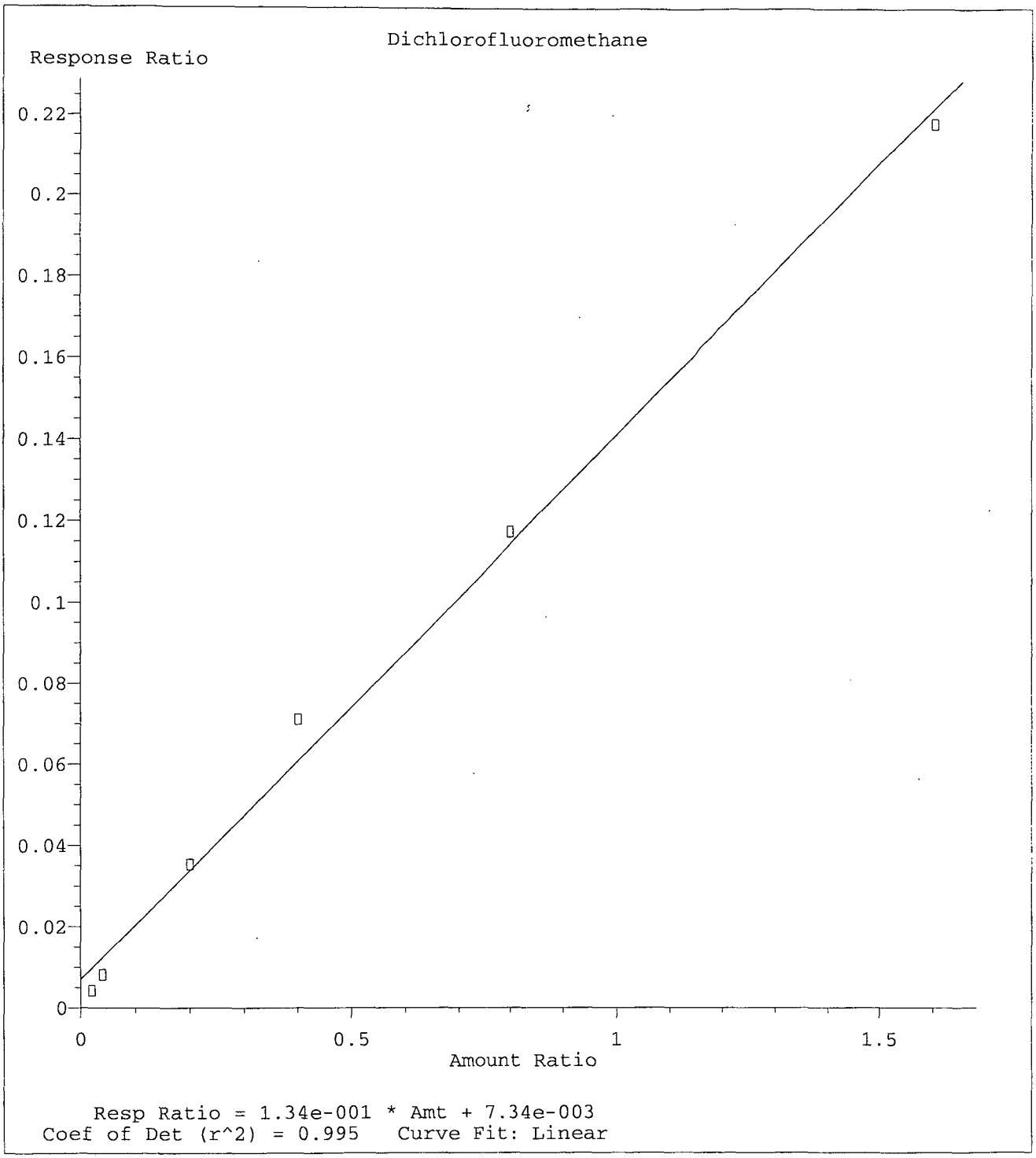




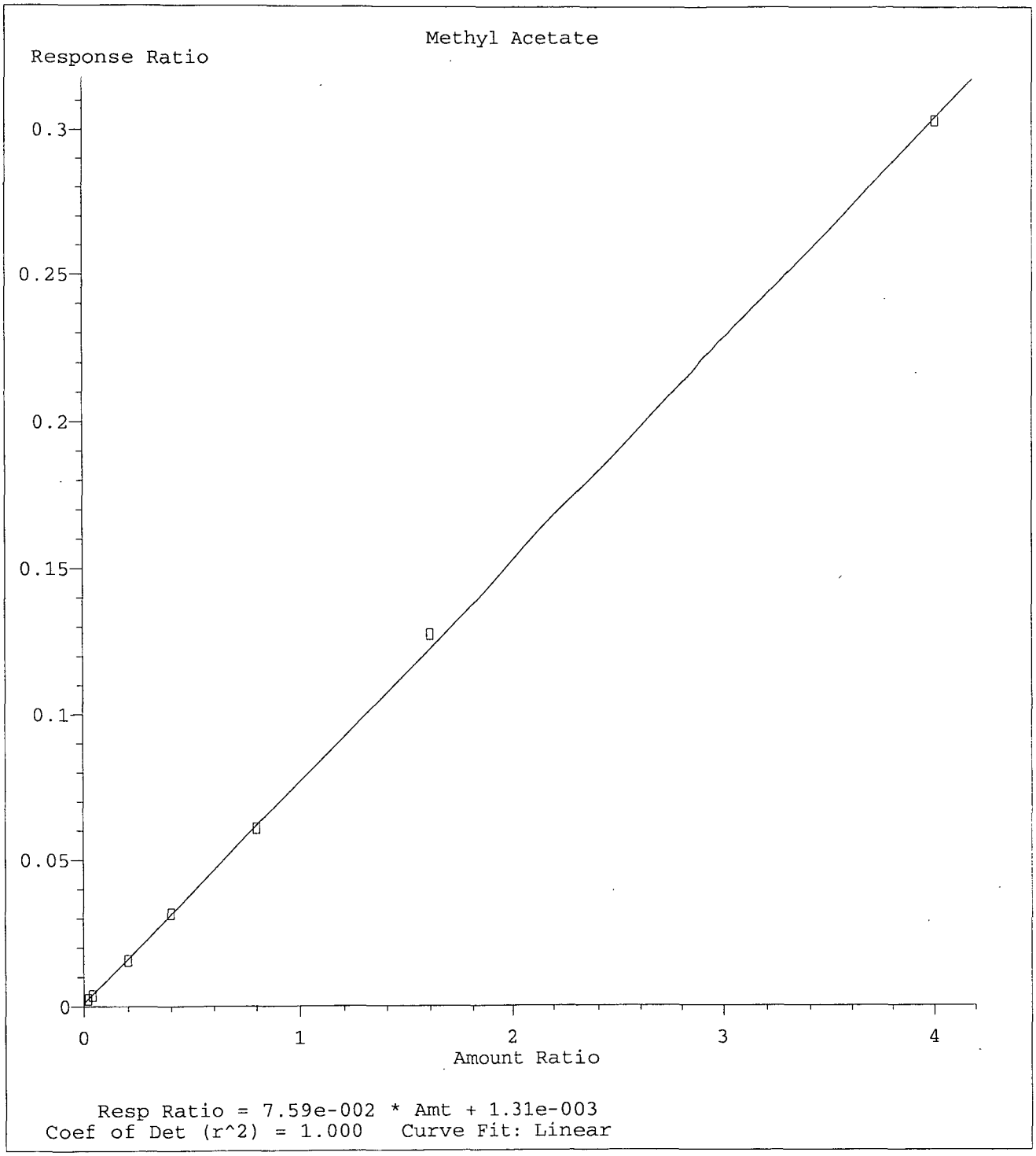
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



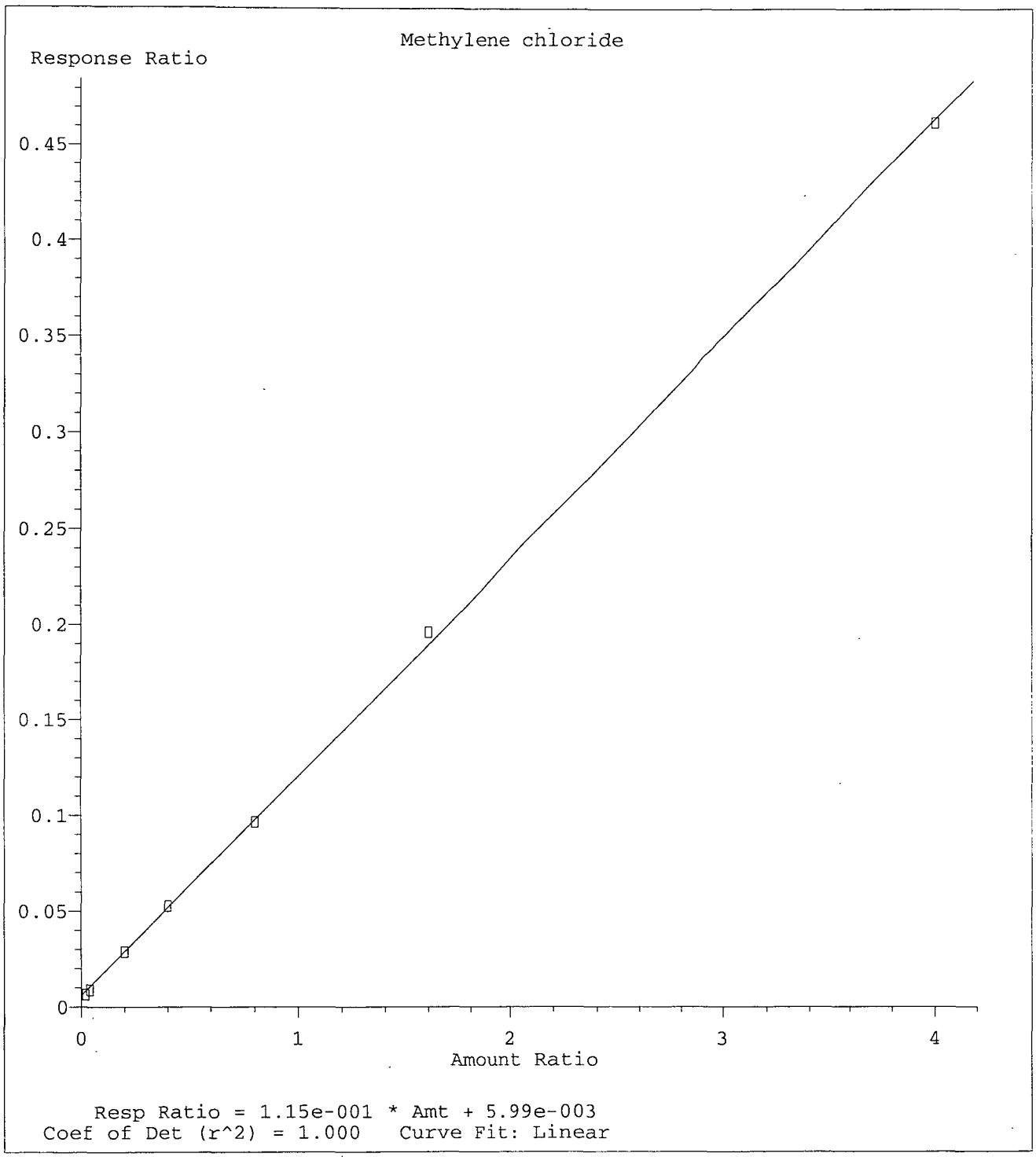
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



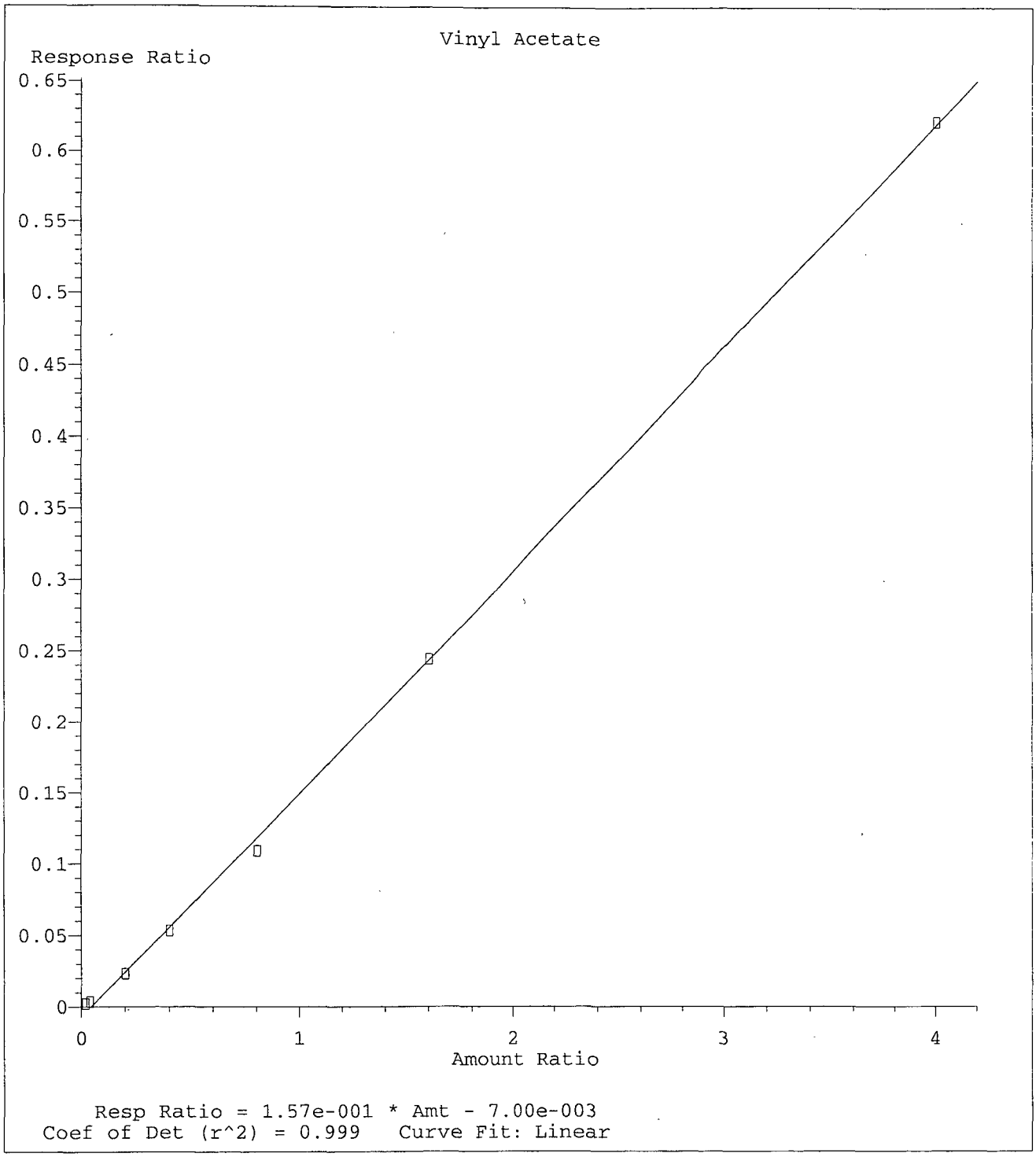
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



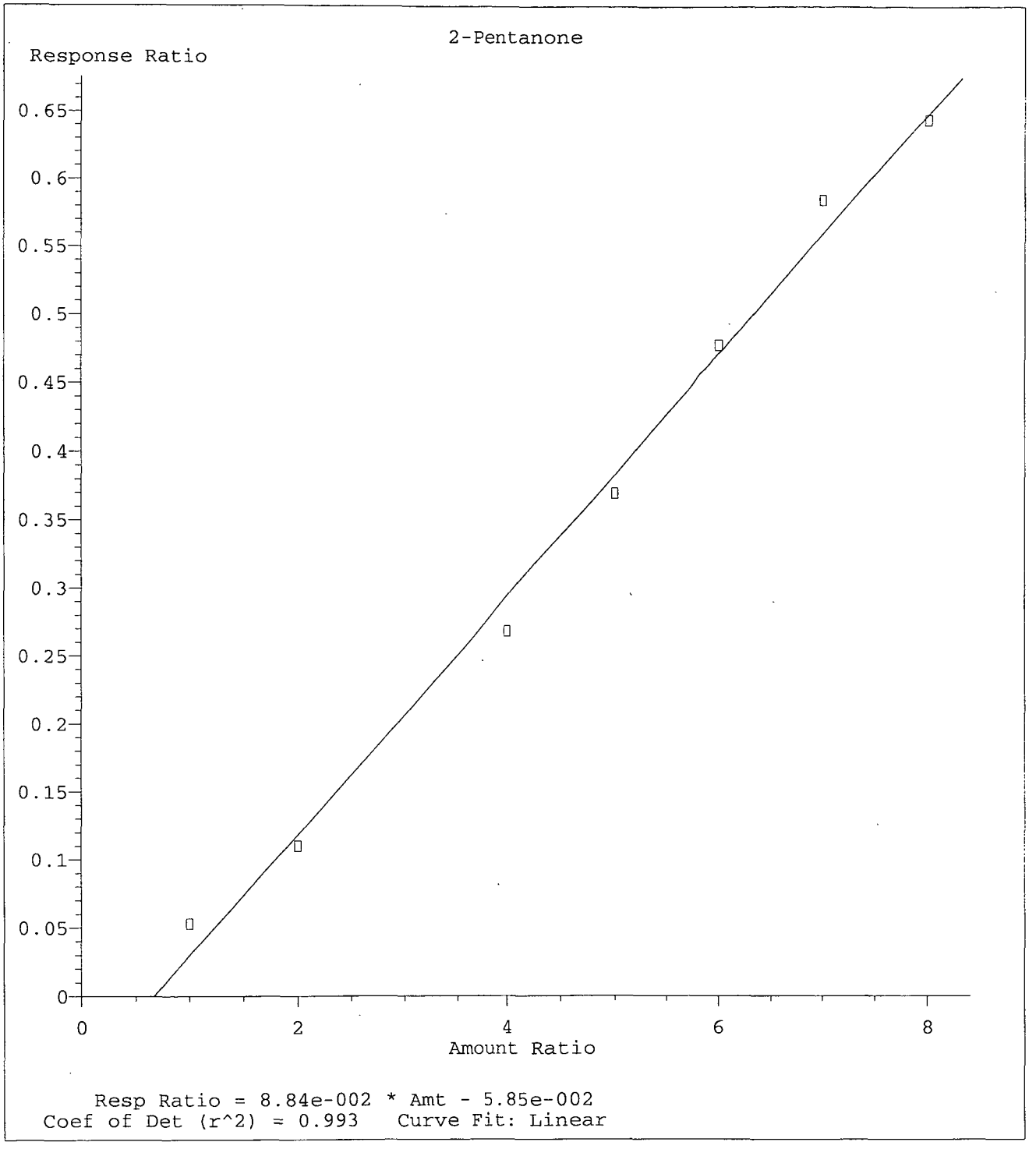
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



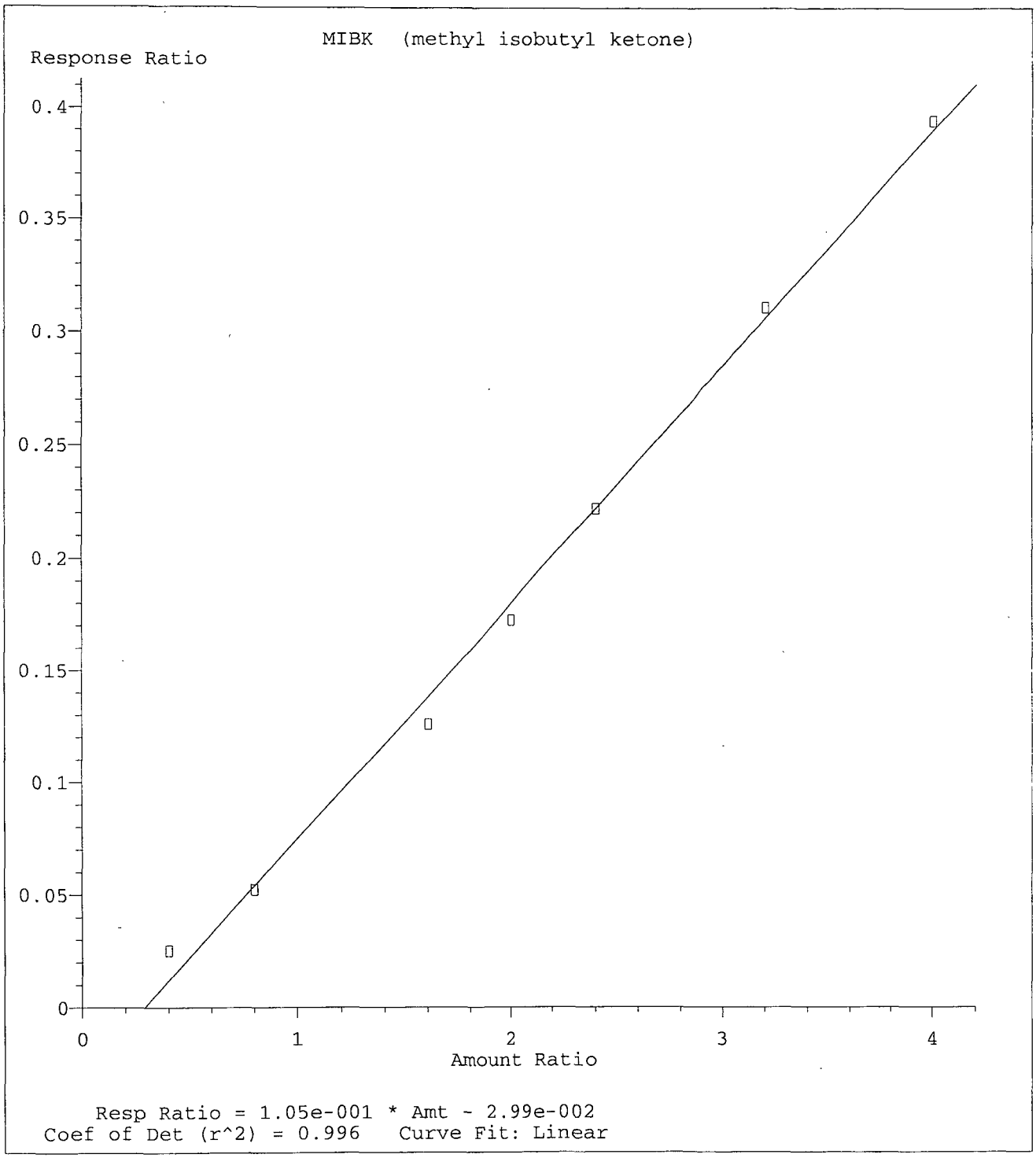
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



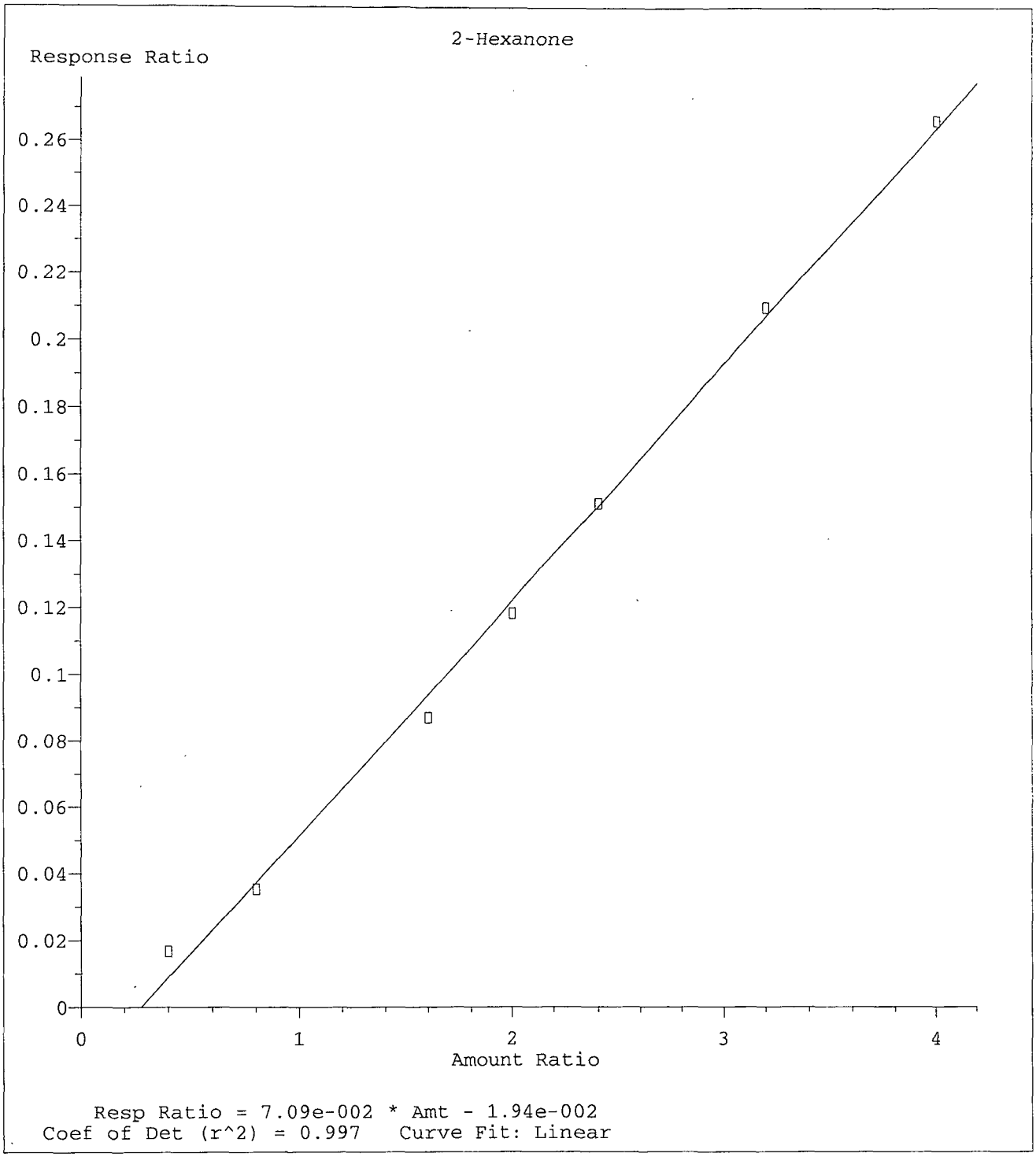
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



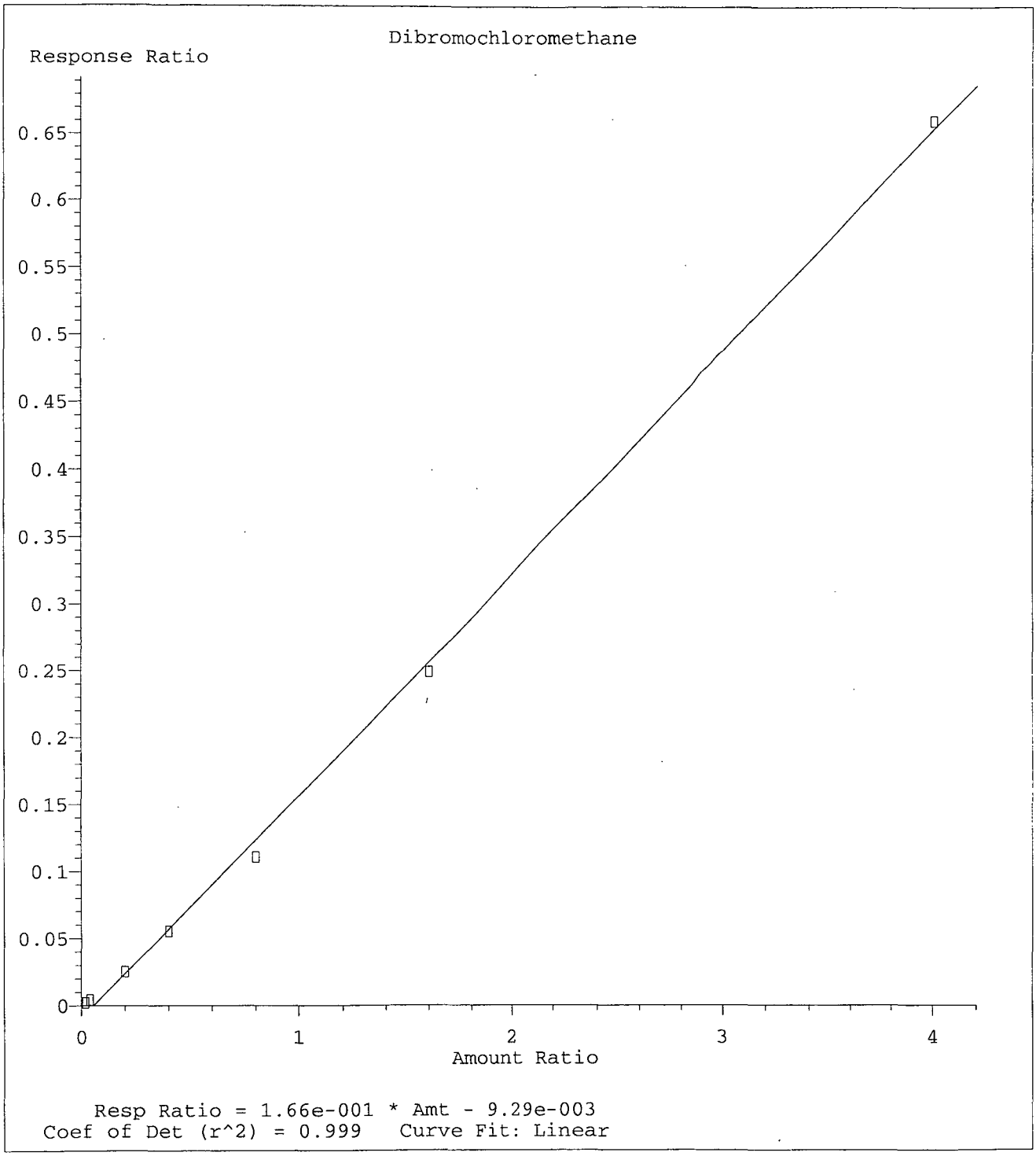
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



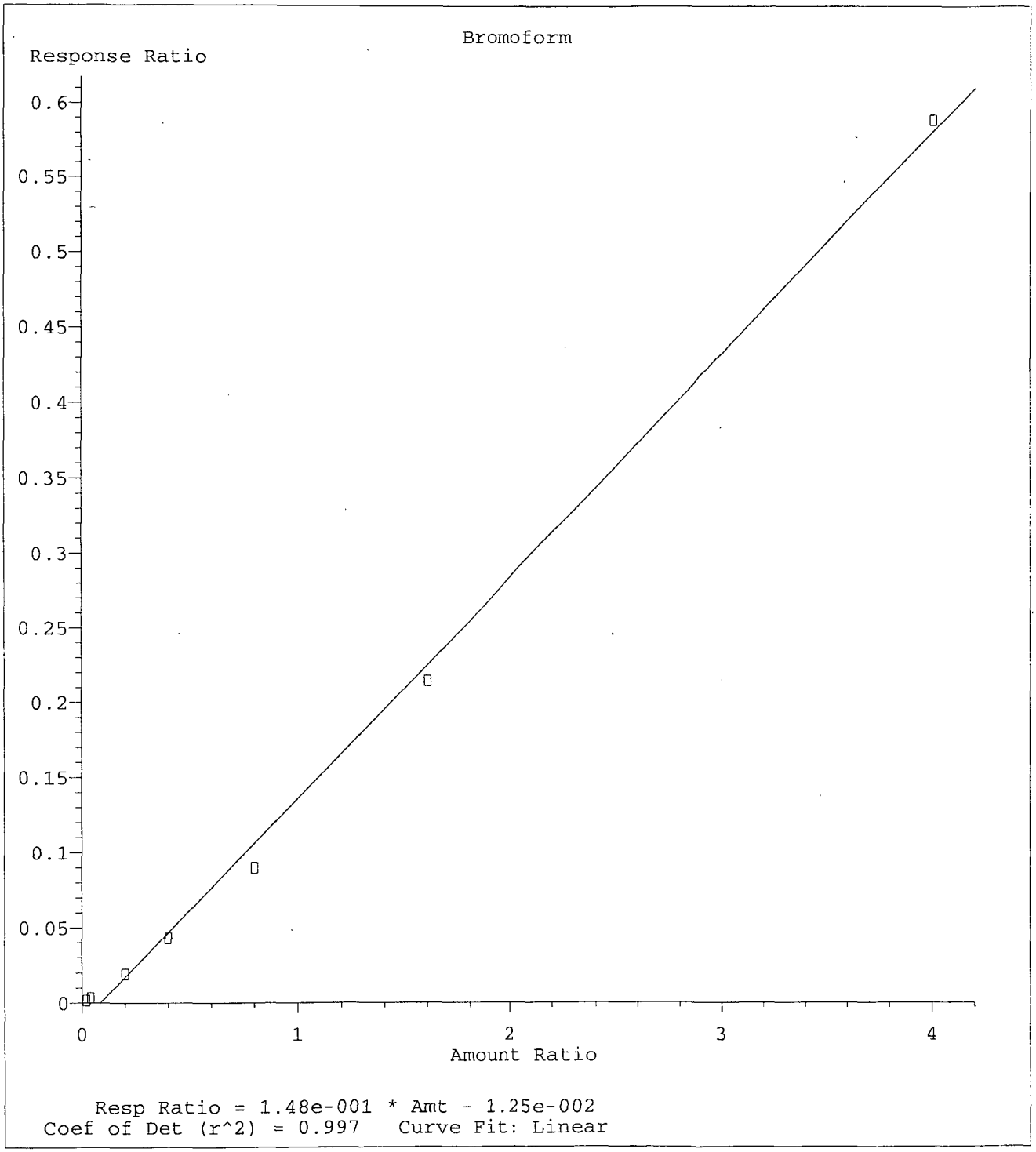
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



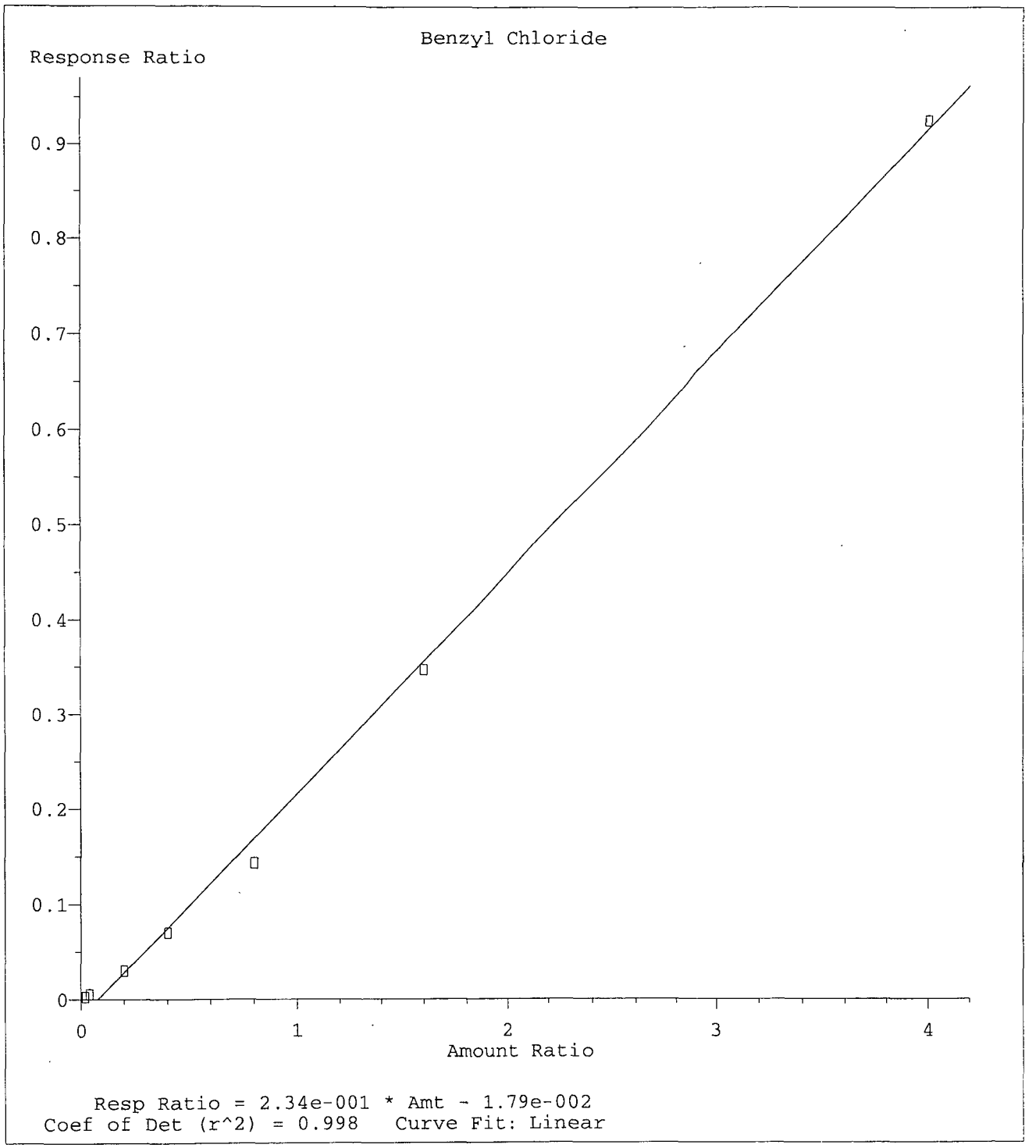
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



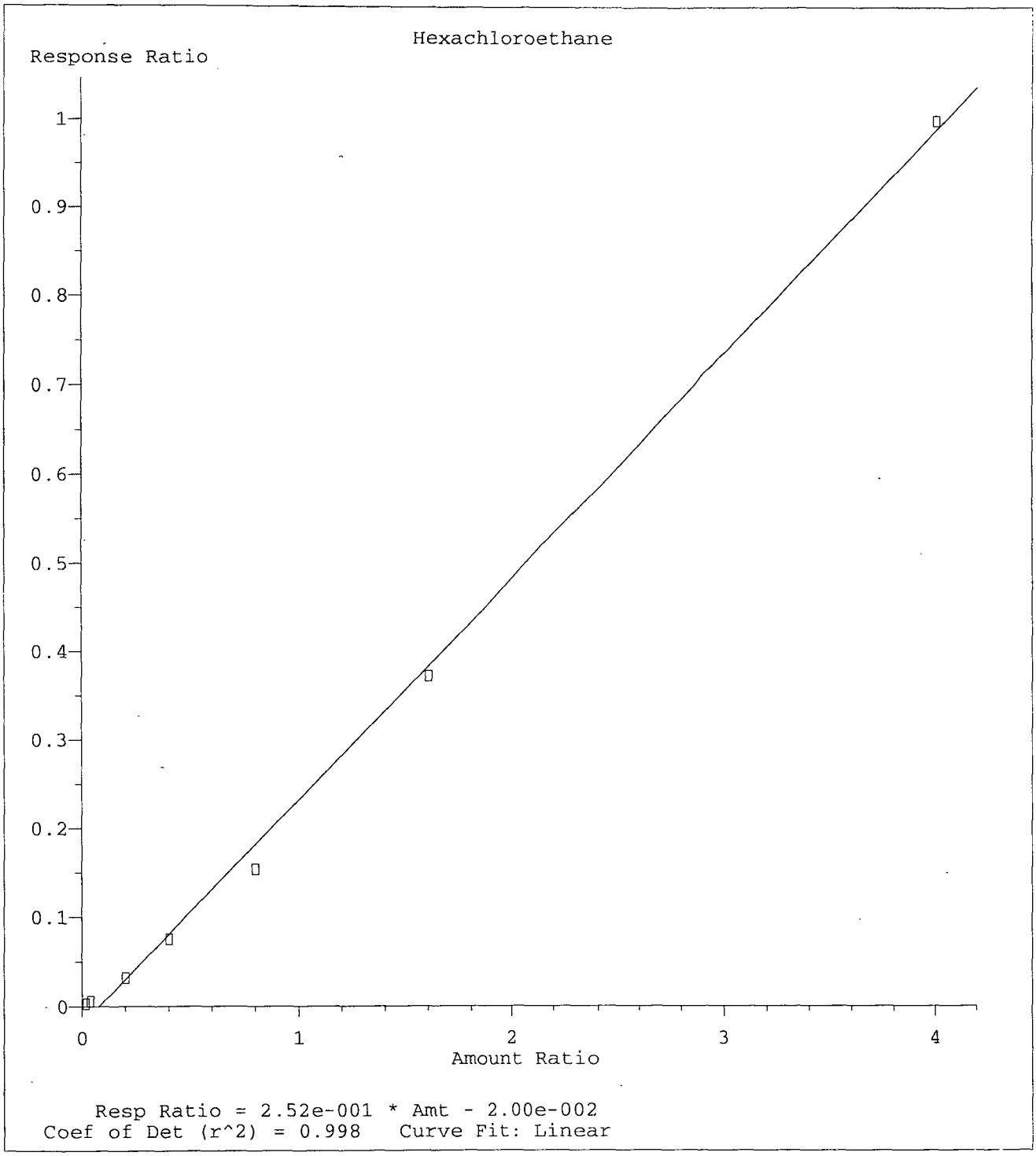
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



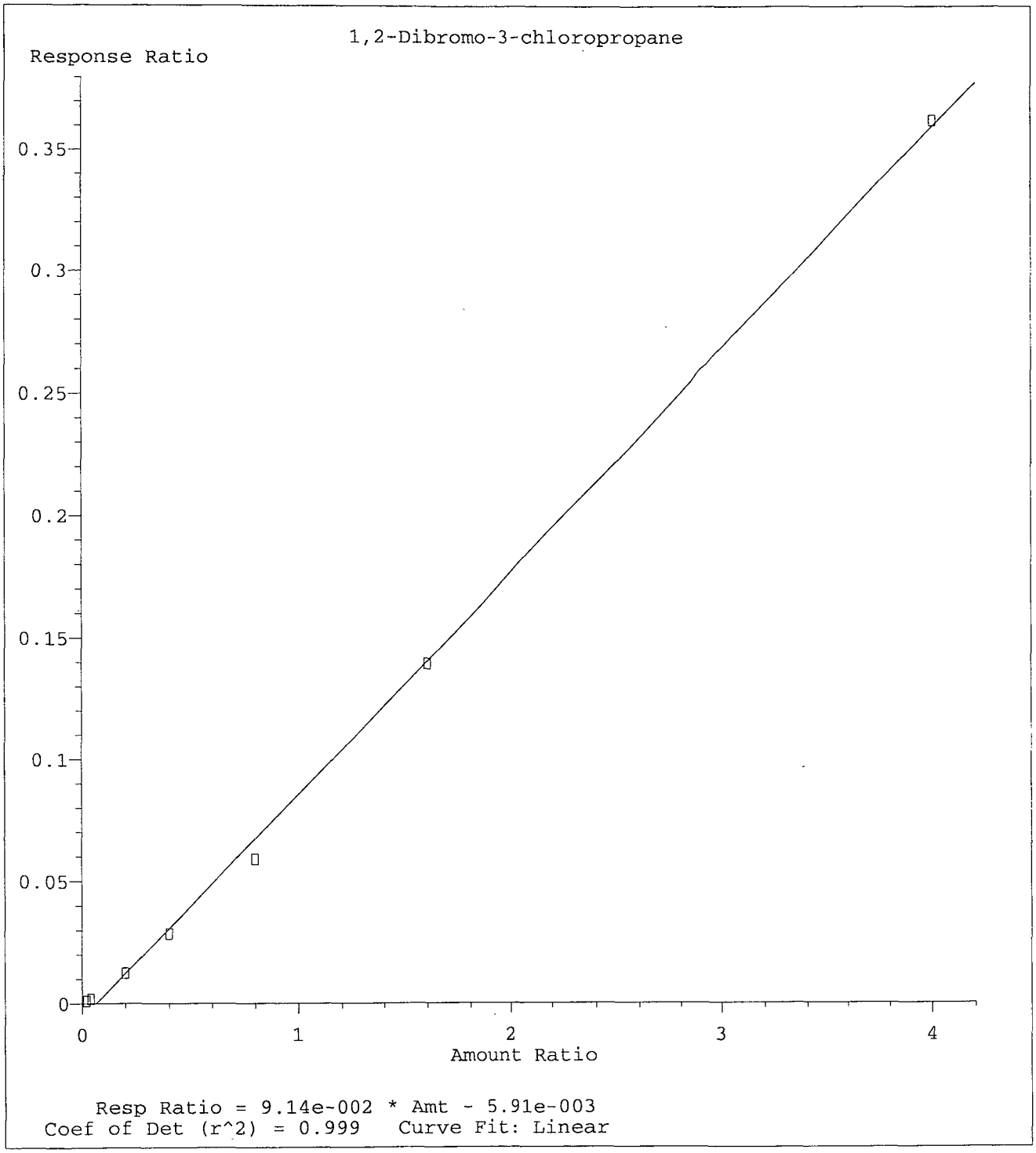
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



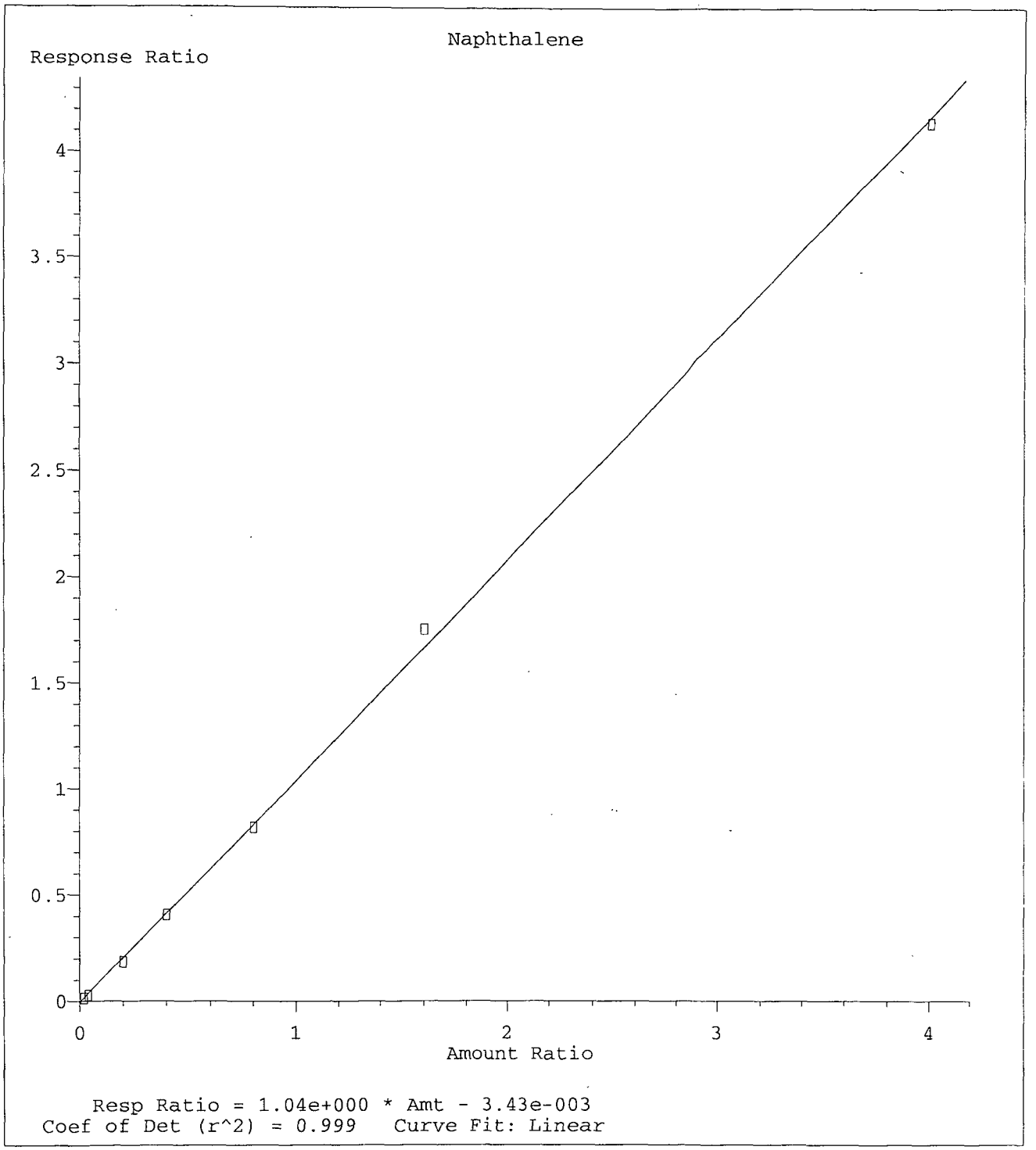
Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021



Method Name: M:\ZEUS\DATA\210301\Z5240301.M
Calibration Table Last Updated: Tue Mar 02 10:49:40 2021

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/01/21
Instrument: ZEUS
Initial Cal. Date: 03/01/21
Data File: 0301Z11.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Dichlorodifluoromethane	0.0877	0.0829	5.5	TM	
2	TM	Freon 114	0.0487	0.0454	6.7	TM	
3	TM**	Chloromethane	0.1122	0.1027	8.5	TM**	
4	TM*	Vinyl chloride	0.1032	0.0940	8.9	TM*	
5	TML	Bromomethane	0.0403	0.0368	8.6	TML	12
6	TML	Chloroethane	0.0234	0.0192	18	TML	0.96
7	TML	Dichlorofluoromethane	0.1761	0.1675	4.9	TML	11
8	TM	Trichlorofluoromethane	0.1846	0.1650	11	TM	
9	TM	Acrolein	0.0101	0.0121	19	TM	
10	TM	Acetone	0.0318	0.0340	6.9	TM	
11	TM	Freon-113	0.1116	0.1093	2.1	TM	
12	TM*	1,1-DCE	0.1464	0.1481	1.2	TM*	
13	TM	Acetonitrile	0.0028	0.0030	8.8	TM	
14	TM	t-Butanol	0.0034	0.0038	14	TM	
15	TML	Methyl Acetate	0.0863	0.0802	7.1	TML	1.5
16	TM	Iodomethane	0.1536	0.1323	14	TM	
17	TM	Acrylonitrile	0.0369	0.0379	2.6	TM	
18	TML	Methylene chloride	0.1688	0.1398	17	TML	8.8
19	TM	Carbon disulfide	0.1276	0.1327	4.0	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.2718	0.2909	7.0	TM	
21	TM	Trans-1,2-DCE	0.1429	0.1509	5.6	TM	
22	TM	Diisopropyl Ether	0.2666	0.2828	6.1	TM	
23	TM**	1,1-DCA	0.1858	0.1902	2.4	TM**	
24	TML	Vinyl Acetate	0.1271	0.1359	6.9	TML	2.1
25	TM	Ethyl tert Butyl Ether	0.2559	0.2720	6.3	TM	
26	TM	MEK (2-Butanone)	0.0445	0.0486	9.2	TM	
27	TM	Cis-1,2-DCE	0.1690	0.1704	0.87	TM	
28	TM	2,2-Dichloropropane	0.1617	0.1592	1.6	TM	
29	TM*	Chloroform	0.2075	0.2126	2.4	TM*	
30	TM	Bromochloromethane	0.0811	0.0811	0.03	TM	
31	TM	1,1,1-TCA	0.1943	0.1962	0.98	TM	
32	TM	Cyclohexane	0.1601	0.1670	4.3	TM	
33	TM	1,1-Dichloropropene	0.1429	0.1494	4.5	TM	
34	TM	2,2,4-Trimethylpentane	0.3344	0.3379	1.1	TM	
35	TM	Carbon Tetrachloride	0.1740	0.1780	2.3	TM	
36	TM	Tert Amyl Methyl Ether	0.2511	0.2667	6.2	TM	
37	TM	1,2-DCA	0.1450	0.1459	0.62	TM	
38	TM	Benzene	0.4476	0.4517	0.92	TM	
39	TM	TCE	0.1420	0.1466	3.2	TM	
40	TML	2-Pentanone	0.0704	0.0798	13	TML	3.5
		Average			6.4		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/01/21
Instrument: ZEUS
Cal. Date: 03/01/21
Data File: 0301Z11.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM*	1,2-Dichloropropane	0.1086	0.1112	2.5	TM*	
42	TM	Bromodichloromethane	0.1348	0.1433	6.4	TM	
43	TM	Methyl Cyclohexane	0.1798	0.1873	4.2	TM	
44	TM	Dibromomethane	0.1084	0.1114	2.8	TM	
45	TML	MIBK (methyl isobutyl ketone)	0.0830	0.0910	9.6	TML	0.93
46	TM	1-Bromo-2-chloroethane	0.0215	0.0222	3.4	TM	
47	TM	2-Chloroethyl vinyl ether	0.0000	0.0002	0.00	TM	
48	TM	Cis-1,3-Dichloropropene	0.1580	0.1686	6.7	TM	
49	TM*	Toluene	0.4861	0.5038	3.6	TM*	
50	TM	Trans-1,3-Dichloropropene	0.1429	0.1517	6.1	TM	
51	TM	1,1,2-TCA	0.0991	0.1076	8.6	TM	
52	TML	2-Hexanone	0.0564	0.0625	11	TML	1.9
53	TM	1,2-EDB	0.1297	0.1395	7.5	TM	
54	TM	Tetrachloroethene	0.2200	0.2247	2.2	TM	
55	TM	1-Chlorohexane	0.1825	0.1961	7.4	TM	
56	TM	1,1,1,2-Tetrachloroethane	0.1444	0.1515	4.9	TM	
57	TM	m&p-Xylene	0.5094	0.5529	8.5	TM	
58	TM	o-Xylene	0.5126	0.5599	9.2	TM	
59	TM	Styrene	0.3757	0.4178	11	TM	
60	TM	1,3-Dichloropropane	0.1973	0.2113	7.1	TM	
61	TML	Dibromochloromethane	0.1347	0.1404	4.3	TML	1.4
62	TM**	Chlorobenzene	0.4274	0.4420	3.4	TM**	
63	TM*	Ethylbenzene	0.6577	0.7022	6.8	TM*	
64	TM**L	Bromoform	0.1090	0.1093	0.23	TM**L	5.3
65	TM	Isopropylbenzene	1.039	1.095	5.4	TM	
66	TM**	1,1,2,2-Tetrachloroethane	0.2337	0.2455	5.1	TM**	
67	TM	1,2,3-Trichloropropane	0.0899	0.0964	7.3	TM	
68	TM	t-1,4-Dichloro-2-Butene	0.0518	0.0516	0.37	TM	
69	TM	Bromobenzene	0.3688	0.3884	5.3	TM	
70	TM	n-Propylbenzene	1.172	1.255	7.1	TM	
71	TM	4-Ethyltoluene	1.027	1.085	5.6	TM	
72	TM	2-Chlorotoluene	0.8300	0.8762	5.6	TM	
73	TM	1,3,5-Trimethylbenzene	0.8857	0.9628	8.7	TM	
74	TM	4-Chlorotoluene	0.8300	0.8762	5.6	TM	
75	TM	Tert-Butylbenzene	0.8219	0.8550	4.0	TM	
76	TM	1,2,4-Trimethylbenzene	0.8841	0.9547	8.0	TM	
77	TM	Sec-Butylbenzene	1.123	1.202	7.0	TM	
78	TM	p-Isopropyltoluene	1.048	1.087	3.7	TM	
79	TML	Benzyl Chloride	0.1751	0.1735	0.90	TML	6.5
80	TM	1,3-DCB	0.6438	0.6494	0.87	TM	
		Average			5.4		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/01/21
Instrument: ZEUS
Cal. Date: 03/01/21
Data File: 0301Z11.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,4-DCB	0.5870	0.6086	3.7	TM	
82	TM	n-Butylbenzene	0.8501	0.9383	10	TM	
83	TM	1,2-DCB	0.6345	0.6504	2.5	TM	
84	TML	Hexachloroethane	0.1862	0.1867	0.26	TML	6.1
85	TML	1,2-Dibromo-3-chloropropane	0.0691	0.0724	4.8	TML	4.6
86	TM	1,2,4-Trichlorobenzene	0.5343	0.5558	4.0	TM	
87	TM	Hexachlorobutadiene	0.2909	0.3012	3.6	TM	
88	TML	Naphthalene	0.9290	1.043	12	TML	0.71
89	TM	1,2,3-Trichlorobenzene	0.4318	0.4621	7.0	TM	
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			5.3		

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z11.D
Acq On : 01 Mar 21 17:43
Sample : (SS) 10ug/L HCl 3/1/21
Misc :

Vial: 11
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3351879	25.00	ppb		0.00
56) Chlorobenzene-D5 (IS)	9.60	117	2751649	25.00	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1815849	25.00	ppb		0.00
System Monitoring Compounds							
32) Dibromofluoromethane(S)	5.27	111	928135	25.82	ppb		0.00
Spiked Amount 25.000			Recovery	=	103.292%		
37) 1,2-DCA-D4(S)	5.68	65	869531	25.32	ppb		0.00
Spiked Amount 25.000			Recovery	=	101.300%		
57) Toluene-D8(S)	8.01	98	3147225	26.08	ppb		0.00
Spiked Amount 25.000			Recovery	=	104.320%		
65) 4-Bromofluorobenzene(S)	10.89	95	1300658	26.56	ppb		0.00
Spiked Amount 25.000			Recovery	=	106.260%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.06	85	111104	9.45	ppb		100
3) Freon 114	1.15	85	60924	9.33	ppb		100
4) Chloromethane	1.21	50	137679	9.15	ppb		99
5) Vinyl chloride	1.27	62	126050	9.11	ppb		97
6) Bromomethane	1.51	94	49399	11.21	ppb		100
7) Chloroethane	1.59	64	25710	10.10	ppb		99
8) Dichlorofluoromethane	1.77	67	224591	11.12	ppb		99
9) Trichlorofluoromethane	1.81	101	221287	8.94	ppb		93
10) Acrolein	2.19	55	202180	148.66	ppb		99
11) Acetone	2.34	43	227707	53.46	ppb		100
12) Freon-113	2.30	101	146486	9.79	ppb		96
13) 1,1-DCE	2.28	61	198526	10.12	ppb		96
14) Acetonitrile	2.62	40	51090	135.97	ppb		96
15) t-Butanol	3.00	59	64488	142.46	ppb		95
16) Methyl Acetate	2.71	43	107594	10.15	ppb	#	89
17) Iodomethane	2.41	142	177441	8.62	ppb		99
18) Acrylonitrile	3.08	52	50773	10.26	ppb		97
19) Methylene chloride	2.79	84	187419	10.88	ppb		96
20) Carbon disulfide	2.46	76	177856	10.40	ppb		99
21) Methyl t-butyl ether (MtBE	3.16	73	390050	10.70	ppb		95
22) Trans-1,2-DCE	3.11	61	202322	10.56	ppb		96
23) Diisopropyl Ether	3.90	45	379201	10.61	ppb		97
24) 1,1-DCA	3.68	63	255025	10.24	ppb		99
25) Vinyl Acetate	3.83	43	182195	9.79	ppb		99
26) Ethyl tert Butyl Ether	4.46	59	364692	10.63	ppb		92
27) MEK (2-Butanone)	4.64	43	325915	54.62	ppb		94
28) Cis-1,2-DCE	4.57	61	228506	10.09	ppb		97
29) 2,2-Dichloropropane	4.56	77	213404	9.84	ppb		99
30) Chloroform	5.06	83	285005	10.24	ppb		98
31) Bromochloromethane	4.90	49	108720	10.00	ppb		95
33) 1,1,1-TCA	5.27	97	262996	10.10	ppb		97
34) Cyclohexane	5.34	56	223895	10.43	ppb		93
35) 1,1-Dichloropropene	5.49	75	200326	10.45	ppb		95
36) 2,2,4-Trimethylpentane	5.93	57	453031	10.11	ppb		99
38) Carbon Tetrachloride	5.49	117	238690	10.23	ppb		97
39) Tert Amyl Methyl Ether	5.98	73	357616	10.62	ppb		99
40) 1,2-DCA	5.78	62	195589	10.06	ppb		99
41) Benzene	5.75	78	605587	10.09	ppb		98
42) TCE	6.59	130	196568	10.32	ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z11.D
Acq On : 01 Mar 21 17:43
Sample : (SS) 10ug/L HCl 3/1/21
Misc :

Vial: 11
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	2-Pentanone	6.85	43	1338019	129.43 ppb		100
44)	1,2-Dichloropropane	6.84	63	149123	10.25 ppb	#	96
45)	Bromodichloromethane	7.18	83	192184	10.64 ppb		95
46)	Methyl Cyclohexane	6.81	83	251177	10.42 ppb		99
47)	Dibromomethane	6.96	174	149295	10.28 ppb		97
48)	MIBK (methyl isobutyl ket	7.92	43	610132	50.47 ppb		99
49)	1-Bromo-2-chloroethane	7.51	144	29791	10.34 ppb		90
51)	Cis-1,3-Dichloropropene	7.71	75	226059	10.67 ppb		97
52)	Toluene	8.08	91	675474	10.36 ppb		99
53)	Trans-1,3-Dichloropropene	8.35	75	203338	10.61 ppb		95
54)	1,1,2-TCA	8.54	97	144236	10.86 ppb		94
55)	2-Hexanone	8.86	43	418865	50.93 ppb		99
58)	1,2-EDB	9.07	107	153544	10.75 ppb		99
59)	Tetrachloroethene	8.69	166	247330	10.22 ppb		98
60)	1-Chlorohexane	9.64	91	215819	10.74 ppb		98
61)	1,1,1,2-Tetrachloroethane	9.73	131	166752	10.49 ppb		97
62)	m&p-Xylene	9.90	91	1217096	21.71 ppb		98
63)	o-Xylene	10.33	91	616206	10.92 ppb		98
64)	Styrene	10.34	104	459843	11.12 ppb		97
66)	1,3-Dichloropropane	8.72	76	232518	10.71 ppb		97
67)	Dibromochloromethane	8.96	129	154572	9.86 ppb		94
68)	Chlorobenzene	9.63	112	486451	10.34 ppb		99
69)	Ethylbenzene	9.77	91	772873	10.68 ppb		98
70)	Bromoform	10.52	173	120264	9.47 ppb		95
72)	Isopropylbenzene	10.74	105	795576	10.54 ppb		99
73)	1,1,2,2-Tetrachloroethane	11.06	83	178299	10.51 ppb		97
74)	1,2,3-Trichloropropane	11.09	110	70043	10.73 ppb		98
75)	t-1,4-Dichloro-2-Butene	11.12	53	37490	9.96 ppb		94
76)	Bromobenzene	11.04	77	282112	10.53 ppb		98
77)	n-Propylbenzene	11.19	91	911217	10.71 ppb		99
78)	4-Ethyltoluene	11.31	105	787739	10.56 ppb		99
79)	2-Chlorotoluene	11.38	91	636435	10.56 ppb		100
80)	1,3,5-Trimethylbenzene	11.39	105	699327	10.87 ppb		98
81)	4-Chlorotoluene	11.38	91	636435	10.56 ppb		100
82)	Tert-Butylbenzene	11.74	119	621004	10.40 ppb		98
83)	1,2,4-Trimethylbenzene	11.79	105	693449	10.80 ppb		99
84)	Sec-Butylbenzene	11.98	105	872822	10.70 ppb		100
85)	p-Isopropyltoluene	12.14	119	789391	10.37 ppb		98
86)	Benzyl Chloride	12.33	91	126000	9.35 ppb		98
87)	1,3-DCB	12.17	146	471683	10.09 ppb		100
88)	1,4-DCB	12.58	146	442020	10.37 ppb		96
89)	n-Butylbenzene	12.59	91	681489	11.04 ppb		98
90)	1,2-DCB	12.07	146	472395	10.25 ppb		99
91)	Hexachloroethane	12.87	201	135635	9.39 ppb		97
92)	1,2-Dibromo-3-chloropropan	13.42	157	52623	9.54 ppb		92
93)	1,2,4-Trichlorobenzene	13.67	180	403677	10.40 ppb		99
94)	Hexachlorobutadiene	14.55	225	218778	10.36 ppb		98
95)	Naphthalene	14.60	128	757351	10.07 ppb		99
96)	1,2,3-Trichlorobenzene	14.87	180	335619	10.70 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

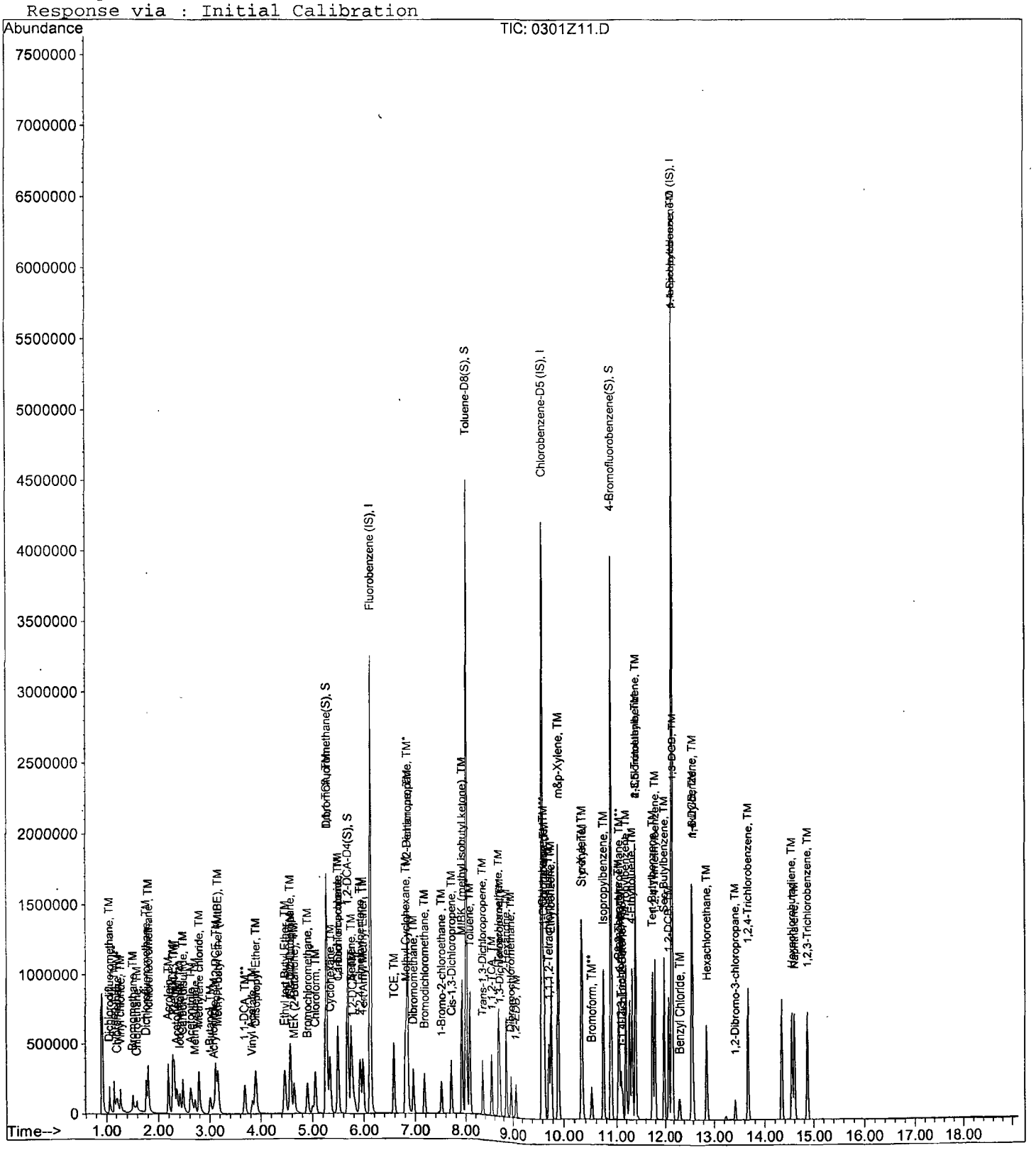
Data File : M:\ZEUS\DATA\210301\0301Z11.D
Acq On : 01 Mar 21 17:43
Sample : (SS) 10ug/L HCl 3/1/21
Misc :

Vial: 11
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/01/21
Instrument: ZEUS
Initial Cal. Date: 03/01/21
Data File: 0301Z18.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.0877	0.1054	20	TM	
3	TM	Freon 114	0.0487	0.0581	19	TM	
4	TM**	Chloromethane	0.1122	0.1234	9.9	TM**	
5	TM*	Vinyl chloride	0.1032	0.1177	14	TM*	
6	TML	Bromomethane	0.0403	0.0450	12	TML	39
7	TML	Chloroethane	0.0234	0.0231	1.2	TML	23
8	TML	Dichlorofluoromethane	0.1761	0.2006	14	TML	36
9	TM	Trichlorofluoromethane	0.1846	0.2169	17	TM	
10	TM	Acrolein	0.0101	0.0099	2.4	TM	
11	TM	Acetone	0.0318	0.0323	1.6	TM	
12	TM	Freon-113	0.1116	0.1267	13	TM	
13	TM*	1,1-DCE	0.1464	0.1685	15	TM*	
14	TM	Acetonitrile	0.0028	0.0029	4.2	TM	
15	TM	t-Butanol	0.0034	0.0032	6.1	TM	
16	TML	Methyl Acetate	0.0863	0.0762	12	TML	3.8
17	TM	Iodomethane	0.1536	0.1483	3.4	TM	
18	TM	Acrylonitrile	0.0369	0.0352	4.8	TM	
19	TML	Methylene chloride	0.1688	0.1441	15	TML	13
20	TM	Carbon disulfide	0.1276	0.1443	13	TM	
21	TM	Methyl t-butyl ether (MtBE)	0.2718	0.2849	4.8	TM	
22	TM	Trans-1,2-DCE	0.1429	0.1619	13	TM	
23	TM	Diisopropyl Ether	0.2666	0.2857	7.2	TM	
24	TM**	1,1-DCA	0.1858	0.2067	11	TM**	
25	TML	Vinyl Acetate	0.1271	0.1204	5.2	TML	12
26	TM	Ethyl tert Butyl Ether	0.2559	0.2664	4.1	TM	
27	TM	MEK (2-Butanone)	0.0445	0.0417	6.3	TM	
28	TM	Cis-1,2-DCE	0.1690	0.1825	8.0	TM	
29	TM	2,2-Dichloropropane	0.1617	0.1624	0.46	TM	
30	TM*	Chloroform	0.2075	0.2358	14	TM*	
31	TM	Bromochloromethane	0.0811	0.0879	8.4	TM	
32	S	Dibromofluoromethane(S)	0.2681	0.2887	7.7	S	
33	TM	1,1,1-TCA	0.1943	0.2221	14	TM	
34	TM	Cyclohexane	0.1601	0.1792	12	TM	
35	TM	1,1-Dichloropropene	0.1429	0.1610	13	TM	
36	TM	2,2,4-Trimethylpentane	0.3344	0.3692	10	TM	
37	S	1,2-DCA-D4(S)	0.2561	0.2703	5.6	S	
38	TM	Carbon Tetrachloride	0.1740	0.1962	13	TM	
39	TM	Tert Amyl Methyl Ether	0.2511	0.2633	4.8	TM	
40	TM	1,2-DCA	0.1450	0.1558	7.4	TM	
		Average			9.4		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/01/21
Instrument: ZEUS
Cal. Date: 03/01/21
Data File: 0301Z18.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Benzene	0.4476	0.4886	9.2	TM	
42	TM	TCE	0.1420	0.1575	11	TM	
43	TML	2-Pentanone	0.0704	0.0661	6.1	TML	12
44	TM*	1,2-Dichloropropane	0.1086	0.1211	12	TM*	
45	TM	Bromodichloromethane	0.1348	0.1470	9.0	TM	
46	TM	Methyl Cyclohexane	0.1798	0.2026	13	TM	
47	TM	Dibromomethane	0.1084	0.1170	8.0	TM	
48	TML	MIBK (methyl isobutyl ketone)	0.0830	0.0784	5.5	TML	11
49	TM	1-Bromo-2-chloroethane	0.0215	0.0229	6.7	TM	
50	TM	2-Chloroethyl vinyl ether	0.0000	0.0002	0.00	TM	
51	TM	Cis-1,3-Dichloropropene	0.1580	0.1697	7.4	TM	
52	TM*	Toluene	0.4861	0.5397	11	TM*	
53	TM	Trans-1,3-Dichloropropene	0.1429	0.1481	3.6	TM	
54	TM	1,1,2-TCA	0.0991	0.1062	7.2	TM	
55	TML	2-Hexanone	0.0564	0.0533	5.4	TML	11
56	I	Chlorobenzene-D5 (IS)	ISTD			I	
57	S	Toluene-D8(S)	1.096	1.160	5.8	S	
58	TM	1,2-EDB	0.1297	0.1390	7.2	TM	
59	TM	Tetrachloroethene	0.2200	0.2374	7.9	TM	
60	TM	1-Chlorohexane	0.1825	0.2070	13	TM	
61	TM	1,1,1,2-Tetrachloroethane	0.1444	0.1581	9.5	TM	
62	TM	m&p-Xylene	0.5094	0.5836	15	TM	
63	TM	o-Xylene	0.5126	0.5828	14	TM	
64	TM	Styrene	0.3757	0.4368	16	TM	
65	S	4-Bromofluorobenzene(S)	0.4448	0.4701	5.7	S	
66	TM	1,3-Dichloropropane	0.1973	0.2106	6.8	TM	
67	TML	Dibromochloromethane	0.1347	0.1413	5.0	TML	0.90
68	TM**	Chlorobenzene	0.4274	0.4730	11	TM**	
69	TM*	Ethylbenzene	0.6577	0.7462	13	TM*	
70	TM**L	Bromoform	0.1090	0.1084	0.57	TM**L	5.9
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	Isopropylbenzene	1.039	1.155	11	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.2337	0.2392	2.4	TM**	
74	TM	1,2,3-Trichloropropane	0.0899	0.0918	2.1	TM	
75	TM	t-1,4-Dichloro-2-Butene	0.0518	0.0504	2.7	TM	
76	TM	Bromobenzene	0.3688	0.3858	4.6	TM	
77	TM	n-Propylbenzene	1.172	1.327	13	TM	
78	TM	4-Ethyltoluene	1.027	1.169	14	TM	
79	TM	2-Chlorotoluene	0.8300	0.9291	12	TM	
80	TM	1,3,5-Trimethylbenzene	0.8857	1.020	15	TM	
		Average			8.5		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 03/01/21
Instrument: ZEUS
Cal. Date: 03/01/21
Data File: 0301Z18.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	4-Chlorotoluene	0.8300	0.9291	12	TM	
82	TM	Tert-Butylbenzene	0.8219	0.9208	12	TM	
83	TM	1,2,4-Trimethylbenzene	0.8841	1.025	16	TM	
84	TM	Sec-Butylbenzene	1.123	1.309	17	TM	
85	TM	p-Isopropyltoluene	1.048	1.201	15	TM	
86	TML	Benzyl Chloride	0.1751	0.1430	18	TML	20
87	TM	1,3-DCB	0.6438	0.6811	5.8	TM	
88	TM	1,4-DCB	0.5870	0.6364	8.4	TM	
89	TM	n-Butylbenzene	0.8501	0.9995	18	TM	
90	TM	1,2-DCB	0.6345	0.6847	7.9	TM	
91	TML	Hexachloroethane	0.1862	0.1991	6.9	TML	1.2
92	TML	1,2-Dibromo-3-chloropropane	0.0691	0.0660	4.4	TML	12
93	TM	1,2,4-Trichlorobenzene	0.5343	0.5736	7.4	TM	
94	TM	Hexachlorobutadiene	0.2909	0.3166	8.8	TM	
95	TML	Naphthalene	0.9290	0.9990	7.5	TML	3.5
96	TM	1,2,3-Trichlorobenzene	0.4318	0.4599	6.5	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			10.7		

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z18.D
Acq On : 01 Mar 21 20:26
Sample : Ending CCV 10ug/L 3/1/21
Misc :

Vial: 18
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:03 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3015478	25.00	ppb		0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2465276	25.00	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1662445	25.00	ppb		0.00
System Monitoring Compounds							
32) Dibromofluoromethane(S)	5.26	111	870526	26.92	ppb		0.00
Spiked Amount 25.000			Recovery	=	107.688%		
37) 1,2-DCA-D4(S)	5.68	65	815226	26.39	ppb		0.00
Spiked Amount 25.000			Recovery	=	105.568%		
57) Toluene-D8(S)	8.01	98	2860343	26.46	ppb		0.00
Spiked Amount 25.000			Recovery	=	105.824%		
65) 4-Bromofluorobenzene(S)	10.88	95	1158881	26.42	ppb		0.00
Spiked Amount 25.000			Recovery	=	105.676%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.06	85	127176	12.02	ppb		98
3) Freon 114	1.15	85	70106	11.94	ppb		100
4) Chloromethane	1.21	50	148787	10.99	ppb		95
5) Vinyl chloride	1.27	62	141975	11.40	ppb		100
6) Bromomethane	1.52	94	54303	13.92	ppb		96
7) Chloroethane	1.59	64	27923	12.34	ppb		100
8) Dichlorofluoromethane	1.77	67	241926	13.58	ppb		98
9) Trichlorofluoromethane	1.81	101	261632	11.75	ppb		95
10) Acrolein	2.19	55	149268	122.00	ppb		96
11) Acetone	2.34	43	194687	50.81	ppb		100
12) Freon-113	2.30	101	152787	11.35	ppb		98
13) 1,1-DCE	2.28	61	203228	11.51	ppb		97
14) Acetonitrile	2.62	40	44015	130.21	ppb		97
15) t-Butanol	3.00	59	47816	117.41	ppb		95
16) Methyl Acetate	2.70	43	91961	9.62	ppb		100
17) Iodomethane	2.41	142	178931	9.66	ppb		94
18) Acrylonitrile	3.08	52	42422	9.52	ppb		91
19) Methylene chloride	2.78	84	173805	11.26	ppb		99
20) Carbon disulfide	2.47	76	174080	11.31	ppb		100
21) Methyl t-butyl ether (MtBE	3.16	73	343622	10.48	ppb		97
22) Trans-1,2-DCE	3.12	61	195262	11.33	ppb		94
23) Diisopropyl Ether	3.90	45	344632	10.72	ppb		100
24) 1,1-DCA	3.68	63	249287	11.12	ppb		98
25) Vinyl Acetate	3.83	43	145240	8.80	ppb		97
26) Ethyl tert Butyl Ether	4.46	59	321357	10.41	ppb		97
27) MEK (2-Butanone)	4.64	43	251457	46.84	ppb	#	89
28) Cis-1,2-DCE	4.58	61	220079	10.80	ppb		96
29) 2,2-Dichloropropane	4.57	77	195935	10.05	ppb		97
30) Chloroform	5.06	83	284402	11.36	ppb		96
31) Bromochloromethane	4.90	49	106010	10.84	ppb		98
33) 1,1,1-TCA	5.26	97	267863	11.43	ppb		97
34) Cyclohexane	5.34	56	216142	11.19	ppb		94
35) 1,1-Dichloropropene	5.49	75	194239	11.27	ppb		97
36) 2,2,4-Trimethylpentane	5.92	57	445378	11.04	ppb		99
38) Carbon Tetrachloride	5.49	117	236603	11.28	ppb		100
39) Tert Amyl Methyl Ether	5.98	73	317611	10.48	ppb		98
40) 1,2-DCA	5.78	62	187876	10.74	ppb		96
41) Benzene	5.75	78	589359	10.92	ppb		100
42) TCE	6.59	130	190022	11.09	ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z18.D Vial: 18
Acq On : 01 Mar 21 20:26 Operator: LP,DG,CH
Sample : Ending CCV 10ug/L 3/1/21 Inst : ZEUS
Misc : Multiplr: 1.00

Quant Time: Mar 2 11:03 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43)	2-Pentanone	6.85	43	996009	109.95	ppb	99
44)	1,2-Dichloropropane	6.84	63	146123	11.16	ppb	97
45)	Bromodichloromethane	7.18	83	177252	10.90	ppb	99
46)	Methyl Cyclohexane	6.81	83	244364	11.27	ppb	97
47)	Dibromomethane	6.96	174	141106	10.80	ppb	93
48)	MIBK (methyl isobutyl ket	7.92	43	473000	44.47	ppb	99
49)	1-Bromo-2-chloroethane	7.52	144	27665	10.67	ppb	94
51)	Cis-1,3-Dichloropropene	7.71	75	204642	10.74	ppb	98
52)	Toluene	8.08	91	650927	11.10	ppb	99
53)	Trans-1,3-Dichloropropene	8.34	75	178607	10.36	ppb	92
54)	1,1,2-TCA	8.54	97	128103	10.72	ppb	97
55)	2-Hexanone	8.86	43	321515	44.46	ppb	96
58)	1,2-EDB	9.06	107	137093	10.72	ppb	94
59)	Tetrachloroethene	8.69	166	234137	10.79	ppb	98
60)	1-Chlorohexane	9.64	91	204103	11.34	ppb	96
61)	1,1,1,2-Tetrachloroethane	9.73	131	155952	10.95	ppb	97
62)	m&p-Xylene	9.90	91	1151039	22.92	ppb	98
63)	o-Xylene	10.32	91	574733	11.37	ppb	100
64)	Styrene	10.34	104	430744	11.63	ppb	99
66)	1,3-Dichloropropane	8.71	76	207718	10.68	ppb	97
67)	Dibromochloromethane	8.96	129	139380	9.91	ppb	90
68)	Chlorobenzene	9.63	112	466423	11.07	ppb	98
69)	Ethylbenzene	9.77	91	735815	11.34	ppb	100
70)	Bromoform	10.52	173	106896	9.41	ppb	96
72)	Isopropylbenzene	10.74	105	768222	11.12	ppb	100
73)	1,1,2,2-Tetrachloroethane	11.05	83	159051	10.24	ppb	99
74)	1,2,3-Trichloropropane	11.09	110	61019	10.21	ppb	95
75)	t-1,4-Dichloro-2-Butene	11.12	53	33516	9.73	ppb	92
76)	Bromobenzene	11.04	77	256573	10.46	ppb	93
77)	n-Propylbenzene	11.19	91	882269	11.32	ppb	100
78)	4-Ethyltoluene	11.31	105	777331	11.38	ppb	100
79)	2-Chlorotoluene	11.38	91	617805	11.19	ppb	99
80)	1,3,5-Trimethylbenzene	11.38	105	677975	11.51	ppb	99
81)	4-Chlorotoluene	11.38	91	617805	11.19	ppb	99
82)	Tert-Butylbenzene	11.73	119	612281	11.20	ppb	99
83)	1,2,4-Trimethylbenzene	11.79	105	681480	11.59	ppb	100
84)	Sec-Butylbenzene	11.98	105	870427	11.65	ppb	100
85)	p-Isopropyltoluene	12.14	119	798341	11.46	ppb	100
86)	Benzyl Chloride	12.32	91	95088	8.04	ppb	98
87)	1,3-DCB	12.17	146	452931	10.58	ppb	96
88)	1,4-DCB	12.57	146	423194	10.84	ppb	96
89)	n-Butylbenzene	12.58	91	664661	11.76	ppb	98
90)	1,2-DCB	12.07	146	455295	10.79	ppb	98
91)	Hexachloroethane	12.86	201	132390	9.88	ppb	97
92)	1,2-Dibromo-3-chloropropan	13.41	157	43920	8.84	ppb	96
93)	1,2,4-Trichlorobenzene	13.66	180	381422	10.74	ppb	99
94)	Hexachlorobutadiene	14.54	225	210528	10.88	ppb	98
95)	Naphthalene	14.59	128	664345	9.65	ppb	100
96)	1,2,3-Trichlorobenzene	14.86	180	305803	10.65	ppb	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

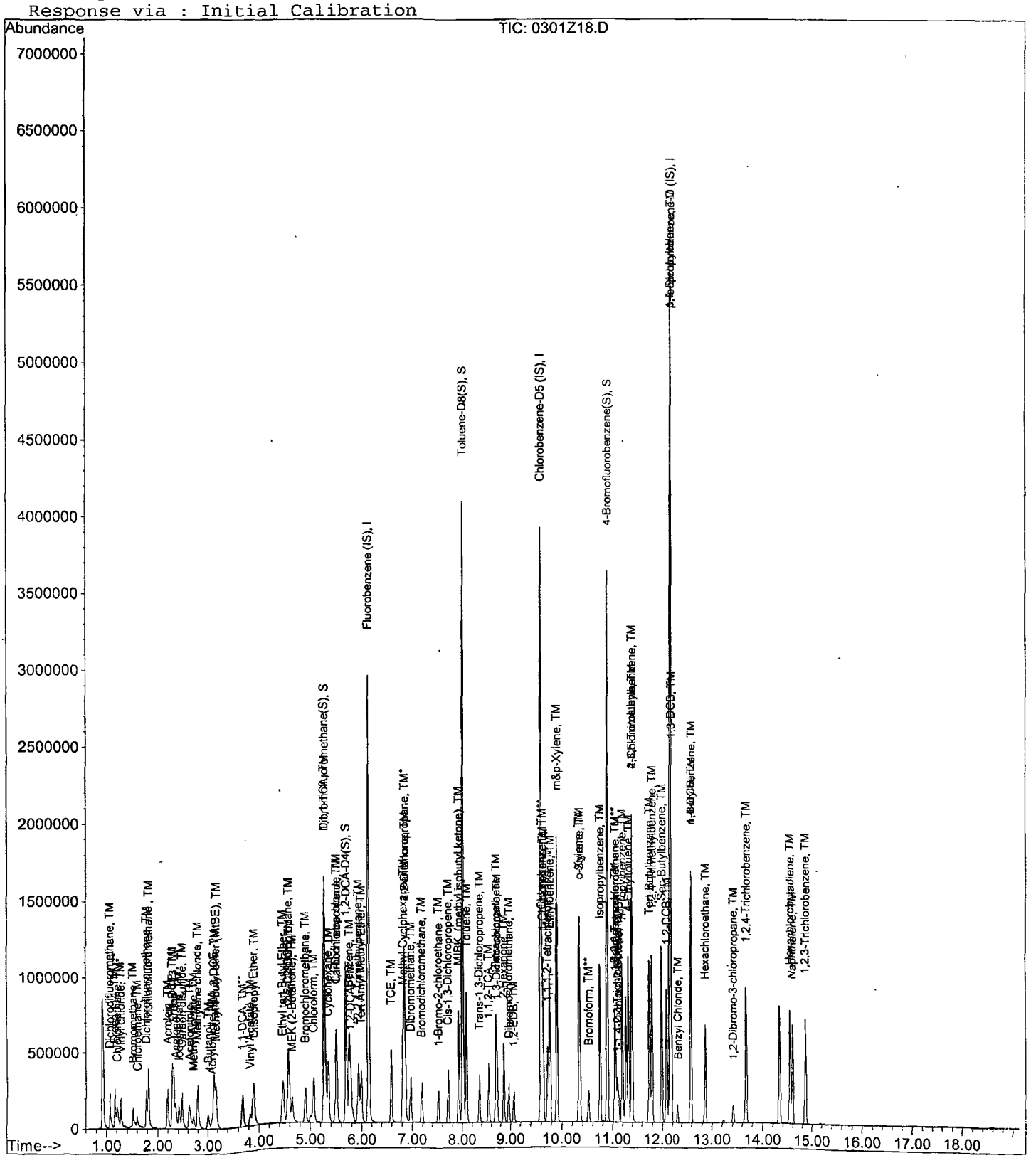
Data File : M:\ZEUS\DATA\210301\0301Z18.D
Acq On : 01 Mar 21 20:26
Sample : Ending CCV 10ug/L 3/1/21
Misc :

Vial: 18
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:03 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



ORGANICS

Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z15.D
Acq On : 01 Mar 21 19:16
Sample : BA27502W01
Misc :

Vial: 15
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:54 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3093978	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2513372	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1688530	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.27	111	874493	26.36 ppb	0.00
Spiked Amount 25.000			Recovery	= 105.436%	
37) 1,2-DCA-D4(S)	5.68	65	852054	26.88 ppb	0.00
Spiked Amount 25.000			Recovery	= 107.536%	
57) Toluene-D8(S)	8.01	98	2878647	26.12 ppb	0.00
Spiked Amount 25.000			Recovery	= 104.464%	
65) 4-Bromofluorobenzene(S)	10.89	95	1166788	26.09 ppb	0.00
Spiked Amount 25.000			Recovery	= 104.360%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

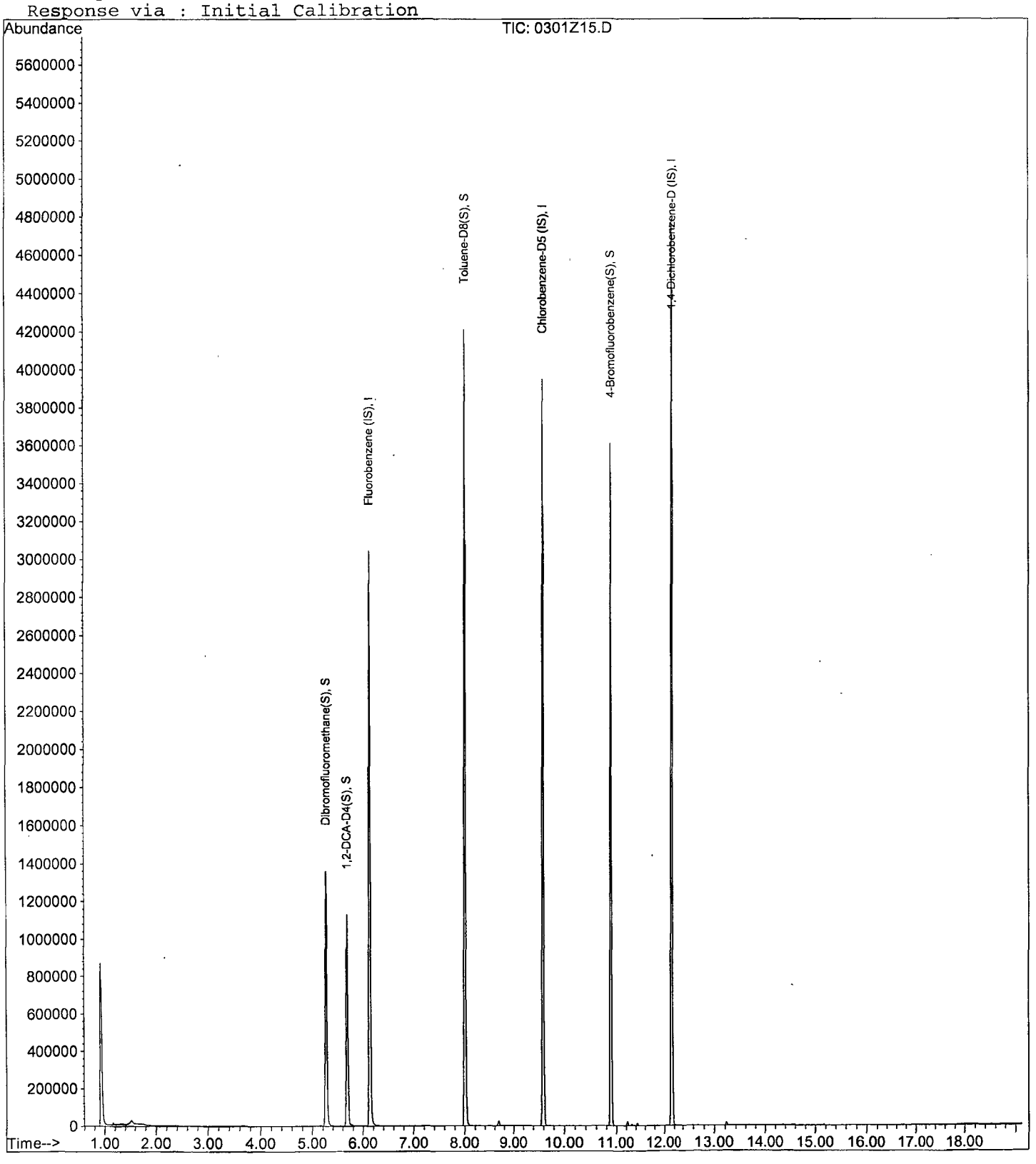
Quantitation Report

Data File : M:\ZEUS\DATA\210301\0301Z15.D
Acq On : 01 Mar 21 19:16
Sample : BA27502W01
Misc :

Vial: 15
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:54 2021 Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z16.D
Acq On : 01 Mar 21 19:39
Sample : BA27503W01
Misc :

Vial: 16
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:58 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3003365	25.00	ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2440170	25.00	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1629240	25.00	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	5.27	111	847061	26.30	ppb	0.00
Spiked Amount 25.000			Recovery	=	105.208%	
37) 1,2-DCA-D4(S)	5.68	65	813490	26.44	ppb	0.00
Spiked Amount 25.000			Recovery	=	105.768%	
57) Toluene-D8(S)	8.01	98	2749433	25.69	ppb	0.00
Spiked Amount 25.000			Recovery	=	102.768%	
65) 4-Bromofluorobenzene(S)	10.88	95	1111915	25.61	ppb	0.00
Spiked Amount 25.000			Recovery	=	102.436%	

Target Compounds						Qvalue
19) Methylene chloride	2.79	84	45472	2.00	ppb	92

(#) = qualifier out of range (m) = manual integration

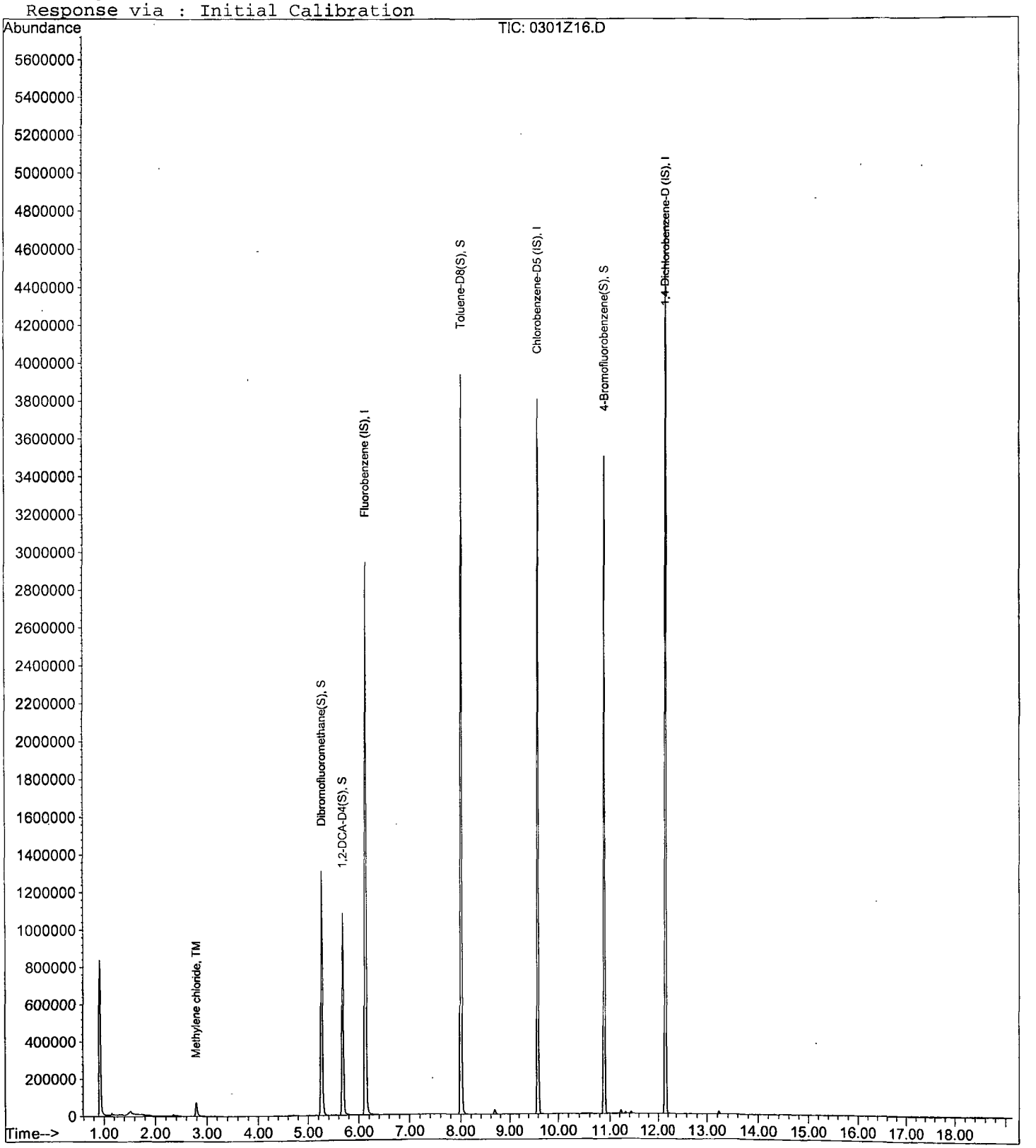
Quantitation Report

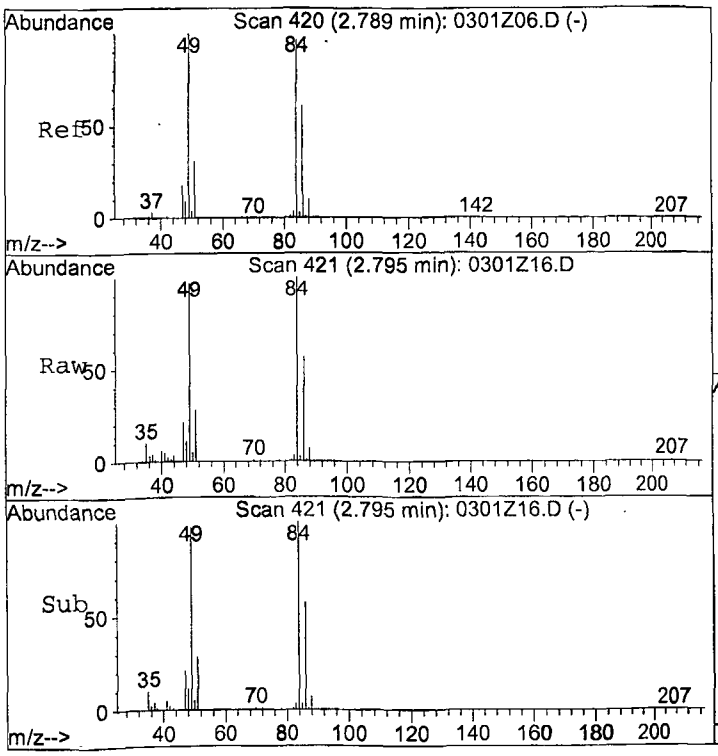
Data File : M:\ZEUS\DATA\210301\0301Z16.D
Acq On : 01 Mar 21 19:39
Sample : BA27503W01
Misc :

Vial: 16
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:58 2021 Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration

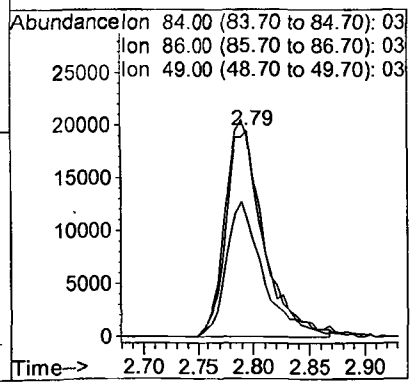




#19
Methylene chloride
Concen: 2.00 ppb
RT: 2.79 min Scan# 421
Delta R.T. 0.01 min
Lab File: 0301Z16.D
Acq: 01 Mar 21 19:39

Tgt Ion: 84 Resp: 45472

Ion	Ratio	Lower	Upper
84	100		
86	57.3	51.1	76.7
49	96.6	83.4	125.2



Quantitation Report (QT Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z17.D
Acq On : 01 Mar 21 20:03
Sample : BA27504W01
Misc :

Vial: 17
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:59 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	2934128	25.00	ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2420180	25.00	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1617965	25.00	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	5.27	111	848246	26.96	ppb	0.00
Spiked Amount 25.000			Recovery = 107.840%			
37) 1,2-DCA-D4(S)	5.68	65	812254	27.02	ppb	0.00
Spiked Amount 25.000			Recovery = 108.100%			
57) Toluene-D8(S)	8.01	98	2748396	25.89	ppb	0.00
Spiked Amount 25.000			Recovery = 103.580%			
65) 4-Bromofluorobenzene(S)	10.89	95	1109941	25.77	ppb	0.00
Spiked Amount 25.000			Recovery = 103.100%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

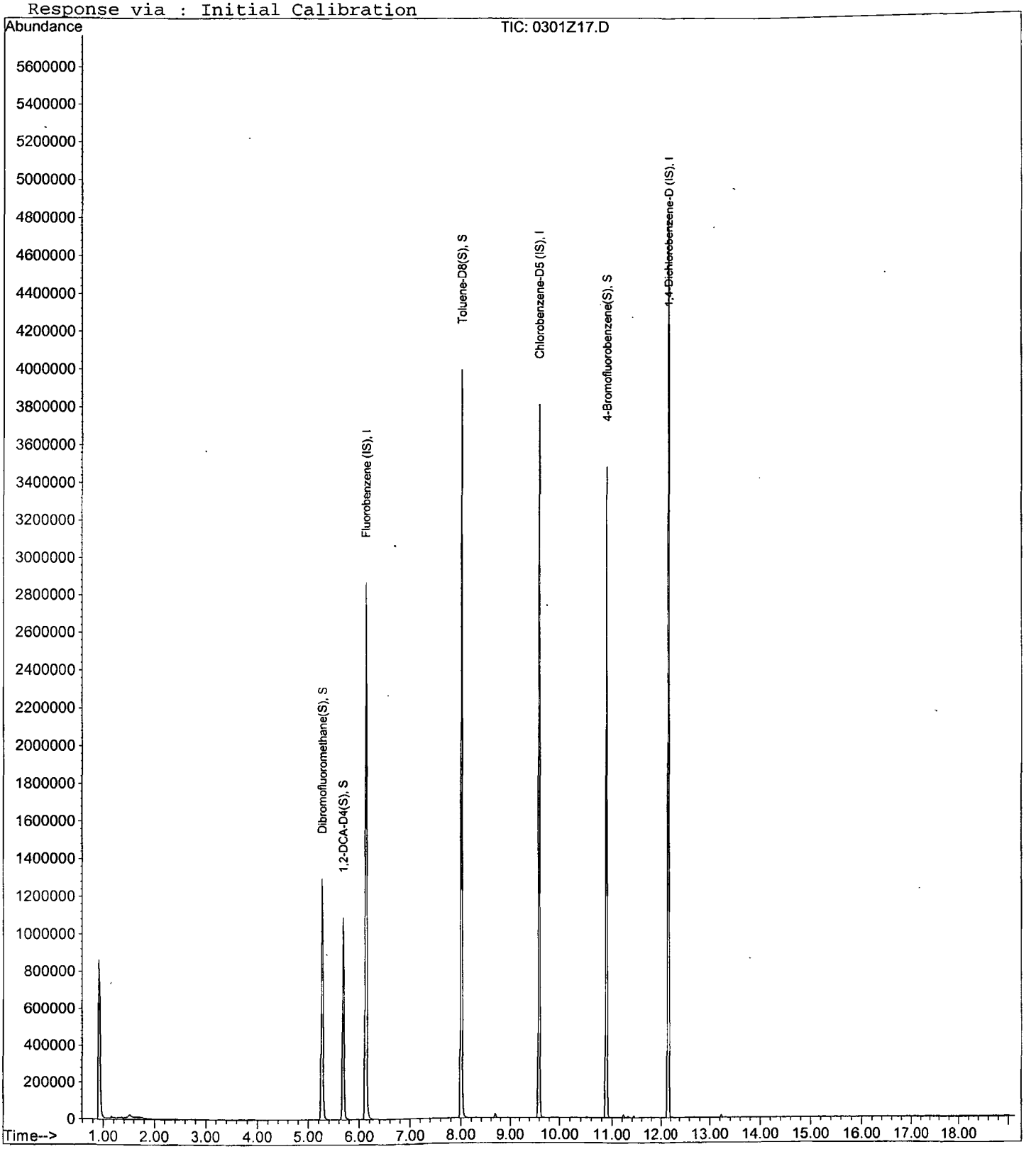
Quantitation Report

Data File : M:\ZEUS\DATA\210301\0301Z17.D
Acq On : 01 Mar 21 20:03
Sample : BA27504W01
Misc :

Vial: 17
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:59 2021 Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z14.D
Acq On : 01 Mar 21 18:53
Sample : 210301A BLK
Misc :

Vial: 14
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 26 15:41 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3138588	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2572946	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1718786	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.27	111	888280	26.39 ppb	0.00
Spiked Amount 25.000			Recovery	= 105.576%	
37) 1,2-DCA-D4(S)	5.68	65	847102	26.35 ppb	0.00
Spiked Amount 25.000			Recovery	= 105.392%	
57) Toluene-D8(S)	8.01	98	2917477	25.86 ppb	0.00
Spiked Amount 25.000			Recovery	= 103.424%	
65) 4-Bromofluorobenzene(S)	10.89	95	1187415	25.94 ppb	0.00
Spiked Amount 25.000			Recovery	= 103.744%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0301Z14.D Z5240301.M Fri Mar 26 15:44:45 2021

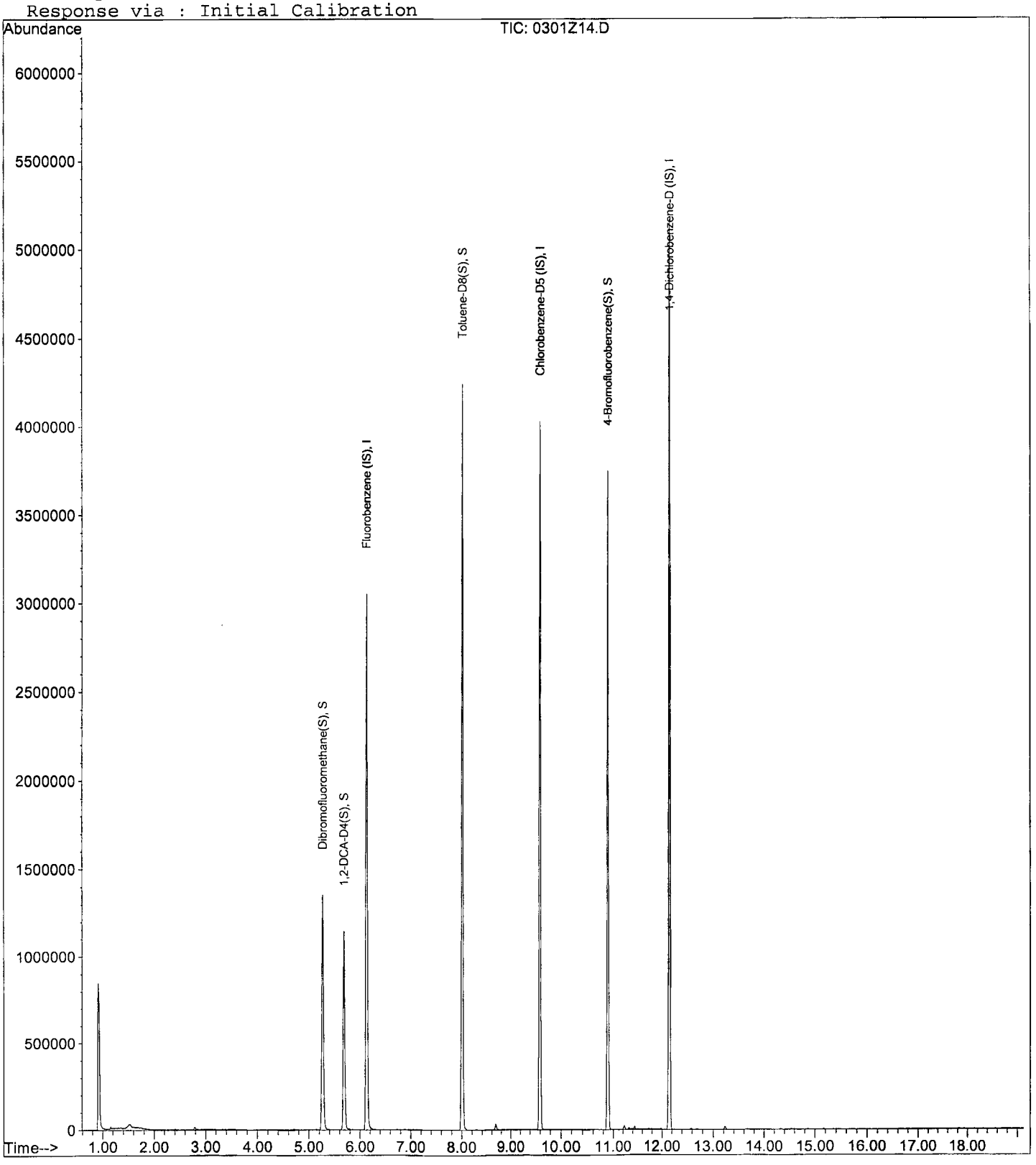
Quantitation Report

Data File : M:\ZEUS\DATA\210301\0301Z14.D
Acq On : 01 Mar 21 18:53
Sample : 210301A BLK
Misc :

Vial: 14
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 26 15:41 2021 Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z12.D Vial: 12
Acq On : 01 Mar 21 18:06 Operator: LP,DG,CH
Sample : 210301 LCS 10ug/L Inst : ZEUS
Misc : Multiplr: 1.00

Quant Time: Mar 2 10:51 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3363679	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2777463	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.15	152	1830476	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.27	111	930234	25.79 ppb	0.00
Spiked Amount 25.000			Recovery	= 103.164%	
37) 1,2-DCA-D4(S)	5.68	65	878279	25.49 ppb	0.00
Spiked Amount 25.000			Recovery	= 101.960%	
57) Toluene-D8(S)	8.01	98	3173880	26.06 ppb	0.00
Spiked Amount 25.000			Recovery	= 104.228%	
65) 4-Bromofluorobenzene(S)	10.89	95	1258891	25.47 ppb	0.00
Spiked Amount 25.000			Recovery	= 101.892%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.06	85	117840	9.98 ppb	97
3) Freon 114	1.16	85	66188	10.10 ppb	87
4) Chloromethane	1.21	50	147075	9.74 ppb	97
5) Vinyl chloride	1.27	62	140816	10.14 ppb	97
6) Bromomethane	1.52	94	53557	12.19 ppb	94
7) Chloroethane	1.59	64	26024	10.19 ppb	89
8) Dichlorofluoromethane	1.77	67	226939	11.20 ppb	97
9) Trichlorofluoromethane	1.81	101	253567	10.21 ppb	98
10) Acrolein	2.19	55	177116	129.78 ppb	98
11) Acetone	2.35	43	231051	54.06 ppb	98
12) Freon-113	2.30	101	153449	10.22 ppb	97
13) 1,1-DCE	2.28	61	202376	10.28 ppb	98
14) Acetonitrile	2.62	40	48553	128.76 ppb	99
15) t-Butanol	3.01	59	65248	143.63 ppb	94
16) Methyl Acetate	2.71	43	109181	10.26 ppb	96
17) Iodomethane	2.41	142	190569	9.22 ppb	99
18) Acrylonitrile	3.08	52	50090	10.08 ppb	95
19) Methylene chloride	2.79	84	176832	10.16 ppb	96
20) Carbon disulfide	2.47	76	172480	10.05 ppb	100
21) Methyl t-butyl ether (MtBE	3.16	73	386972	10.58 ppb	96
22) Trans-1,2-DCE	3.12	61	201004	10.46 ppb	97
23) Diisopropyl Ether	3.90	45	386786	10.78 ppb	100
24) 1,1-DCA	3.68	63	254277	10.17 ppb	98
25) Vinyl Acetate	3.83	43	175462	9.44 ppb	98
26) Ethyl tert Butyl Ether	4.46	59	365699	10.62 ppb	94
27) MEK (2-Butanone)	4.65	43	329599	55.04 ppb	95
28) Cis-1,2-DCE	4.58	61	228804	10.06 ppb	95
29) 2,2-Dichloropropane	4.56	77	214418	9.86 ppb	100
30) Chloroform	5.06	83	292534	10.48 ppb	95
31) Bromochloromethane	4.90	49	104461	9.58 ppb	98
33) 1,1,1-TCA	5.27	97	272656	10.43 ppb	99
34) Cyclohexane	5.34	56	226050	10.49 ppb	97
35) 1,1-Dichloropropene	5.50	75	202875	10.55 ppb	98
36) 2,2,4-Trimethylpentane	5.92	57	474465	10.55 ppb	100
38) Carbon Tetrachloride	5.49	117	245088	10.47 ppb	99
39) Tert Amyl Methyl Ether	5.98	73	363710	10.76 ppb	99
40) 1,2-DCA	5.78	62	196347	10.07 ppb	100
41) Benzene	5.75	78	619523	10.29 ppb	100
42) TCE	6.59	130	198832	10.40 ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z12.D
Acq On : 01 Mar 21 18:06
Sample : 210301 LCS 10ug/L
Misc :

Vial: 12
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	2-Pentanone	6.85	43	1326738	128.09 ppb		100
44)	1,2-Dichloropropane	6.84	63	151875	10.40 ppb	#	95
45)	Bromodichloromethane	7.18	83	188253	10.38 ppb		94
46)	Methyl Cyclohexane	6.81	83	260268	10.76 ppb		99
47)	Dibromomethane	6.96	174	149144	10.23 ppb		94
48)	MIBK (methyl isobutyl ket	7.92	43	625940	51.43 ppb		99
49)	1-Bromo-2-chloroethane	7.52	144	29149	10.08 ppb		92
51)	Cis-1,3-Dichloropropene	7.71	75	225919	10.63 ppb		99
52)	Toluene	8.08	91	683340	10.45 ppb		99
53)	Trans-1,3-Dichloropropene	8.35	75	204187	10.62 ppb		97
54)	1,1,2-TCA	8.54	97	140779	10.56 ppb		96
55)	2-Hexanone	8.86	43	432050	52.16 ppb		98
58)	1,2-EDB	9.07	107	155174	10.77 ppb		95
59)	Tetrachloroethene	8.69	166	251327	10.28 ppb		97
60)	1-Chlorohexane	9.64	91	219924	10.84 ppb		98
61)	1,1,1,2-Tetrachloroethane	9.73	131	167141	10.42 ppb		97
62)	m&p-Xylene	9.90	91	1219904	21.56 ppb		100
63)	o-Xylene	10.33	91	623044	10.94 ppb		99
64)	Styrene	10.34	104	456621	10.94 ppb		93
66)	1,3-Dichloropropane	8.71	76	228300	10.42 ppb		96
67)	Dibromochloromethane	8.96	129	152273	9.65 ppb		92
68)	Chlorobenzene	9.63	112	489934	10.32 ppb		99
69)	Ethylbenzene	9.77	91	783422	10.72 ppb		100
70)	Bromoform	10.52	173	120747	9.43 ppb		100
72)	Isopropylbenzene	10.74	105	799296	10.51 ppb		98
73)	1,1,2,2-Tetrachloroethane	11.06	83	174450	10.20 ppb		96
74)	1,2,3-Trichloropropane	11.09	110	69568	10.57 ppb		94
75)	t-1,4-Dichloro-2-Butene	11.12	53	37449	9.87 ppb		99
76)	Bromobenzene	11.04	77	267057	9.89 ppb		90
77)	n-Propylbenzene	11.19	91	901566	10.51 ppb		98
78)	4-Ethyltoluene	11.31	105	799158	10.62 ppb		100
79)	2-Chlorotoluene	11.38	91	631121	10.39 ppb		99
80)	1,3,5-Trimethylbenzene	11.39	105	690097	10.64 ppb		97
81)	4-Chlorotoluene	11.38	91	631121	10.39 ppb		99
82)	Tert-Butylbenzene	11.74	119	631695	10.50 ppb		98
83)	1,2,4-Trimethylbenzene	11.79	105	704215	10.88 ppb		100
84)	Sec-Butylbenzene	11.98	105	897931	10.92 ppb		99
85)	p-Isopropyltoluene	12.14	119	824718	10.75 ppb		99
86)	Benzyl Chloride	12.32	91	123075	9.12 ppb		99
87)	1,3-DCB	12.17	146	473448	10.04 ppb		97
88)	1,4-DCB	12.57	146	442344	10.29 ppb		97
89)	n-Butylbenzene	12.59	91	703499	11.30 ppb		99
90)	1,2-DCB	12.07	146	476508	10.26 ppb		99
91)	Hexachloroethane	12.86	201	139490	9.54 ppb		98
92)	1,2-Dibromo-3-chloropropan	13.42	157	53758	9.64 ppb		98
93)	1,2,4-Trichlorobenzene	13.66	180	403680	10.32 ppb		96
94)	Hexachlorobutadiene	14.54	225	223179	10.48 ppb		98
95)	Naphthalene	14.60	128	766482	10.11 ppb		100
96)	1,2,3-Trichlorobenzene	14.86	180	334574	10.58 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

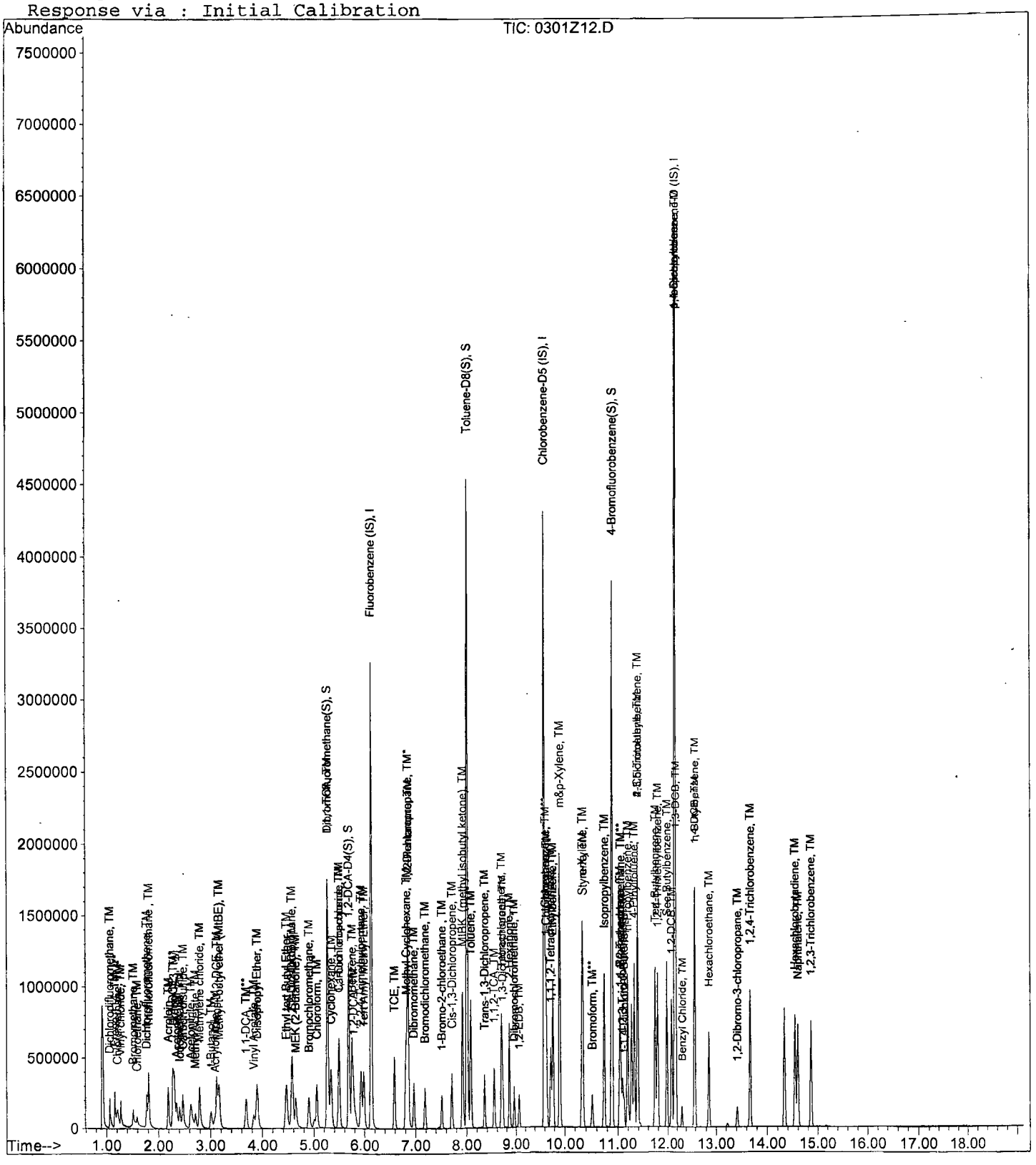
Data File : M:\ZEUS\DATA\210301\0301Z12.D
Acq On : 01 Mar 21 18:06
Sample : 210301 LCS 10ug/L
Misc :

Vial: 12
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 10:51 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z13.D
Acq On : 01 Mar 21 18:30
Sample : 210301A LCSD 10ug/L
Misc :

Vial: 13
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:03 2021

Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.13	96	3290473	25.00 ppb	0.00
56) Chlorobenzene-D5 (IS)	9.59	117	2711944	25.00 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	12.14	152	1795743	25.00 ppb	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(S)	5.27	111	906854	25.70 ppb	0.00
Spiked Amount 25.000			Recovery	= 102.808%	
37) 1,2-DCA-D4(S)	5.68	65	857491	25.44 ppb	0.00
Spiked Amount 25.000			Recovery	= 101.760%	
57) Toluene-D8(S)	8.01	98	3087633	25.96 ppb	0.00
Spiked Amount 25.000			Recovery	= 103.844%	
65) 4-Bromofluorobenzene(S)	10.88	95	1245045	25.80 ppb	0.00
Spiked Amount 25.000			Recovery	= 103.204%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.06	85	117208	10.15 ppb	97
3) Freon 114	1.15	85	62181	9.70 ppb	98
4) Chloromethane	1.21	50	144647	9.79 ppb	97
5) Vinyl chloride	1.27	62	133229	9.81 ppb	98
6) Bromomethane	1.52	94	51981	12.09 ppb	98
7) Chloroethane	1.59	64	25408	10.17 ppb	100
8) Dichlorofluoromethane	1.77	67	212021	10.64 ppb	99
9) Trichlorofluoromethane	1.81	101	245687	10.11 ppb	98
10) Acrolein	2.19	55	177222	132.74 ppb	98
11) Acetone	2.35	43	232765	55.67 ppb	99
12) Freon-113	2.30	101	143064	9.74 ppb	96
13) 1,1-DCE	2.28	61	191574	9.94 ppb	99
14) Acetonitrile	2.62	40	47993	130.11 ppb	96
15) t-Butanol	3.01	59	65520	147.44 ppb	96
16) Methyl Acetate	2.71	43	109422	10.53 ppb	93
17) Iodomethane	2.41	142	189577	9.38 ppb	98
18) Acrylonitrile	3.08	52	51247	10.54 ppb	95
19) Methylene chloride	2.79	84	176827	10.41 ppb	98
20) Carbon disulfide	2.47	76	162816	9.70 ppb	98
21) Methyl t-butyl ether (MtBE	3.16	73	390625	10.92 ppb	99
22) Trans-1,2-DCE	3.12	61	196912	10.47 ppb	96
23) Diisopropyl Ether	3.90	45	388830	11.08 ppb	100
24) 1,1-DCA	3.68	63	255817	10.46 ppb	97
25) Vinyl Acetate	3.83	43	177029	9.70 ppb	98
26) Ethyl tert Butyl Ether	4.46	59	368897	10.95 ppb	98
27) MEK (2-Butanone)	4.65	43	321748	54.92 ppb	94
28) Cis-1,2-DCE	4.57	61	227468	10.23 ppb	96
29) 2,2-Dichloropropane	4.56	77	206939	9.72 ppb	97
30) Chloroform	5.06	83	285717	10.46 ppb	97
31) Bromochloromethane	4.90	49	107820	10.10 ppb	97
33) 1,1,1-TCA	5.27	97	263875	10.32 ppb	98
34) Cyclohexane	5.34	56	214797	10.19 ppb	96
35) 1,1-Dichloropropene	5.50	75	192592	10.24 ppb	96
36) 2,2,4-Trimethylpentane	5.92	57	445792	10.13 ppb	98
38) Carbon Tetrachloride	5.49	117	232517	10.15 ppb	97
39) Tert Amyl Methyl Ether	5.98	73	367975	11.13 ppb	98
40) 1,2-DCA	5.78	62	195777	10.26 ppb #	94
41) Benzene	5.75	78	616597	10.47 ppb	98
42) TCE	6.59	130	193847	10.37 ppb	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\ZEUS\DATA\210301\0301Z13.D
Acq On : 01 Mar 21 18:30
Sample : 210301A LCSD 10ug/L
Misc :

Vial: 13
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:03 2021 Quant Results File: Z5240301.RES

Quant Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration
DataAcq Meth : 122820_EST_TEST.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	6.85	43	1307327	128.90	ppb	98
44) 1,2-Dichloropropane	6.84	63	150732	10.55	ppb	96
45) Bromodichloromethane	7.18	83	190706	10.75	ppb	99
46) Methyl Cyclohexane	6.81	83	241772	10.22	ppb	98
47) Dibromomethane	6.96	174	153743	10.78	ppb	97
48) MIBK (methyl isobutyl ket	7.92	43	615269	51.65	ppb	98
49) 1-Bromo-2-chloroethane	7.51	144	31794	11.24	ppb	92
51) Cis-1,3-Dichloropropene	7.71	75	228693	11.00	ppb	99
52) Toluene	8.08	91	672295	10.51	ppb	98
53) Trans-1,3-Dichloropropene	8.35	75	203008	10.79	ppb	97
54) 1,1,2-TCA	8.54	97	143234	10.99	ppb	97
55) 2-Hexanone	8.86	43	426079	52.53	ppb	99
58) 1,2-EDB	9.07	107	156243	11.10	ppb	94
59) Tetrachloroethene	8.69	166	237689	9.96	ppb	95
60) 1-Chlorohexane	9.64	91	205833	10.39	ppb	99
61) 1,1,1,2-Tetrachloroethane	9.73	131	172270	11.00	ppb	99
62) m&p-Xylene	9.90	91	1201021	21.74	ppb	98
63) o-Xylene	10.33	91	593589	10.67	ppb	98
64) Styrene	10.34	104	450343	11.05	ppb	97
66) 1,3-Dichloropropane	8.71	76	231867	10.84	ppb	97
67) Dibromochloromethane	8.96	129	153196	9.90	ppb	92
68) Chlorobenzene	9.63	112	488474	10.53	ppb	98
69) Ethylbenzene	9.77	91	765245	10.73	ppb	99
70) Bromoform	10.52	173	121210	9.64	ppb	98
72) Isopropylbenzene	10.74	105	779058	10.44	ppb	100
73) 1,1,2,2-Tetrachloroethane	11.05	83	180027	10.73	ppb	99
74) 1,2,3-Trichloropropane	11.09	110	70926	10.98	ppb	94
75) t-1,4-Dichloro-2-Butene	11.12	53	39142	10.52	ppb	87
76) Bromobenzene	11.04	77	270351	10.21	ppb	94
77) n-Propylbenzene	11.19	91	891864	10.60	ppb	99
78) 4-Ethyltoluene	11.31	105	783139	10.61	ppb	98
79) 2-Chlorotoluene	11.38	91	634001	10.63	ppb	99
80) 1,3,5-Trimethylbenzene	11.38	105	690164	10.85	ppb	98
81) 4-Chlorotoluene	11.38	91	634001	10.63	ppb	99
82) Tert-Butylbenzene	11.73	119	609926	10.33	ppb	100
83) 1,2,4-Trimethylbenzene	11.79	105	692640	10.91	ppb	99
84) Sec-Butylbenzene	11.98	105	854695	10.59	ppb	98
85) p-Isopropyltoluene	12.14	119	785584	10.44	ppb	100
86) Benzyl Chloride	12.32	91	117717	8.94	ppb	97
87) 1,3-DCB	12.17	146	470632	10.18	ppb	98
88) 1,4-DCB	12.57	146	439400	10.42	ppb	97
89) n-Butylbenzene	12.58	91	658652	10.79	ppb	98
90) 1,2-DCB	12.07	146	475985	10.44	ppb	99
91) Hexachloroethane	12.86	201	140325	9.73	ppb	98
92) 1,2-Dibromo-3-chloropropan	13.42	157	53306	9.73	ppb	98
93) 1,2,4-Trichlorobenzene	13.66	180	400797	10.44	ppb	100
94) Hexachlorobutadiene	14.54	225	209643	10.03	ppb	96
95) Naphthalene	14.59	128	756467	10.17	ppb	99
96) 1,2,3-Trichlorobenzene	14.86	180	335463	10.82	ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

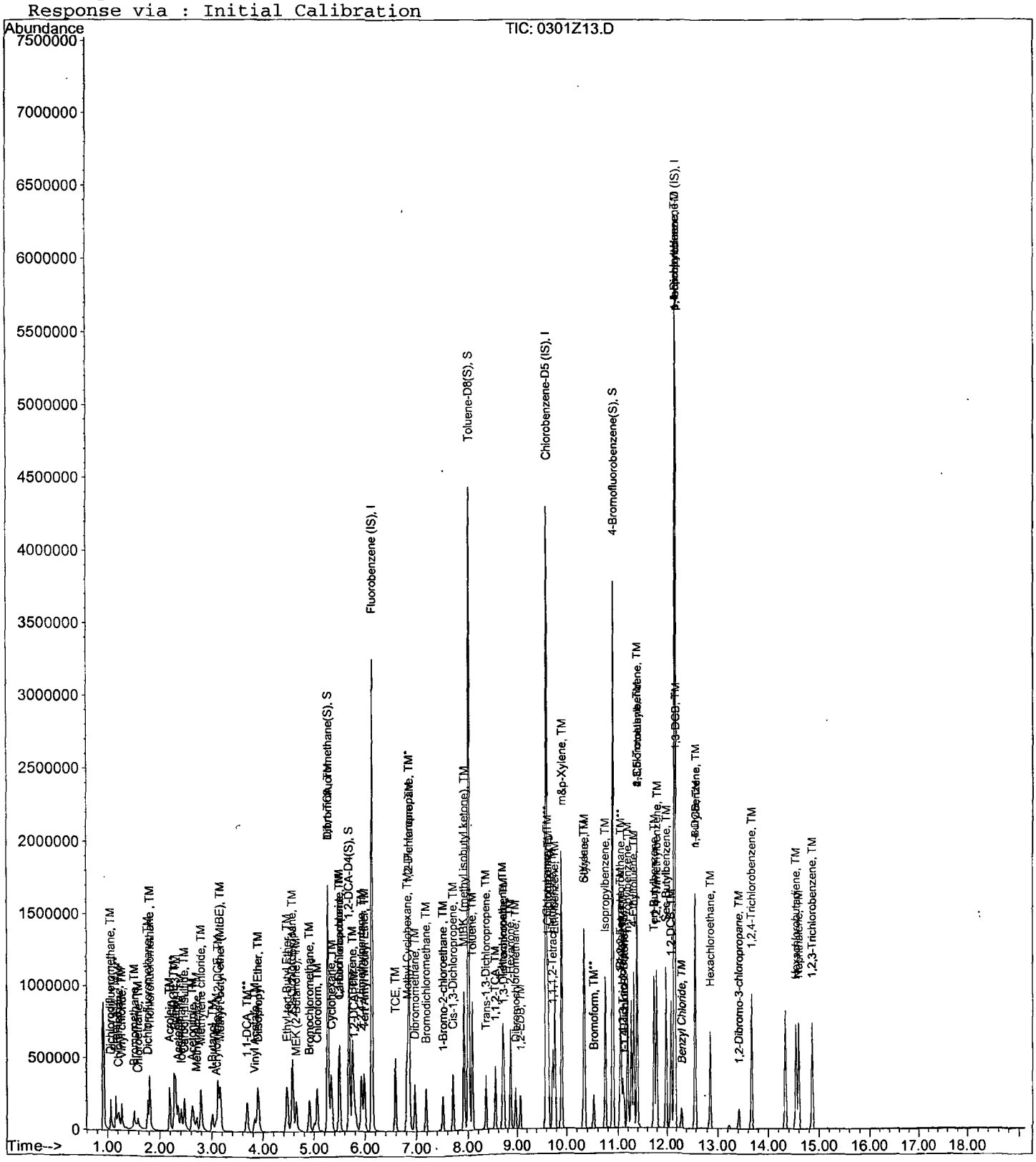
Data File : M:\ZEUS\DATA\210301\0301Z13.D
Acq On : 01 Mar 21 18:30
Sample : 210301A LCSD 10ug/L
Misc :

Vial: 13
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Quant Time: Mar 2 11:03 2021

Quant Results File: Z5240301.RES

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Mar 02 10:49:40 2021
Response via : Initial Calibration

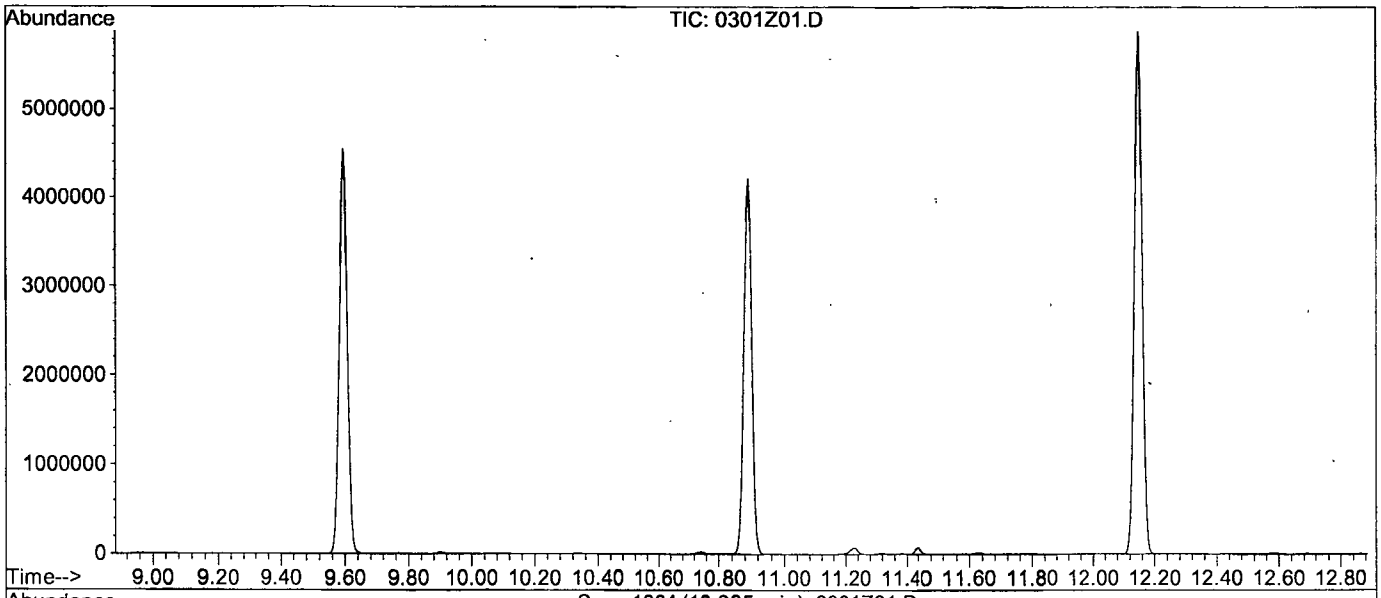


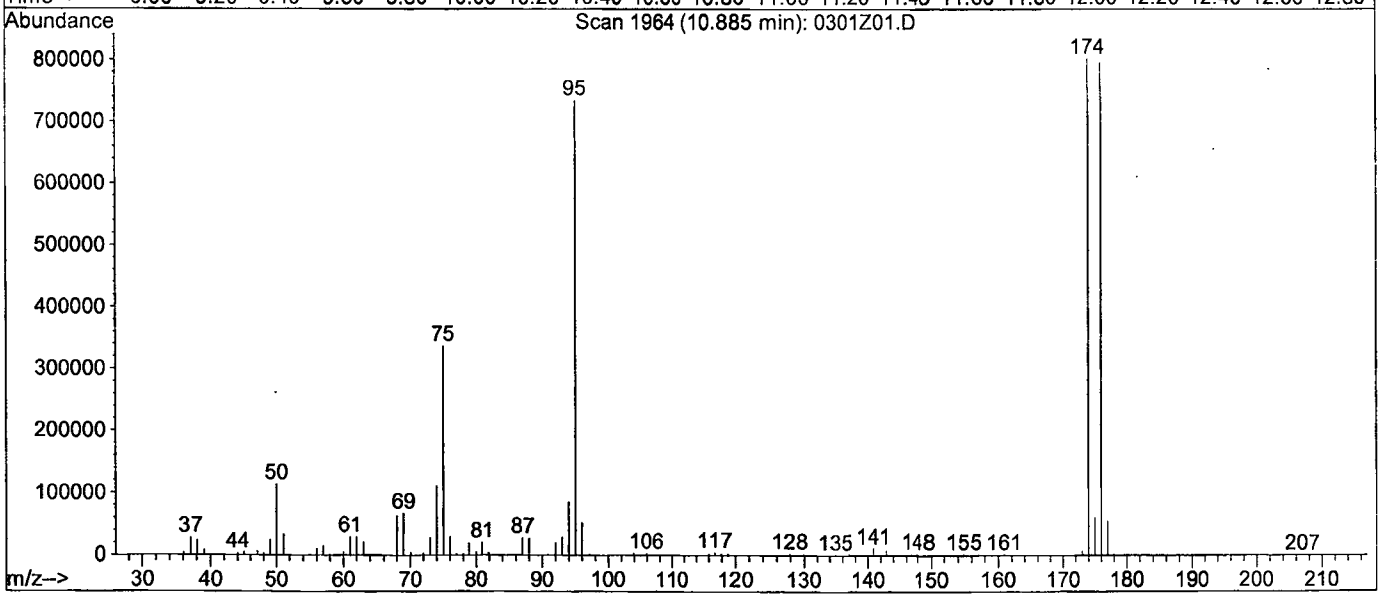
BFB

Data File : M:\ZEUS\DATA\210301\0301Z01.D
Acq On : 01 Mar 21 13:50
Sample : blk
Misc :

Vial: 1
Operator: LP,DG,CH
Inst : ZEUS
Multiplr: 1.00

Method : M:\ZEUS\DATA\210301\Z5240301.M (RTE Integrator)
Title : METHOD 8260B





Spectrum Information: Scan 1964

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	113552	PASS
75	95	30	60	45.8	336256	PASS
95	95	100	100	100.0	734720	PASS
96	95	5	9	7.1	52376	PASS
173	174	0.00	2	0.8	6250	PASS
174	95	50	200	109.2	801984	PASS
175	174	5	9	7.4	59712	PASS
176	174	95	101	99.3	796032	PASS
177	176	5	9	6.8	54072	PASS

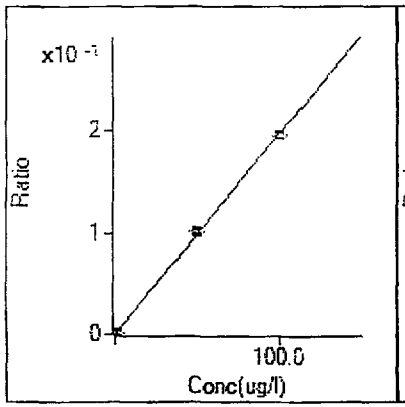
Injection Log

Directory: M:\ZEUS\DATA\210301\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0301Z00.D	1	25ug/L BFB STD 01/28/21		01 Mar 21 13:19
2	2	0301Z02.D	1	0.2ug/L HCL 3/1/21		01 Mar 21 14:13
3	3	0301Z03.D	1	0.5ug/L HCL 3/1/21		01 Mar 21 14:37
4	4	0301Z04.D	1	1ug/L HCL 3/1/21		01 Mar 21 15:00
5	5	0301Z05.D	1	5ug/L HCL 3/1/21		01 Mar 21 15:23
6	6	0301Z06.D	1	10ug/L HCL 3/1/21		01 Mar 21 15:46
7	7	0301Z07.D	1	20ug/L HCL 3/1/21		01 Mar 21 16:10
8	8	0301Z08.D	1	40ug/L HCL 3/1/21		01 Mar 21 16:33
9	9	0301Z09.D	1	100ug/L HCL 3/1/21		01 Mar 21 16:56
10	11	0301Z11.D	1	(SS) 10ug/L HCl 3/1/21		01 Mar 21 17:43
11	12	0301Z12.D	1	210301 LCS 10ug/L		01 Mar 21 18:06
12	13	0301Z13.D	1	210301A LCSD 10ug/L		01 Mar 21 18:30
13	14	0301Z14.D	1	210301A BLK		01 Mar 21 18:53
14	15	0301Z15.D	1	BA27502W01		01 Mar 21 19:16
15	16	0301Z16.D	1	BA27503W01		01 Mar 21 19:39
16	17	0301Z17.D	1	BA27504W01		01 Mar 21 20:03
17	18	0301Z18.D	1	Ending CCV 10ug/L 3/1/21		01 Mar 21 20:26

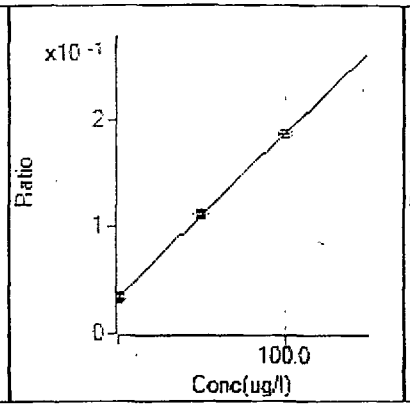
METALS

Calibration Data



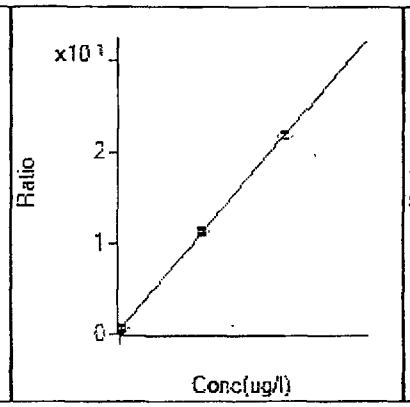
9 Be [NoGas]
ISTD: 45 Sc
y = 1.969E-3 x + 2.213E-6

R	0.9999
DL	0.005841
BEC	0.001124



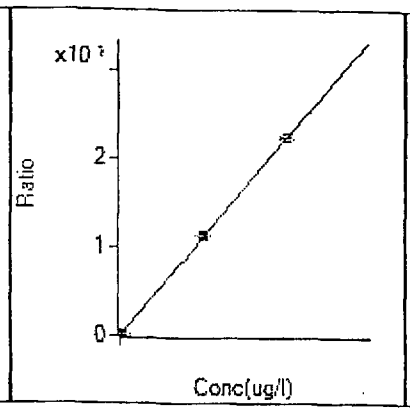
11 B [NoGas]
ISTD: 45 Sc
y = 1.526E-3 x + 3.376E-2

R	1.0000
DL	0.7481
BEC	22.12



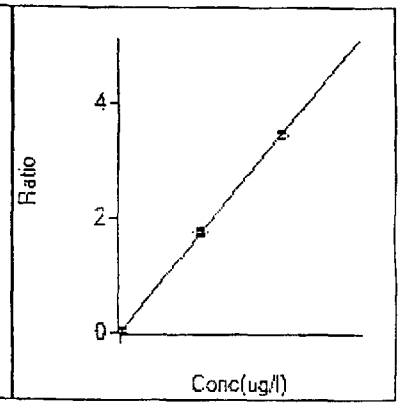
23 Na [He]
ISTD: 45 Sc
y = 8.563E-3 x + 4.226E-1

R	1.0000
DL	3.305
BEC	49.35



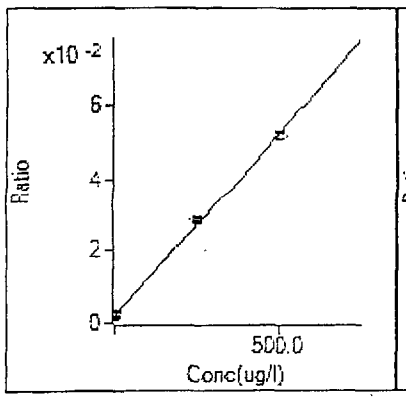
24 Mg [He]
ISTD: 45 Sc
y = 4.491E-3 x + 6.119E-4

R	1.0000
DL	0.03026
BEC	0.1363



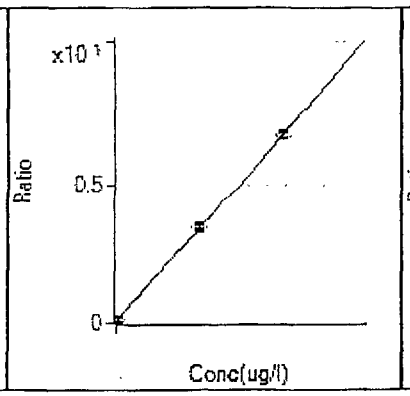
27 Al [He]
ISTD: 45 Sc
y = 1.725E-3 x + 5.741E-3

R	1.0000
DL	0.6305
BEC	3.329



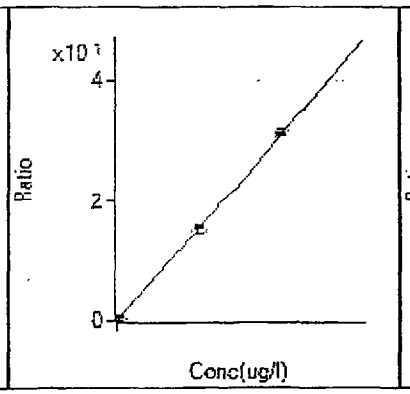
31 P [He]
ISTD: 45 Sc
y = 1.006E-4 x + 2.088E-3

R	0.9996
DL	7.755
BEC	20.75



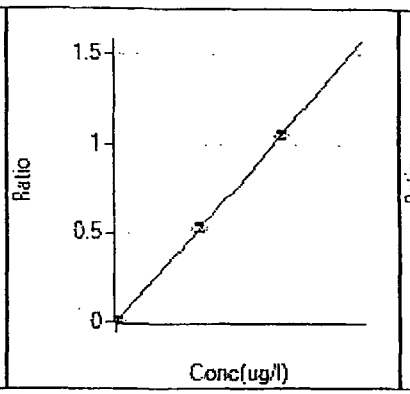
39 K [He]
ISTD: 45 Sc
y = 3.337E-3 x + 7.949E-2

R	1.0000
DL	0.9415
BEC	23.82



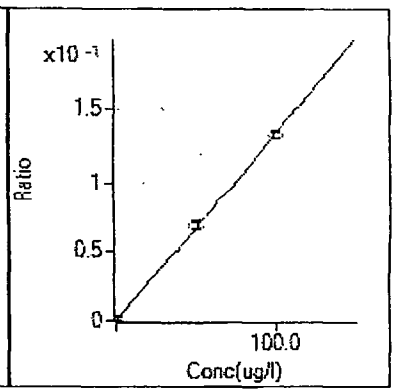
40 Ca [H2]
ISTD: 45 Sc
y = 6.225E-3 x + 3.452E-3

R	0.9999
DL	0.1614
BEC	0.5545



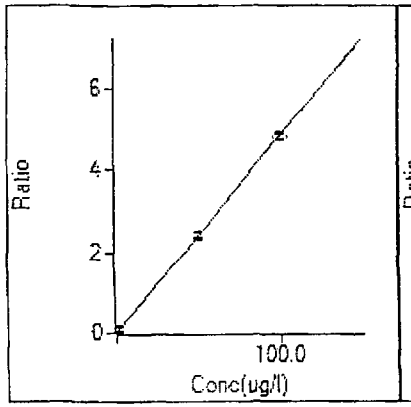
44 Ca [He]
ISTD: 45 Sc
y = 2.109E-4 x + 1.637E-4

R	1.0000
DL	0.4409
BEC	0.7762



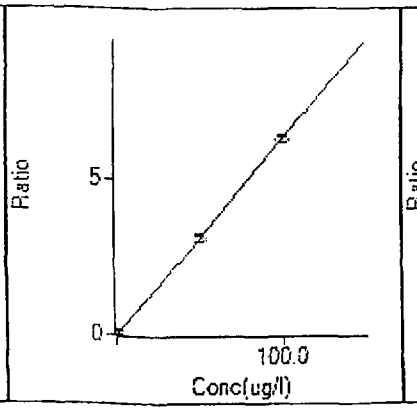
47 Ti [He]
ISTD: 45 Sc
y = 1.335E-3 x + 6.250E-5

R	0.9999
DL	0.06679
BEC	0.04681



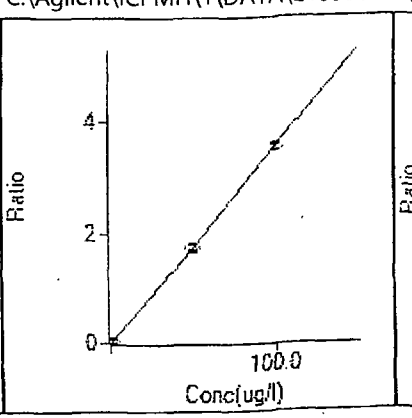
51 V [He]
ISTD: 45 Sc
y = 4.795E-2 x + 3.043E-2

R	1.0000
DL	0.03543
BEC	0.6345



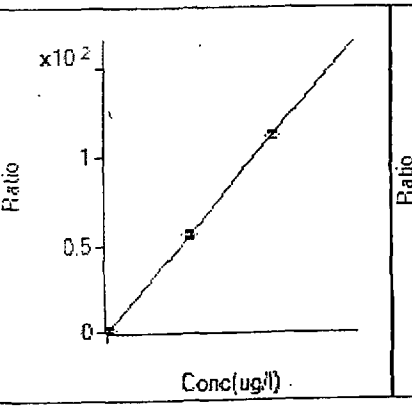
52 Cr [He]
ISTD: 45 Sc
y = 6.265E-2 x + 1.982E-3

R	1.0000
DL	0.01351
BEC	0.03164



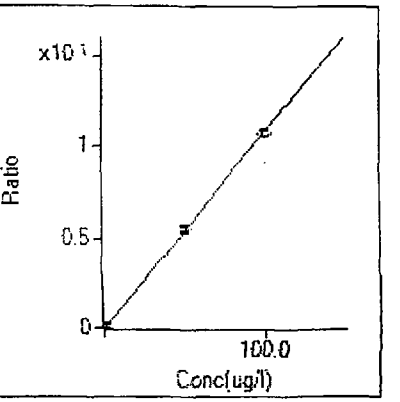
55 Mn [He]
ISTD: 45 Sc
y = 3.529E-2 x + 4.211E-4

R	1.0000
DL	0.01042
BEC	0.01193



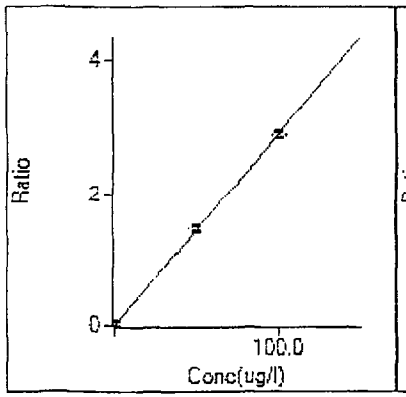
56 Fe [He]
ISTD: 45 Sc
y = 5.581E-2 x + 3.070E-2

R	1.0000
DL	0.04913
BEC	0.5502



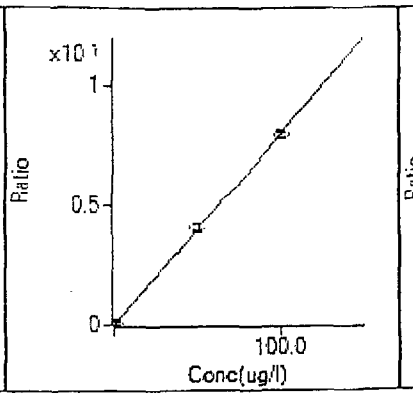
59 Co [He]
ISTD: 45 Sc
y = 1.074E-1 x + 7.362E-4

R	0.9999
DL	0.003018
BEC	0.006858



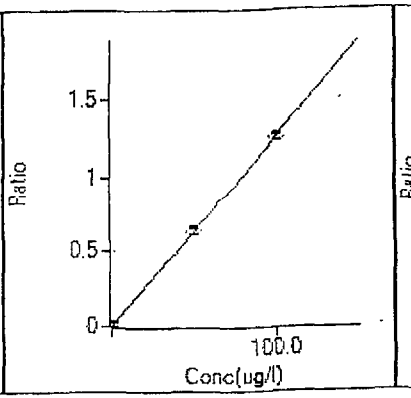
60 Ni [He]
ISTD: 45 Sc
y = 2.912E-2 x + 5.329E-4

R	1.0000
DL	0.01218
BEC	0.0183



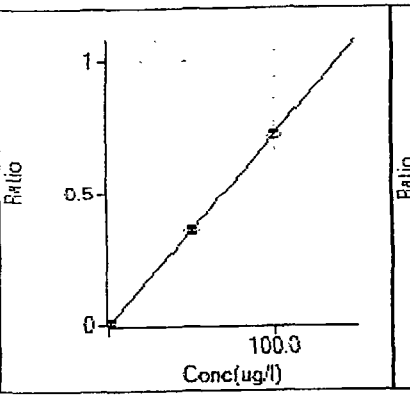
63 Cu [He]
ISTD: 45 Sc
y = 8.013E-2 x + 2.698E-3

R	1.0000
DL	0.01244
BEC	0.03366



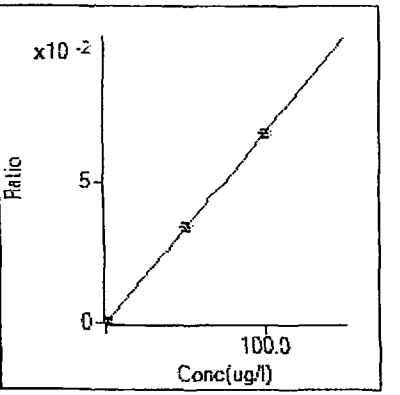
66 Zn [He]
ISTD: 72 Ge
y = 1.255E-2 x + 3.324E-3

R	1.0000
DL	0.01884
BEC	0.2649



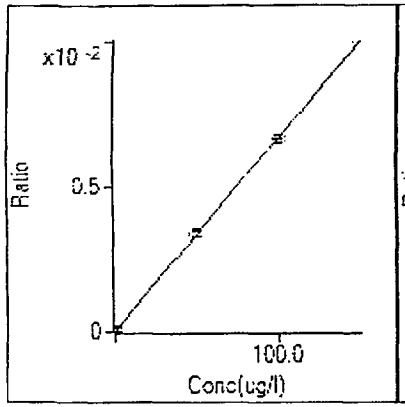
75 As [He]
ISTD: 72 Ge
y = 7.223E-3 x + 2.519E-4

R	1.0000
DL	0.01423
BEC	0.03488



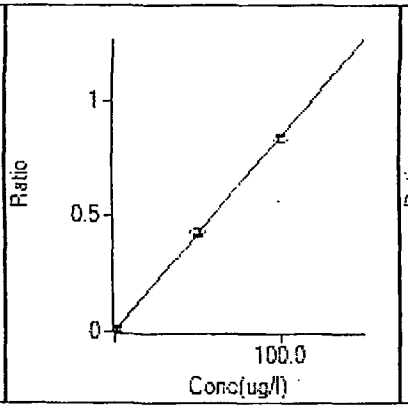
78 Se [He]
ISTD: 45 Sc
y = 6.650E-4 x + 1.071E-4

R	1.0000
DL	0.05141
BEC	0.1611



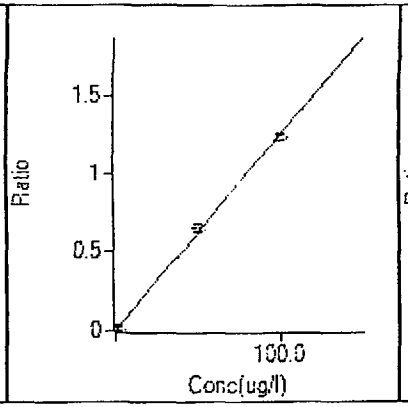
78 Se [H2]
ISTD: 115 In
y = 6.711E-5 x + 1.511E-6

R	1.0000
DL	0.02251
BEC	0.02252



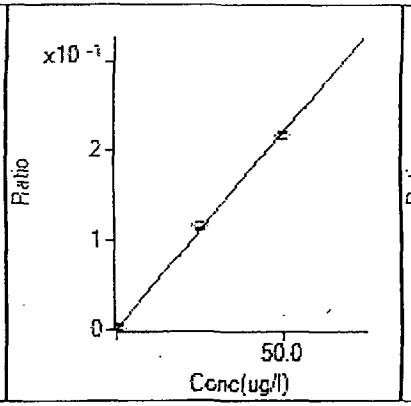
88 Sr [NoGas]
ISTD: 115 In
y = 8.431E-3 x + 6.328E-5

R	0.9999
DL	0.01752
BEC	0.007505



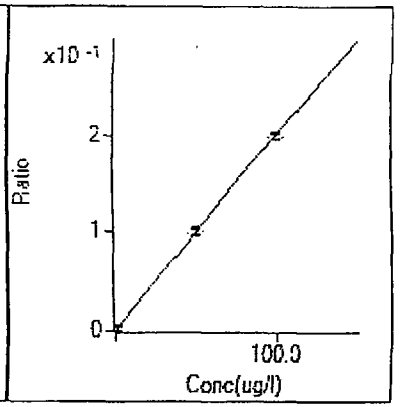
95 Mo [NoGas]
ISTD: 72 Ge
y = 1.250E-2 x + 1.725E-4

R	0.9997
DL	0.01168
BEC	0.01381



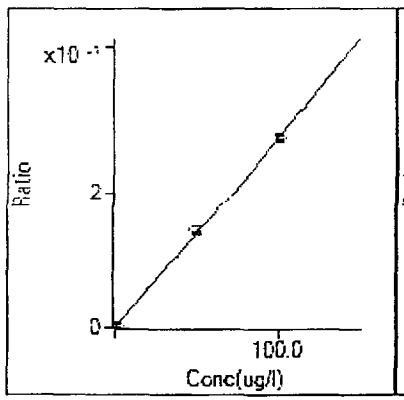
107 Ag [NoGas]
ISTD: 115 In
y = 4.397E-3 x + 6.239E-6

R	0.9996
DL	0.001331
BEC	0.001419



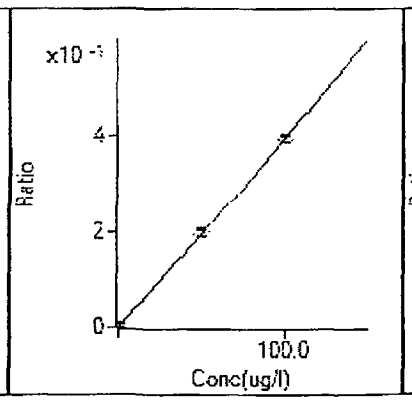
111 Cd [He]
ISTD: 115 In
y = 1.990E-3 x + 3.216E-7

R	1.0000
DL	0.0008397
BEC	0.0001616



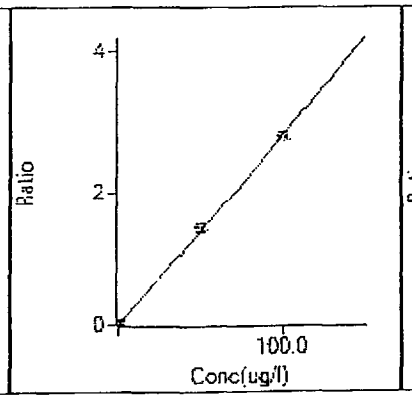
118 Sn [NoGas]
ISTD: 115 In
y = 2.767E-3 x + 5.517E-5

R	0.9998
DL	0.004445
BEC	0.01994



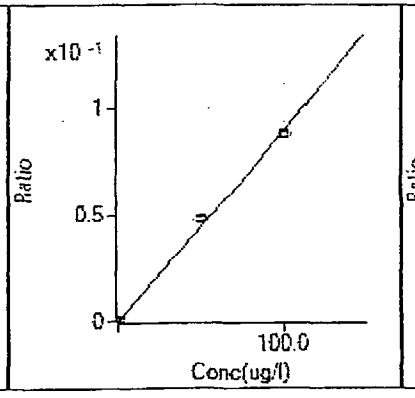
118 Sn [He]
ISTD: 115 In
y = 3.939E-3 x + 7.033E-5

R	1.0000
DL	0.005878
BEC	0.01785



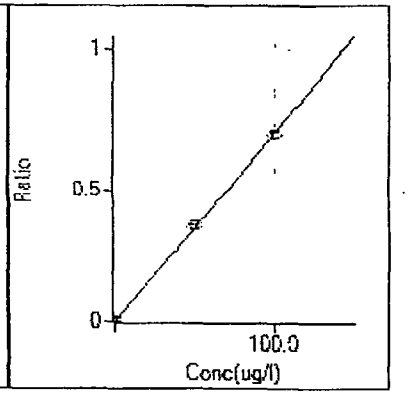
121 Sb [NoGas]
ISTD: 72 Ge
y = 2.813E-2 x + 1.558E-3

R	0.9999
DL	0.005241
BEC	0.05539



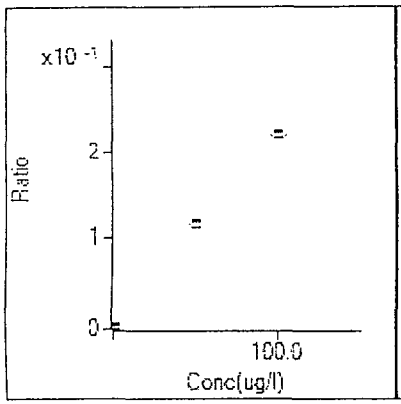
137 Ba [NoGas]
ISTD: 165 Ho
y = 9.000E-4 x + 6.073E-6

R	0.9992
DL	0.008698
BEC	0.006748

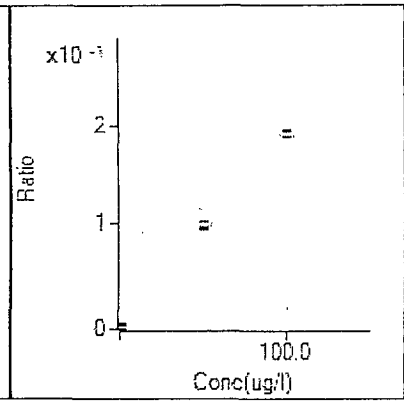


205 Tl [NoGas]
ISTD: 165 Ho
y = 7.031E-3 x + 4.221E-5

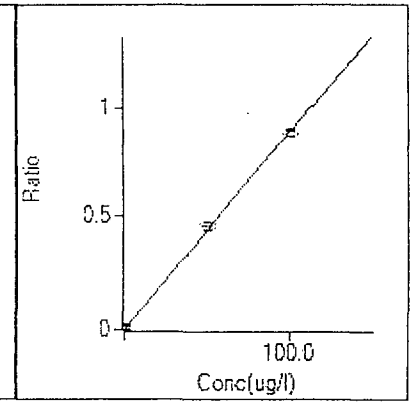
R	0.9999
DL	0.001548
BEC	0.006003



206 [Pb] [NoGas]
ISTD: 165 Ho
Excluded
R



207 [Pb] [NoGas]
ISTD: 165 Ho
Excluded
R



208 Pb [NoGas]
ISTD: 165 Ho
y = 8.905E-3 x + 5.250E-5

R	0.9999
DL	0.00425
BEC	0.005895

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 95192 SDG: 95192

Analysis Date: 03/08/21 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:19	%R(1)	True CCV1	Found 16:39	%R(1)	True CCV1	Found 19:46	%R(1)	
Lead (Pb)	50	49.7000	99.4	50	49.1890	98.4	50	46.6061	93.2	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 95192 SDG: 95192

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 03/08/21

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	12:30		16:50		20:14				17:00		
Lead (Pb)	.20	U	.20	U	.20	U			.20	U	P

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
0.5ppb LLICV	03/08/21 12:40	210308A.b	Beryllium	0.526	0.5	80-120%	105	
1.0ppb LLICV	03/08/21 12:51	210308A.b	Sodium	27.245	25	80-120%	109	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Magnesium	25.760	25	80-120%	103	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Aluminum	9.755	10	80-120%	98	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Potassium	10.865	10	80-120%	109	
0 5ppb LLICV	03/08/21 12:40	210308A.b	Calcium (He)	28.555	25	80-120%	114	
2.0ppb LLICV	03/02/21 13:01	210308A.b	Vanadium	2.140	2	80-120%	107	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Chromium	0.504	0.5	80-120%	101	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Manganese	0.504	0.5	80-120%	101	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Iron	9.799	10	80-120%	98	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Cobalt	0.508	0.5	80-120%	102	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Nickel	0.495	0.5	80-120%	99	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Copper	0.502	0.5	80-120%	100	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Zinc	0.431	0.5	80-120%	86	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Arsenic	0.509	0.5	80-120%	102	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Selenium (He)	0.487	0.5	80-120%	97	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Strontium	0.510	0.5	80-120%	102	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Molybdenum	0.542	0.5	80-120%	108	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Silver	0.252	0.25	80-120%	101	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Cadmium	0.510	0.5	80-120%	102	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Tin (He)	0.478	0.5	80-120%	96	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Antimony	0.508	0.5	80-120%	102	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Barium	0.527	0.5	80-120%	105	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Thallium	0.483	0.5	80-120%	97	
0.5ppb LLICV	03/08/21 12:40	210308A.b	Lead	0.511	0.5	80-120%	102	

Analyte	0.5ppb LLICV	1.0ppb LLICV	2.0ppb LLICV	4.0ppb LLICV	20ppb LLICV	Standard 2
Beryllium	0.5	1	2	4	20	1
Sodium	12.5	25	50	100	500	25
Magnesium	25	50	100	200	1000	50
Aluminum	10	20	40	80	400	20
Potassium	10	20	40	80	400	20
Calcium	25	50	100	200	1000	50
Vanadium	0.5	1	2	4	20	1
Chromium	0.5	1	2	4	20	1
Manganese	0.5	1	2	4	20	1
Iron	10	20	40	80	400	20
Cobalt	0.5	1	2	4	20	1
Nickel	0.5	1	2	4	20	1
Copper	0.5	1	2	4	20	1
Zinc	0.5	1	2	4	20	1
Arsenic	0.5	1	2	4	20	1
Selenium	0.5	1	2	4	20	1
Strontium	0.5	1	2	4	20	1
Molybdenum	0.5	1	2	4	20	1
Silver	0.25	0.5	1	2	10	0.5
Cadmium	0.5	1	2	4	20	1
Tin	0.5	1	2	4	20	1
Antimony	0.5	1	2	4	20	1
Barium	0.5	1	2	4	20	1
Thallium	0.5	1	2	4	20	1
Lead	0.5	1	2	4	20	1

Sample Report

Sample Name	0.5ppb LLICV 03/08/2021
File Name	015SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 12:40:42 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Flal	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	0.526	ug/l	4.5	4374.04	10000	
B	11	45	NoGas	1.316	ug/l	56.2	150898.63	10000	
Na	23	45	He	15.358	ug/l	0.7	87913.81	1000000	
Mg	24	45	He	25.760	ug/l	1.9	18449.83	1000000	
Al	27	45	He	9.755	ug/l	4.8	3580.36	1000000	
P	31	45	He	6.936	ug/l	22.9	442.01	500000	
K	39	45	He	10.865	ug/l	8.9	18363.18	500000	
Ca	40	45	H2	27.436	ug/l	6.9	8777.47	500000	
Ca	44	45	He	28.555	ug/l	7.2	981.37	500000	
Ti	47	45	He	0.551	ug/l	7.5	126.67	10000	
V	51	72	He	0.850	ug/l	1.2	11173.48	10000	
Cr	52	45	He	0.504	ug/l	0.6	5319.47	10000	
Mn	55	45	He	0.504	ug/l	5.3	2888.25	50000	
Fe	56	45	He	9.799	ug/l	1.3	91635.42	1000000	
Co	59	45	He	0.508	ug/l	1.8	8776.17	10000	
Ni	60	45	He	0.495	ug/l	3.0	2372.84	10000	
Cu	63	72	He	0.509	ug/l	5.3	6811.99	10000	
Zn	66	72	He	0.440	ug/l	3.8	1476.07	50000	
As	75	72	He	0.512	ug/l	8.3	659.68	2000	
Se	78	45	He	0.487	ug/l	17.5	68.33	10000	
Se	78	115	H2	0.531	ug/l	39.3	25.60	10000	
Sr	88	72	NoGas	0.520	ug/l	1.7	52541.98	50000	
Mo	95	72	NoGas	0.553	ug/l	4.3	10189.97	10000	
Ag	107	115	NoGas	0.252	ug/l	5.5	13415.66	5000	
Cd	111	115	He	0.510	ug/l	4.6	2002.80	10000	
Sn	118	115	He	0.478	ug/l	1.6	3853.12	10000	
Sb	121	72	NoGas	0.519	ug/l	4.0	23256.48	10000	
Ba	137	165	NoGas	0.527	ug/l	5.8	8662.53	50000	
Tl	205	165	NoGas	0.483	ug/l	1.5	62056.49	5000	
Pb	208	165	NoGas	0.511	ug/l	1.4	82929.16	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4218427.23	0.8	4573424.72	92.24	70	120	
Sc	45	He	158656.33	0.2	171064.79	92.75	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	50550.53	8.5	56451.28	89.55	70	120	
Ge	72	NoGas	1437732.95	1.6	1565899.56	91.82	70	120	
Ge	72	He	166949.41	0.2	181333.12	92.07	70	120	
Ge	72	H2	4440.58	5.0	5004.06	88.74	70	120	
In	115	NoGas	12038497.67	2.6	12777489.31	94.22	70	120	
In	115	He	1974408.84	0.8	2095093.18	94.24	70	120	
In	115	H2	695614.97	5.4	794505.95	87.55	70	120	
Tb	159	NoGas	18606104.72	1.2	19237704.71	96.72	70	120	
Tb	159	He	7059968.33	1.0	7285881.67	96.9	70	120	
Tb	159	H2	3905162.42	5.1	4258924.58	91.69	70	120	
Ho	165	NoGas	18028069.73	1.4	18570542.22	97.08	70	120	
Ho	165	He	7299970.50	0.6	7458349.67	97.88	70	120	
Ho	165	H2	4108768.92	4.7	4471257	91.89	70	120	

Sample Report

Sample Name	1.0ppb LLICV 03/08/2021
File Name	016SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 12:51:11 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	0.967	ug/l	2.3	8175.41	10000	
B	11	45	NoGas	2.048	ug/l	7.9	158243.55	10000	
Na	23	45	He	27.245	ug/l	1.4	105957.28	1000000	
Mg	24	45	He	50.632	ug/l	1.8	36828.85	1000000	
Al	27	45	He	19.884	ug/l	1.9	6467.82	1000000	
P	31	45	He	5.988	ug/l	6.0	434.68	500000	
K	39	45	He	20.798	ug/l	3.8	24053.70	500000	
Ca	40	45	H2	50.300	ug/l	1.5	16258.55	500000	
Ca	44	45	He	53.410	ug/l	4.4	1845.44	500000	
Ti	47	45	He	0.852	ug/l	12.6	194.00	10000	
V	51	72	He	1.278	ug/l	0.8	14659.28	10000	
Cr	52	45	He	0.985	ug/l	1.4	10286.96	10000	
Mn	55	45	He	0.996	ug/l	1.2	5746.28	50000	
Fe	56	45	He	19.339	ug/l	2.8	179311.22	1000000	
Co	59	45	He	0.993	ug/l	0.8	17334.32	10000	
Ni	60	45	He	0.974	ug/l	4.1	4666.64	10000	
Cu	63	72	He	1.004	ug/l	3.8	13272.25	10000	
Zn	66	72	He	0.953	ug/l	3.9	2599.54	50000	
As	75	72	He	0.971	ug/l	7.5	1235.38	2000	
Se	78	45	He	0.922	ug/l	2.5	116.33	10000	
Se	78	115	H2	0.995	ug/l	12.8	49.47	10000	
Sr	88	72	NoGas	0.992	ug/l	1.8	102810.02	50000	
Mo	95	72	NoGas	1.000	ug/l	4.2	18814.01	10000	
Ag	107	115	NoGas	0.483	ug/l	1.8	26260.51	5000	
Cd	111	115	He	0.990	ug/l	4.4	3967.14	10000	
Sn	118	115	He	0.965	ug/l	4.7	7795.79	10000	
Sb	121	72	NoGas	0.986	ug/l	3.6	43519.20	10000	
Ba	137	165	NoGas	1.067	ug/l	3.3	17449.50	50000	
Tl	205	165	NoGas	0.932	ug/l	0.6	119200.88	5000	
Pb	208	165	NoGas	1.016	ug/l	1.4	164426.81	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4290509.10	2.9	4573424.72	93.81	70	120	
Sc	45	He	161542.67	0.8	171064.79	94.43	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	51362.43	1.3	56451.28	90.99	70	120	
Ge	72	NoGas	1485382.11	2.0	1565899.56	94.86	70	120	
Ge	72	He	170065.65	0.8	181333.12	93.79	70	120	
Ge	72	H2	4577.95	2.2	5004.06	91.48	70	120	
In	115	NoGas	12331751.76	3.0	12777489.31	96.51	70	120	
In	115	He	2014410.97	3.1	2095093.18	96.15	70	120	
In	115	H2	723878.35	0.6	794505.95	91.11	70	120	
Tb	159	NoGas	18852098.47	2.6	19237704.71	98	70	120	
Tb	159	He	7202450 00	1.9	7285881.67	98.85	70	120	
Tb	159	H2	4025781.92	0.2	4258924.58	94.53	70	120	
Ho	165	NoGas	18071118.90	3.0	18570542.22	97.31	70	120	
Ho	165	He	7311630.00	1.6	7458349.67	98.03	70	120	
Ho	165	H2	4240604.17	1.0	4471257	94.84	70	120	

Sample Report

Sample Name	2.0ppb LLICV 03/08/2021
File Name	017SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 1:01:39 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	1.969	ug/l	2.2	17075.09	10000	
B	11	45	NoGas	2.851	ug/l	16.8	167723.32	10000	
Na	23	45	He	50.570	ug/l	1.6	140915.90	1000000	
Mg	24	45	He	99.965	ug/l	0.9	74033.65	1000000	
Al	27	45	He	39.718	ug/l	2.0	12228.08	1000000	
P	31	45	He	12.539	ug/l	17.0	551.34	500000	
K	39	45	He	39.559	ug/l	2.4	34827.37	500000	
Ca	40	45	H2	99.860	ug/l	3.3	32329.62	500000	
Ca	44	45	He	103.123	ug/l	0.6	3608.38	500000	
Ti	47	45	He	1.850	ug/l	11.7	416.68	10000	
V	51	72	He	2.177	ug/l	4.6	21911.20	10000	
Cr	52	45	He	1.929	ug/l	1.6	20229.27	10000	
Mn	55	45	He	1.960	ug/l	1.3	11458.99	50000	
Fe	56	45	He	38.005	ug/l	1.0	354374.92	1000000	
Co	59	45	He	1.992	ug/l	1.5	35337.62	10000	
Ni	60	45	He	1.989	ug/l	1.2	9627.96	10000	
Cu	63	72	He	1.985	ug/l	1.5	26259.03	10000	
Zn	66	72	He	2.102	ug/l	3.9	5138.76	50000	
As	75	72	He	1.929	ug/l	0.8	2453.84	2000	
Se	78	45	He	1.861	ug/l	6.5	221.33	10000	
Se	78	115	H2	1.999	ug/l	3.4	100.00	10000	
Sr	88	72	NoGas	1.973	ug/l	3.2	209372.62	50000	
Mo	95	72	NoGas	1.997	ug/l	1.3	38345.88	10000	
Ag	107	115	NoGas	0.993	ug/l	2.8	55201.59	5000	
Cd	111	115	He	1.951	ug/l	3.4	7927.18	10000	
Sn	118	115	He	1.887	ug/l	1.9	15322.78	10000	
Sb	121	72	NoGas	1.945	ug/l	1.8	85872.90	10000	
Ba	137	165	NoGas	2.031	ug/l	2.9	34809.98	50000	
Tl	205	165	NoGas	1.832	ug/l	1.4	245328.33	5000	
Pb	208	165	NoGas	1.971	ug/l	2.2	334297.60	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4400445.97	1.0	4573424.72	96.22	70	120	
Sc	45	He	164707.22	2.0	171064.79	96.28	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	51749.00	2.7	56451.28	91.67	70	120	
Ge	72	NoGas	1525688.78	1.5	1565899.56	97.43	70	120	
Ge	72	He	172983.96	0.8	181333.12	95.4	70	120	
Ge	72	H2	4514.60	7.9	5004.06	90.22	70	120	
In	115	NoGas	12626580.85	1.6	12777489.31	98.82	70	120	
In	115	He	2042118.77	1.7	2095093.18	97.47	70	120	
In	115	H2	737385.14	3.3	794505.95	92.81	70	120	
Tb	159	NoGas	19658336.79	1.5	19237704.71	102.19	70	120	
Tb	159	He	7298175.50	2.2	7285881.67	100.17	70	120	
Tb	159	H2	4112783.42	3.9	4258924.58	96.57	70	120	
Ho	165	NoGas	18985103.46	1.6	18570542.22	102.23	70	120	
Ho	165	He	7471156.33	2.4	7458349.67	100.17	70	120	
Ho	165	H2	4369457.75	3.9	4471257	97.72	70	120	

Sample Report

Sample Name	4.0ppb LLICV 03/08/2021
File Name	018SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 1:12:07 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	4.083	ug/l	2.3	34352.31	10000	
B	11	45	NoGas	4.827	ug/l	3.6	175675.68	10000	
Na	23	45	He	100.497	ug/l	3.7	208963.60	1000000	
Mg	24	45	He	200.195	ug/l	4.1	146464.24	1000000	
Al	27	45	He	77.826	ug/l	4.8	22786.60	1000000	
P	31	45	He	22.675	ug/l	22.7	710.69	500000	
K	39	45	He	78.936	ug/l	4.5	55831.15	500000	
Ca	40	45	H2	194.490	ug/l	3.0	63632.21	500000	
Ca	44	45	He	197.837	ug/l	3.1	6819.98	500000	
Ti	47	45	He	3.714	ug/l	6.9	817.36	10000	
V	51	72	He	4.185	ug/l	4.5	37157.67	10000	
Cr	52	45	He	3.912	ug/l	5.8	40211.31	10000	
Mn	55	45	He	3.966	ug/l	2.3	22857.69	50000	
Fe	56	45	He	76.293	ug/l	4.3	698167.77	1000000	
Co	59	45	He	4.009	ug/l	5.3	70169.52	10000	
Ni	60	45	He	3.935	ug/l	5.4	18741.71	10000	
Cu	63	72	He	3.999	ug/l	4.1	51913.07	10000	
Zn	66	72	He	3.963	ug/l	5.0	9083.01	50000	
As	75	72	He	4.005	ug/l	5.1	4994.71	2000	
Se	78	45	He	3.651	ug/l	5.3	412.68	10000	
Se	78	115	H2	4.217	ug/l	4.3	210.53	10000	
Sr	88	72	NoGas	4.012	ug/l	1.5	413304.34	50000	
Mo	95	72	NoGas	4.048	ug/l	3.0	75330.88	10000	
Ag	107	115	NoGas	2.002	ug/l	2.3	108955.03	5000	
Cd	111	115	He	3.956	ug/l	4.1	15866.55	10000	
Sn	118	115	He	3.846	ug/l	4.2	30672.99	10000	
Sb	121	72	NoGas	3.919	ug/l	2.2	165970.65	10000	
Ba	137	165	NoGas	4.102	ug/l	1.6	67848.68	50000	
Tl	205	165	NoGas	3.748	ug/l	3.0	484049.08	5000	
Pb	208	165	NoGas	4.021	ug/l	2.2	657789.37	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4272390.35	4.6	4573424.72	93.42	70	120	
Sc	45	He	162918.82	2.5	171064.79	95.24	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	52429.10	2.2	56451.28	92.87	70	120	
Ge	72	NoGas	1485290.92	4.2	1565899.56	94.85	70	120	
Ge	72	He	171323.86	2.3	181333.12	94.48	70	120	
Ge	72	H2	4517.93	5.3	5004.06	90.29	70	120	
In	115	NoGas	12379385.01	3.8	12777489.31	96.88	70	120	
In	115	He	2016711.51	2.6	2095093.18	96.26	70	120	
In	115	H2	740379.59	2.0	794505.95	93.19	70	120	
Tb	159	NoGas	18943074.72	3.8	19237704.71	98.47	70	120	
Tb	159	He	7226408.50	2.5	7285881.67	99.18	70	120	
Tb	159	H2	4119408.25	2.1	4258924.58	96.72	70	120	
Ho	165	NoGas	18356250.56	4.9	18570542.22	98.85	70	120	
Ho	165	He	7425955.33	4.2	7458349.67	99.57	70	120	
Ho	165	H2	4365937.33	2.9	4471257	97.64	70	120	

Sample Report

Sample Name	20ppb LLICV 03/08/2021
File Name	019SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 1:22:35 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	20.032	ug/l	3.0	163546.15	10000	
B	11	45	NoGas	20.340	ug/l	1.0	268870.87	10000	
Na	23	45	He	513.497	ug/l	1.0	752738.12	1000000	
Mg	24	45	He	1030.460	ug/l	1.1	722816.89	1000000	
Al	27	45	He	402.884	ug/l	1.5	109423.72	1000000	
P	31	45	He	103.823	ug/l	6.8	1958.12	500000	
K	39	45	He	405.997	ug/l	0.7	223999.25	500000	
Ca	40	45	H2	948.631	ug/l	4.5	297101.63	500000	
Ca	44	45	He	1017.054	ug/l	2.1	33521.78	500000	
Ti	47	45	He	20.177	ug/l	7.2	4217.85	10000	
V	51	72	He	20.328	ug/l	2.4	157772.11	10000	
Cr	52	45	He	20.091	ug/l	1.6	196881.13	10000	
Mn	55	45	He	20.043	ug/l	1.9	110528.48	50000	
Fe	56	45	He	403.634	ug/l	1.7	3522965.83	1000000	
Co	59	45	He	20.434	ug/l	1.3	342731.01	10000	
Ni	60	45	He	20.097	ug/l	2.5	91502.00	10000	
Cu	63	72	He	20.237	ug/l	2.0	254907.70	10000	
Zn	66	72	He	20.005	ug/l	2.6	42546.36	50000	
As	75	72	He	19.844	ug/l	1.9	24013.57	2000	
Se	78	45	He	19.878	ug/l	4.9	2081.46	10000	
Se	78	115	H2	19.756	ug/l	3.7	950.56	10000	
Sr	88	72	NoGas	20.695	ug/l	1.4	2067033.56	50000	
Mo	95	72	NoGas	20.506	ug/l	1.0	369677.40	10000	
Ag	107	115	NoGas	10.207	ug/l	0.3	535188.62	5000	
Cd	111	115	He	19.777	ug/l	0.7	77512.65	10000	
Sn	118	115	He	19.623	ug/l	1.4	152383.64	10000	
Sb	121	72	NoGas	20.441	ug/l	0.8	831361.21	10000	
Ba	137	165	NoGas	20.695	ug/l	1.5	336077.91	50000	
Tl	205	165	NoGas	20.539	ug/l	0.5	2605565.07	5000	
Pb	208	165	NoGas	20.738	ug/l	1.3	3331658.26	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4149332.96	4.0	4573424.72	90.73	70	120	
Sc	45	He	156183.89	0.0	171064.79	91.3	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	50340.34	4.1	56451.28	89.17	70	120	
Ge	72	NoGas	1441889.35	2.4	1565899.56	92.08	70	120	
Ge	72	He	167254.97	0.1	181333.12	92.24	70	120	
Ge	72	H2	4485.92	3.0	5004.06	89.65	70	120	
In	115	NoGas	11924210.95	2.7	12777489.31	93.32	70	120	
In	115	He	1969487.57	1.0	2095093.18	94	70	120	
In	115	H2	716302.30	3.1	794505.95	90.16	70	120	
Tb	159	NoGas	18669748.89	2.8	19237704.71	97.05	70	120	
Tb	159	He	6993917.17	0.3	7285881.67	95.99	70	120	
Tb	159	H2	4059327.17	3.4	4258924.58	95.31	70	120	
Ho	165	NoGas	18037585.15	2.4	18570542.22	97.13	70	120	
Ho	165	He	7196198.33	1.0	7458349.67	96.49	70	120	
Ho	165	H2	4341749.67	2.2	4471257	97.1	70	120	

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.
Contract: AECOM
ARF No.: 95192
SDG: 95192
ICP ID Number: Megatron
ICS Source: Environmental Express

Analysis Date: 03/08/21
Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:33	Sol AB 13:43	%R(1)
Lead (Pb)		100	0.028485	84.707218	84.7

(1) Control Limits: Metals 80-120

Interference Check Solution A (ICS-A) Report

Sample Name	ICSA 03/08/2021
File Name	020ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 1:33:01 PM
Sample Type	ICSA
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Flal	Fail
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	%Low	%High	QC Flag
Be	9	45	NoGas	0.002	ug/l	87.8	20.00	-0.1	100	100	
B	11	45	NoGas	0.412	ug/l	73.0	129962.91	-8	100	100	
Na	23	45	He	46259.337	ug/l	1.3	55476244.00	50000	80	120	
Mg	24	45	He	45244.511	ug/l	1.2	28425152.00	50000	80	120	
Al	27	45	He	44849.163	ug/l	1.1	10822971.33	50000	80	120	
P	31	45	He	45918.064	ug/l	1.0	646850.29	50000	80	120	
K	39	45	He	44776.200	ug/l	1.1	20914264.00	50000	80	120	
Ca	40	45	H2	45916.005	ug/l	1.7	13544002.67	50000	80	120	
Ca	44	45	He	42816.115	ug/l	0.8	1263223.67	50000	80	120	
Ti	47	45	He	949.199	ug/l	0.5	177345.73	1000	80	120	
V	51	72	He	-0.251	ug/l	N/A	2568.20	-0.2	100	100	>RL
Cr	52	45	He	0.423	ug/l	2.4	3986.46	-2	80	120	
Mn	55	45	He	0.094	ug/l	5.8	520.68	-8	100	120	
Fe	56	45	He	45275.121	ug/l	1.3	353524906.67	50000	80	120	
Co	59	45	He	0.093	ug/l	3.8	1506.07	-1	100	100	
Ni	60	45	He	0.103	ug/l	2.6	495.34	-1	100	100	
Cu	63	72	He	0.079	ug/l	2.3	1248.05	-1	100	100	
Zn	66	72	He	0.114	ug/l	23.4	700.02	-20	100	100	
As	75	72	He	0.048	ug/l	30.0	88.67	-0.4	100	100	
Se	78	45	He	0.047	ug/l	90.9	19.33	-0.4	100	100	
Se	78	115	H2	0.097	ug/l	32.4	5.07	-0.4	100	100	
Sr	88	72	NoGas	0.429	ug/l	2.7	40106.64	-0.5	100	100	
Mo	95	72	NoGas	930.761	ug/l	1.2	15409697.27	1000	80	120	
Ag	107	115	NoGas	0.009	ug/l	3.1	500.03	-0.5	100	100	
Cd	111	115	He	0.209	ug/l	4.9	704.69	-0.5	100	100	
Sn	118	115	He	0.013	ug/l	36.3	206.67	-0.5	100	100	
Sb	121	72	NoGas	0.055	ug/l	1.3	4120.67	-0.5	100	100	
Ba	137	165	NoGas	0.022	ug/l	11.6	453.36	-1.5	100	100	
Tl	205	165	NoGas	0.012	ug/l	18.0	2170.25	-0.2	100	100	
Pb	208	165	NoGas	0.028	ug/l	6.4	5300.58	-1	100	100	

QC ISTD Table

Interference Check Solution A (ICS-A) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	3779707.97	1.4	4573424.72	82.65	70	120	
Sc	45	He	139908.59	0.5	171064.79	81.79	70	120	
Sc	45	H2	47377.89	1.8	56451.28	83.93	70	120	
Ge	72	NoGas	1324991.08	1.7	1565899.56	84.62	70	120	
Ge	72	He	147327.96	0.4	181333.12	81.25	70	120	
Ge	72	H2	4250.53	2.4	5004.06	84.94	70	120	
In	115	NoGas	10645078.84	0.8	12777489.31	83.31	70	120	
In	115	He	1697766.09	2.2	2095093.18	81.04	70	120	
In	115	H2	628235.62	1.8	794505.95	79.07	70	120	
Tb	159	NoGas	17676505.99	0.6	19237704.71	91.88	70	120	
Tb	159	He	6483845.00	1.1	7285881.67	88.99	70	120	
Tb	159	H2	3672331.92	1.4	4258924.58	86.23	70	120	
Ho	165	NoGas	17311796.82	0.2	18570542.22	93.22	70	120	
Ho	165	He	6630245.33	1.1	7458349.67	88.9	70	120	
Ho	165	H2	3891125.42	2.0	4471257	87.03	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Name	ICSAB 03/08/2021
File Name	021ICSB d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 1:43:19 PM
Sample Type	ICSB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	%Low	%High	QC Flag
Be	9	45	NoGas	43.840	ug/l	2.9	338107.10	50	80	120	
B	11	45	NoGas	0.270	ug/l	84.3	133877.91	-8	80	120	
Na	23	45	He	46293.196	ug/l	1.5	56017117.33	50000	80	120	
Mg	24	45	He	45487.697	ug/l	2.1	28835504.67	50000	80	120	
Al	27	45	He	45165.429	ug/l	1.4	10997587.67	50000	80	120	
P	31	45	He	46568.490	ug/l	1.6	661931.77	50000	80	120	
K	39	45	He	45153.642	ug/l	1.3	21281198.00	50000	80	120	
Ca	40	45	H2	46698.438	ug/l	1.5	14371036.33	50000	80	120	
Ca	44	45	He	43337.899	ug/l	1.8	1290208.50	50000	80	120	
Ti	47	45	He	964.515	ug/l	1.7	181836.30	1000	80	120	
V	51	72	He	45.524	ug/l	2.1	310604.11	50	80	120	
Cr	52	45	He	44.983	ug/l	1.2	398098.91	50	80	120	
Mn	55	45	He	44.269	ug/l	1.5	220590.94	50	80	120	
Fe	56	45	He	45665.406	ug/l	1.4	359781130.67	50000	80	120	
Co	59	45	He	44.479	ug/l	1.0	674206.87	50	80	120	
Ni	60	45	He	85.425	ug/l	1.6	351291.77	100	80	120	
Cu	63	72	He	41.617	ug/l	1.6	468334.44	50	80	120	
Zn	66	72	He	83.935	ug/l	2.7	158020.83	100	80	120	
As	75	72	He	45.675	ug/l	1.8	49373.02	50	80	120	
Se	78	45	He	44.421	ug/l	0.9	4185.50	50	80	120	
Se	78	115	H2	47.980	ug/l	0.9	2096.66	50	80	120	
Sr	88	72	NoGas	0.435	ug/l	2.5	41342.58	-5	80	120	
Mo	95	72	NoGas	977.634	ug/l	0.9	16484997.67	1050	80	120	
Ag	107	115	NoGas	84.358	ug/l	2.2	4038320.88	100	80	120	
Cd	111	115	He	88.612	ug/l	1.9	297240.10	100	80	120	
Sn	118	115	He	0.004	ug/l	45.9	144.67	-0.5	100	100	
Sb	121	72	NoGas	44.924	ug/l	1.0	1707694.93	50	80	120	
Ba	137	165	NoGas	44.162	ug/l	2.5	700390.15	50	80	120	
Tl	205	165	NoGas	41.646	ug/l	2.8	5161052.43	50	80	120	
Pb	208	165	NoGas	84.707	ug/l	2.4	13293507.20	100	80	120	

QC ISTD Table

Interference Check Solution AB (ICS-AB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	3917375.67	1.6	4573424.72	85.66	70	120	
Sc	45	He	141176.20	0.8	171064.79	82.53	70	120	
Sc	45	H2	49440.51	1.5	56451.28	87.58	70	120	
Ge	72	NoGas	1349469.46	2.6	1565899.56	86.18	70	120	
Ge	72	He	149557.63	0.4	181333.12	82.48	70	120	
Ge	72	H2	4523.93	3.3	5004.06	90.41	70	120	
In	115	NoGas	10890267.08	1.6	12777489.31	85.23	70	120	
In	115	He	1685896.59	1.4	2095093.18	80.47	70	120	
In	115	H2	650787.94	0.9	794505.95	81.91	70	120	
Tb	159	NoGas	18181375.98	1.4	19237704.71	94.51	70	120	
Tb	159	He	6473098.83	0.7	7285881.67	88.84	70	120	
Tb	159	H2	3730977.67	1.0	4258924.58	87.6	70	120	
Ho	165	NoGas	17621683.07	1.8	18570542.22	94.89	70	120	
Ho	165	He	6704744.83	0.9	7458349.67	89.9	70	120	
Ho	165	H2	3955601.92	1.0	4471257	88.47	70	120	

Calibration Blank Report

Sample Name	Calibration Blank 03/08/2021
File Name	008CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 11:25:29 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	45	NoGas	10.00	173.2
B	11	45	NoGas	154380.06	1.0
Na	23	45	He	72279.31	0.9
Mg	24	45	He	104.67	7.2
Al	27	45	He	982.70	7.7
P	31	45	He	357.34	12.9
K	39	45	He	13597.07	0.8
Ca	40	45	H2	194.67	8.2
Ca	44	45	He	28.00	18.9
Ti	47	45	He	10.67	47.2
V	51	72	He	5204.78	1.3
Cr	52	45	He	338.67	12.9
Mn	55	45	He	72.00	28.9
Fe	56	45	He	5253.46	4.1
Co	59	45	He	126.00	15.1
Ni	60	45	He	91.33	23.4
Cu	63	72	He	462.01	13.8
Zn	66	72	He	602.68	2.2
As	75	72	He	45.67	13.4
Se	78	45	He	18.33	11.4
Se	78	115	H2	1.20	33.3
Sr	88	72	NoGas	810.86	78.3
Mo	95	72	NoGas	270.01	28.0
Ag	107	115	NoGas	80.00	33.1
Cd	111	115	He	0.67	173.2
Sn	118	115	He	147.33	11.0
Sb	121	72	NoGas	2440.26	3.3
Ba	137	165	NoGas	113.34	44.4
Tl	205	165	NoGas	783.39	7.8
[Pb]	206	165	NoGas	263.35	13.3
[Pb]	207	165	NoGas	220.01	47.5
Pb	208	165	NoGas	976.72	25.0

QC ISTD Table

Calibration Blank Report

Name	Mass	Tune Mode	CPS	CPS RSD
Sc	45	NoGas	4573424.72	1.6
Sc	45	He	171064.79	1.4
Sc	45	H2	56451.28	2.7
Ge	72	NoGas	1565899.56	0.4
Ge	72	He	181333.12	1.2
Ge	72	H2	5004.06	0.8
In	115	NoGas	12777489.31	2.1
In	115	He	2095093.18	1.8
In	115	H2	794505.95	1.5
Tb	159	NoGas	19237704.71	1.0
Tb	159	He	7285881.67	1.5
Tb	159	H2	4258924.58	1.7
Ho	165	NoGas	18570542.22	1.8
Ho	165	He	7458349.67	1.8
Ho	165	H2	4471257.00	1.4

Calibration Standard Report

Sample Name	Standard 1 03/08/2021
File Name	009CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 11:36:47 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	45	NoGas	916.72	10.1
B	11	45	NoGas	157803.65	2.0
Na	23	45	He	78777.13	0.3
Mg	24	45	He	4035.13	4.4
Al	27	45	He	1626.08	7.0
P	31	45	He	358.68	3.6
K	39	45	He	14649.21	1.6
Ca	40	45	H2	2184.15	3.6
Ca	44	45	He	222.00	10.4
Ti	47	45	He	30.67	27.2
V	51	72	He	5775.63	1.3
Cr	52	45	He	1416.73	6.9
Mn	55	45	He	734.02	4.4
Fe	56	45	He	23760.78	2.2
Co	59	45	He	1972.12	1.6
Ni	60	45	He	636.69	2.3
Cu	63	72	He	1864.11	2.9
Zn	66	72	He	783.36	10.7
As	75	72	He	167.33	6.9
Se	78	45	He	36.33	16.8
Se	78	115	H2	5.60	50.0
Sr	88	72	NoGas	12254.65	1.4
Mo	95	72	NoGas	2123.55	9.4
Ag	107	115	NoGas	3143.74	5.3
Cd	111	115	He	448.01	8.7
Sn	118	115	He	921.37	3.9
Sb	121	72	NoGas	6484.83	2.9
Ba	137	165	NoGas	2140.22	4.3
Tl	205	165	NoGas	12948.98	0.6
[Pb]	206	165	NoGas	4887.63	6.5
[Pb]	207	165	NoGas	3900.67	6.1
Pb	208	165	NoGas	18961.96	3.0

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4580761.91	0.1	4573424.72	100.16	70	120	
Sc	45	He	169445.83	0.6	171064.79	99.05	70	120	
Sc	45	H2	55313.41	5.8	56451.28	97.98	70	120	
Ge	72	NoGas	1582248.31	1.3	1565899.56	101.04	70	120	
Ge	72	He	179285.95	0.9	181333.12	98.87	70	120	
Ge	72	H2	5044.74	8.3	5004.06	100.81	70	120	
In	115	NoGas	12811143.88	0.4	12777489.31	100.26	70	120	
In	115	He	2114300.27	0.2	2095093.18	100.92	70	120	
In	115	H2	783244.19	5.3	794505.95	98.58	70	120	
Tb	159	NoGas	19642101.79	1.7	19237704.71	102.1	70	120	
Tb	159	He	7373414.83	1.3	7285881.67	101.2	70	120	
Tb	159	H2	4174460.75	5.2	4258924.58	98.02	70	120	
Ho	165	NoGas	18800906.80	1.1	18570542.22	101.24	70	120	
Ho	165	He	7527639.50	0.3	7458349.67	100.93	70	120	
Ho	165	H2	4434452.25	5.4	4471257	99.18	70	120	

Calibration Standard Report

Sample Name	Standard 2 03/08/2021
File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 11:47:33 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	45	NoGas	8615.69	1.8
B	11	45	NoGas	157942.77	0.2
Na	23	45	He	109378.05	0.8
Mg	24	45	He	38630.36	0.9
Al	27	45	He	6841.30	0.1
P	31	45	He	429.34	1.8
K	39	45	He	24956.90	0.9
Ca	40	45	H2	17687.22	3.0
Ca	44	45	He	1852.11	3.0
Ti	47	45	He	236.00	6.1
V	51	72	He	12720.49	0.6
Cr	52	45	He	10881.28	1.1
Mn	55	45	He	6008.36	0.5
Fe	56	45	He	188907.39	0.8
Co	59	45	He	18681.63	2.2
Ni	60	45	He	4935.37	3.5
Cu	63	72	He	14153.58	0.8
Zn	66	72	He	2856.92	8.2
As	75	72	He	1346.39	2.4
Se	78	45	He	123.33	6.8
Se	78	115	H2	59.47	7.6
Sr	88	72	NoGas	109515.21	0.3
Mo	95	72	NoGas	20249.07	4.4
Ag	107	115	NoGas	28394.08	4.9
Cd	111	115	He	4034.49	2.7
Sn	118	115	He	7935.86	1.2
Sb	121	72	NoGas	44254.50	1.3
Ba	137	165	NoGas	18233.70	3.2
Tl	205	165	NoGas	122215.80	1.5
[Pb]	206	165	NoGas	41621.24	2.8
[Pb]	207	165	NoGas	36044.52	3.5
Pb	208	165	NoGas	166741.16	1.9

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4508816.60	1.9	4573424.72	98.59	70	120	
Sc	45	He	167744.36	0.3	171064.79	98.06	70	120	
Sc	45	H2	55645.56	1.5	56451.28	98.57	70	120	
Ge	72	NoGas	1556213.16	0.9	1565899.56	99.38	70	120	
Ge	72	He	176281.74	0.9	181333.12	97.21	70	120	
Ge	72	H2	5100.75	1.5	5004.06	101.93	70	120	
In	115	NoGas	12599237.15	2.2	12777489.31	98.6	70	120	
In	115	He	2056948.59	1.1	2095093.18	98.18	70	120	
In	115	H2	779525.72	2.6	794505.95	98.11	70	120	
Tb	159	NoGas	19150480.13	2.4	19237704.71	99.55	70	120	
Tb	159	He	7237815.17	0.7	7285881.67	99.34	70	120	
Tb	159	H2	4218000.42	2.6	4258924.58	99.04	70	120	
Ho	165	NoGas	18559172.22	2.3	18570542.22	99.94	70	120	
Ho	165	He	7416063.50	1.1	7458349.67	99.43	70	120	
Ho	165	H2	4450542.50	2.7	4471257	99.54	70	120	

Calibration Standard Report

Sample Name	Standard 3 03/08/2021
File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 11:58:18 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	45	NoGas	433342.45	0.4
B	11	45	NoGas	476698.04	1.0
Na	23	45	He	1769867.67	0.6
Mg	24	45	He	1784816.21	1.2
Al	27	45	He	275277.94	0.8
P	31	45	He	4478.57	0.5
K	39	45	He	540037.92	0.9
Ca	40	45	H2	759412.31	0.4
Ca	44	45	He	83555.13	0.8
Ti	47	45	He	10786.56	3.1
V	51	72	He	387234.14	0.2
Cr	52	45	He	497124.74	0.3
Mn	55	45	He	278321.13	0.1
Fe	56	45	He	8922867.67	0.0
Co	59	45	He	867892.10	0.2
Ni	60	45	He	232660.17	0.6
Cu	63	72	He	643464.83	0.2
Zn	66	72	He	106978.05	0.8
As	75	72	He	60839.72	0.6
Se	78	45	He	5316.47	3.5
Se	78	115	H2	2399.36	1.4
Sr	88	72	NoGas	5262437.42	0.6
Mo	95	72	NoGas	973956.65	1.7
Ag	107	115	NoGas	1411425.13	2.3
Cd	111	115	He	196143.82	0.5
Sn	118	115	He	387570.93	0.4
Sb	121	72	NoGas	2155302.36	2.4
Ba	137	165	NoGas	888477.07	1.7
Tl	205	165	NoGas	6662352.61	2.3
[Pb]	206	165	NoGas	2137994.71	1.9
[Pb]	207	165	NoGas	1844410.86	1.1
Pb	208	165	NoGas	8468114.98	2.2

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4291678.48	0.6	4573424.72	93.84	70	120	
Sc	45	He	157937.89	1.1	171064.79	92.33	70	120	
Sc	45	H2	50142.52	0.9	56451.28	88.82	70	120	
Ge	72	NoGas	1497978.15	1.7	1565899.56	95.66	70	120	
Ge	72	He	168946.82	0.9	181333.12	93.17	70	120	
Ge	72	H2	4549.94	1.1	5004.06	90.92	70	120	
In	115	NoGas	12269390.29	1.9	12777489.31	96.02	70	120	
In	115	He	1958750.07	1.5	2095093.18	93.49	70	120	
In	115	H2	710881 64	1.0	794505.95	89.47	70	120	
Tb	159	NoGas	19184992.22	1.1	19237704.71	99.73	70	120	
Tb	159	He	7010936.83	0.5	7285881.67	96.23	70	120	
Tb	159	H2	4001289.92	1.3	4258924.58	93.95	70	120	
Ho	165	NoGas	18502856.39	1.4	18570542.22	99.64	70	120	
Ho	165	He	7197769.50	0.7	7458349.67	96.51	70	120	
Ho	165	H2	4178748.33	1.2	4471257	93.46	70	120	

Calibration Standard Report

Sample Name	Standard 4 03/08/2021
File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 12:09:22 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	45	NoGas	786987.96	2.8
B	11	45	NoGas	747948.45	4.0
Na	23	45	He	3262263.50	0.4
Mg	24	45	He	3356006.17	1.0
Al	27	45	He	516374.28	0.9
P	31	45	He	7764.34	1.5
K	39	45	He	1010832.29	0.7
Ca	40	45	H2	1464471.25	1.7
Ca	44	45	He	157749.44	0.5
Ti	47	45	He	19892.19	0.9
V	51	72	He	720758.02	0.7
Cr	52	45	He	937205.60	1.2
Mn	55	45	He	528599.19	1.3
Fe	56	45	He	16665530.00	0.2
Co	59	45	He	1597960.54	1.2
Ni	60	45	He	434902.73	0.9
Cu	63	72	He	1195303.66	0.6
Zn	66	72	He	200405.20	1.1
As	75	72	He	115284.75	1.4
Se	78	45	He	9950.10	1.5
Se	78	115	H2	4572.85	3.6
Sr	88	72	NoGas	9703377.77	3.1
Mo	95	72	NoGas	1739163.25	2.7
Ag	107	115	NoGas	2511383.29	2.8
Cd	111	115	He	374260.25	1.2
Sn	118	115	He	741299.54	1.2
Sb	121	72	NoGas	3936579.84	4.5
Ba	137	165	NoGas	1579705.19	3.6
Tl	205	165	NoGas	12473749.81	2.2
[Pb]	206	165	NoGas	3937779.63	2.0
[Pb]	207	165	NoGas	3421718.07	2.8
Pb	208	165	NoGas	15784545.49	2.5

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4022387.02	2.2	4573424.72	87.95	70	120	
Sc	45	He	149726.53	1.0	171064.79	87.53	70	120	
Sc	45	H2	46737.75	1.8	56451.28	82.79	70	120	
Ge	72	NoGas	1405882.32	2.7	1565899.56	89.78	70	120	
Ge	72	He	159428.15	0.7	181333.12	87.92	70	120	
Ge	72	H2	4087.16	2.1	5004.06	81.68	70	120	
In	115	NoGas	11558881.26	3.0	12777489.31	90.46	70	120	
In	115	He	1883756.26	0.9	2095093.18	89.91	70	120	
In	115	H2	682024.21	1.8	794505.95	85.84	70	120	
Tb	159	NoGas	18316414.31	3.3	19237704.71	95.21	70	120	
Tb	159	He	6874382.67	0.8	7285881.67	94.35	70	120	
Tb	159	H2	3884185.58	2.4	4258924.58	91.2	70	120	
Ho	165	NoGas	17850898.07	3.2	18570542.22	96.12	70	120	
Ho	165	He	7021012.17	0.8	7458349.67	94.14	70	120	
Ho	165	H2	4091737.08	0.8	4471257	91.51	70	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV 03/08/2021
File Name	013_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 12:19:52 PM
Sample Type	ICV
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Be	9	45	NoGas	49.525	ug/l	2.3	394555.93	50	99.05	89.6	110.4	
B	11	45	NoGas	52.422	ug/l	3.0	460348.95	50	104.84	89.6	110.4	
Na	23	45	He	1221.728	ug/l	1.9	1677223.92	1250	97.74	89.6	110.4	
Mg	24	45	He	1238.738	ug/l	2.0	857298.87	1250	99.1	89.6	110.4	
Al	27	45	He	1203.678	ug/l	2.6	320779.87	1250	96.29	89.6	110.4	
P	31	45	He	242.988	ug/l	4.7	4089.82	250	97.2	89.6	110.4	
K	39	45	He	1216.051	ug/l	0.4	637545.31	1250	97.28	89.6	110.4	
Ca	40	45	H2	1189.321	ug/l	1.4	357935.63	1250	95.15	89.6	110.4	
Ca	44	45	He	1292.039	ug/l	3.0	42007.77	1250	103.36	89.6	110.4	
Ti	47	45	He	48.738	ug/l	1.0	10038.80	50	97.48	89.6	110.4	
V	51	72	He	48.026	ug/l	2.1	359836.69	50	96.05	89.6	110.4	
Cr	52	45	He	48.750	ug/l	1.6	470916.73	50	97.5	89.6	110.4	
Mn	55	45	He	48.321	ug/l	2.1	262816.63	50	96.64	89.6	110.4	
Fe	56	45	He	1198.230	ug/l	1.8	10309498.00	1250	95.86	89.6	110.4	
Co	59	45	He	49.628	ug/l	1.5	821105.06	50	99.26	89.6	110.4	
Ni	60	45	He	48.702	ug/l	1.5	218656.95	50	97.4	89.6	110.4	
Cu	63	72	He	49.320	ug/l	1.8	609847.94	50	98.64	89.6	110.4	
Zn	66	72	He	49.029	ug/l	2.2	101666.54	50	98.06	89.6	110.4	
As	75	72	He	49.313	ug/l	1.3	58576.00	50	98.63	89.6	110.4	
Se	78	45	He	49.265	ug/l	2.7	5065.73	50	98.53	89.6	110.4	
Se	78	115	H2	50.127	ug/l	2.6	2307.08	50	100.25	89.6	110.4	
Sr	88	72	NoGas	49.099	ug/l	3.0	4832512.85	50	98.2	89.6	110.4	
Mo	95	72	NoGas	48.864	ug/l	2.9	867848.92	50	97.73	89.6	110.4	
Ag	107	115	NoGas	25.001	ug/l	1.4	1279359.54	25	100	89.6	110.4	
Cd	111	115	He	48.935	ug/l	1.3	186854.66	50	97.87	89.6	110.4	
Sn	118	115	He	24.203	ug/l	1.4	183057.91	25	96.81	89.6	110.4	
Sb	121	72	NoGas	49.142	ug/l	2.0	1966808.98	50	98.28	89.6	110.4	
Ba	137	165	NoGas	50.294	ug/l	0.4	805671.42	50	100.59	89.6	110.4	
Tl	205	165	NoGas	48.790	ug/l	1.1	6107021.37	50	97.58	89.6	110.4	
Pb	208	165	NoGas	49.700	ug/l	0.7	7878351.39	50	99.4	89.6	110.4	

QC ISTD Table

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4046075.77	0.6	4573424.72	88.47	70	120	
Sc	45	He	154104.94	0.6	171064.79	90.09	70	120	
Sc	45	H2	48330.39	2.3	56451.28	85.61	70	120	
Ge	72	NoGas	1421157.27	1.1	1565899.56	90.76	70	120	
Ge	72	He	164347.57	0.2	181333.12	90.63	70	120	
Ge	72	H2	4141.17	2.6	5004.06	82.76	70	120	
In	115	NoGas	11637078.71	1.1	12777489.31	91.07	70	120	
In	115	He	1918750 60	0.7	2095093.18	91.58	70	120	
In	115	H2	685298.42	1.5	794505.95	86.25	70	120	
Tb	159	NoGas	18386479.31	1.4	19237704.71	95.58	70	120	
Tb	159	He	7027105.33	1.3	7285881.67	96.45	70	120	
Tb	159	H2	3892370.50	0.9	4258924.58	91.39	70	120	
Ho	165	NoGas	17796969.32	1.8	18570542.22	95.83	70	120	
Ho	165	He	7188430.33	1.2	7458349.67	96.38	70	120	
Ho	165	H2	4109014.75	1.4	4471257	91.9	70	120	

Initial Calibration Blank (ICB) Report

Sample Name	ICB 03/08/2021
File Name	014_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 12:30:16 PM
Sample Type	ICB
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Be	9	45	NoGas	0.011	ug/l	53.9	96.67	0.1	
B	11	45	NoGas	1.385	ug/l	30.2	148652.84	8	
Na	23	45	He	1.648	ug/l	57.1	68917.30	50	
Mg	24	45	He	0.050	ug/l	43.3	132.00	20	
Al	27	45	He	0.166	ug/l	17.0	951.36	10	
P	31	45	He	-0.982	ug/l	N/A	314.01	10	
K	39	45	He	0.986	ug/l	40.1	13064.02	40	
Ca	40	45	H2	0.179	ug/l	54.9	230.67	150	
Ca	44	45	He	0.165	ug/l	183.2	31.33	150	
Ti	47	45	He	-0.006	ug/l	N/A	8.67	0.5	
V	51	72	He	0.359	ug/l	2.8	7444.23	0.4	
Cr	52	45	He	0.031	ug/l	23.9	624.01	0.2	
Mn	55	45	He	0.000	ug/l	491.5	68.67	0.3	
Fe	56	45	He	0.384	ug/l	73.7	8214.56	30	
Co	59	45	He	0.001	ug/l	60.6	132.00	0.4	
Ni	60	45	He	0.002	ug/l	408.3	93.33	0.4	
Cu	63	72	He	-0.010	ug/l	N/A	301.34	0.4	
Zn	66	72	He	-0.071	ug/l	N/A	404.01	15	
As	75	72	He	0.015	ug/l	22.6	60.00	0.2	
Se	78	45	He	-0.031	ug/l	N/A	13.67	0.4	
Se	78	115	H2	0.019	ug/l	88.3	2.00	0.4	
Sr	88	72	NoGas	0.003	ug/l	15.5	1093.42	0.1	
Mo	95	72	NoGas	0.126	ug/l	11.7	2553.62	0.3	
Ag	107	115	NoGas	0.011	ug/l	23.9	676.70	0.1	
Cd	111	115	He	0.001	ug/l	58.7	4.00	0.1	
Sn	118	115	He	0.008	ug/l	26.1	200.67	0.1	
Sb	121	72	NoGas	0.049	ug/l	4.3	4300.68	0.5	
Ba	137	165	NoGas	0.005	ug/l	21.8	193.34	0.4	
Tl	205	165	NoGas	0.038	ug/l	7.0	5591.20	0.2	
Pb	208	165	NoGas	0.013	ug/l	4.0	3066.92	0.4	

QC ISTD Table

Initial Calibration Blank (ICB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4143477.02	0.9	4573424.72	90.6	70	120	
Sc	45	He	157823.11	0.9	171064.79	92.26	70	120	
Sc	45	H2	50485.43	0.7	56451.28	89.43	70	120	
Ge	72	NoGas	1459292.58	2.4	1565899.56	93.19	70	120	
Ge	72	He	165956.72	0.8	181333.12	91.52	70	120	
Ge	72	H2	4570.60	3.4	5004.06	91.34	70	120	
In	115	NoGas	12043696.31	1.1	12777489.31	94.26	70	120	
In	115	He	1960524.43	0.8	2095093.18	93.58	70	120	
In	115	H2	719206.63	2.2	794505.95	90.52	70	120	
Tb	159	NoGas	18779908.05	2.1	19237704.71	97.62	70	120	
Tb	159	He	7004245.83	0.8	7285881.67	96.13	70	120	
Tb	159	H2	4035937.58	1.1	4258924.58	94.76	70	120	
Ho	165	NoGas	18180115.15	1.7	18570542.22	97.9	70	120	
Ho	165	He	7201573.17	1.2	7458349.67	96.56	70	120	
Ho	165	H2	4316295.83	2.0	4471257	96.53	70	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV 210308
File Name	038_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 4:39:39 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Be	9	45	NoGas	48.374	ug/l	1.4	357564.44	50	96.75	89.6	110.4	
B	11	45	NoGas	49.154	ug/l	1.7	408467.73	50	98.31	89.6	110.4	
Na	23	45	He	1232.973	ug/l	2.6	1491424.29	1250	98.64	89.6	110.4	
Mg	24	45	He	2444.654	ug/l	1.1	1491016.63	2500	97.79	89.6	110.4	
Al	27	45	He	963.594	ug/l	3.2	226523.45	1000	96.36	89.6	110.4	
P	31	45	He	224.551	ug/l	5.5	3352.32	250	89.82	89.6	110.4	
K	39	45	He	967.005	ug/l	1.3	448997.79	1000	96.7	89.6	110.4	
Ca	40	45	H2	2365.814	ug/l	1.2	677502.65	2500	94.63	89.6	110.4	
Ca	44	45	He	2407.278	ug/l	1.5	68960.86	2500	96.29	89.6	110.4	
Ti	47	45	He	47.633	ug/l	3.1	8648.76	50	95.27	89.6	110.4	
V	51	72	He	46.665	ug/l	1.3	314925.45	50	93.33	89.6	110.4	
Cr	52	45	He	48.188	ug/l	2.0	410259.18	50	96.38	89.6	110.4	
Mn	55	45	He	48.454	ug/l	2.3	232279.38	50	96.91	89.6	110.4	
Fe	56	45	He	972.224	ug/l	2.4	7373623.33	1000	97.22	89.6	110.4	
Co	59	45	He	49.539	ug/l	1.9	722387.00	50	99.08	89.6	110.4	
Ni	60	45	He	48.689	ug/l	2.7	192677.96	50	97.38	89.6	110.4	
Cu	63	72	He	48.045	ug/l	1.1	534880.69	50	96.09	89.6	110.4	
Zn	66	72	He	48.308	ug/l	0.9	90193.36	50	96.62	89.6	110.4	
As	75	72	He	47.744	ug/l	1.5	51063.41	50	95.49	89.6	110.4	
Se	78	45	He	48.605	ug/l	2.0	4403.55	50	97.21	89.6	110.4	
Se	78	115	H2	49.225	ug/l	1.2	2262.68	50	98.45	89.6	110.4	
Sr	88	72	NoGas	48.959	ug/l	0.2	4493711.50	50	97.92	89.6	110.4	
Mo	95	72	NoGas	49.269	ug/l	1.6	815725.64	50	98.54	89.6	110.4	
Ag	107	115	NoGas	24.097	ug/l	2.4	1195574.02	25	96.39	89.6	110.4	
Cd	111	115	He	48.145	ug/l	2.7	169957.96	50	96.29	89.6	110.4	
Sn	118	115	He	47.960	ug/l	3.3	335260.64	50	95.92	89.6	110.4	
Sb	121	72	NoGas	50.933	ug/l	0.9	1900405.86	50	101.87	89.6	110.4	
Ba	137	165	NoGas	48.229	ug/l	0.8	765935.98	50	96.46	89.6	110.4	
Tl	205	165	NoGas	47.473	ug/l	1.5	5891462.83	50	94.95	89.6	110.4	
Pb	208	165	NoGas	49.189	ug/l	0.5	7729776.76	50	98.38	89.6	110.4	

QC ISTD Table

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	3754875.26	3.0	4573424.72	82.1	70	120	
Sc	45	He	135802.12	1.3	171064.79	79.39	70	120	
Sc	45	H2	45998.47	2.3	56451.28	81.48	70	120	
Ge	72	NoGas	1325096.47	4.5	1565899.56	84.62	70	120	
Ge	72	He	147947.24	1.8	181333.12	81.59	70	120	
Ge	72	H2	4311.88	1.6	5004.06	86.17	70	120	
In	115	NoGas	11283119.87	3.0	12777489.31	88.3	70	120	
In	115	He	1773877.95	1.8	2095093.18	84.67	70	120	
In	115	H2	684580.68	2.0	794505.95	86.16	70	120	
Tb	159	NoGas	18021452.65	4.2	19237704.71	93.68	70	120	
Tb	159	He	6569252.67	1.9	7285881.67	90.16	70	120	
Tb	159	H2	3952316.17	1.4	4258924.58	92.8	70	120	
Ho	165	NoGas	17642517.24	3.1	18570542.22	95	70	120	
Ho	165	He	6835567.17	2.2	7458349.67	91.65	70	120	
Ho	165	H2	4209830.67	1.5	4471257	94.15	70	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB 210308
File Name	039_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 4:50:02 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Be	9	45	NoGas	0.007	ug/l	59.0	63.33	0.1	
B	11	45	NoGas	1.627	ug/l	1.4	141532.99	8	
Na	23	45	He	-0.028	ug/l	N/A	60810.95	50	
Mg	24	45	He	0.131	ug/l	40.4	172.67	20	
Al	27	45	He	0.234	ug/l	137.8	884.70	10	
P	31	45	He	-6.623	ug/l	N/A	204.67	10	
K	39	45	He	-0.143	ug/l	N/A	11376.23	40	
Ca	40	45	H2	0.460	ug/l	24.3	304.00	150	
Ca	44	45	He	0.849	ug/l	4.6	49.33	150	
Tl	47	45	He	0.009	ug/l	249.5	10.67	0.5	
V	51	72	He	0.083	ug/l	12.2	4989.39	0.4	
Cr	52	45	He	0.027	ug/l	7.9	528.68	0.2	
Mn	55	45	He	0.007	ug/l	49.6	95.33	0.3	
Fe	56	45	He	0.348	ug/l	5.7	7215.47	30	
Co	59	45	He	-0.001	ug/l	N/A	97.33	0.4	
Ni	60	45	He	0.000	ug/l	2877.3	77.33	0.4	
Cu	63	72	He	-0.010	ug/l	N/A	274.67	0.4	
Zn	66	72	He	-0.078	ug/l	N/A	361.34	15	
As	75	72	He	0.007	ug/l	114.3	46.33	0.2	
Se	78	45	He	0.013	ug/l	324.1	16.67	0.4	
Se	78	115	H2	0.015	ug/l	215.2	1.73	0.4	
Sr	88	72	NoGas	0.006	ug/l	43.2	1256.76	0.1	
Mo	95	72	NoGas	0.111	ug/l	4.3	2136.88	0.3	
Ag	107	115	NoGas	0.002	ug/l	34.4	180.01	0.1	
Cd	111	115	He	0.000	ug/l	143.2	2.00	0.1	
Sn	118	115	He	0.005	ug/l	28.5	171.33	0.1	
Sb	121	72	NoGas	0.064	ug/l	8.9	4610.81	0.5	
Ba	137	165	NoGas	0.026	ug/l	22.9	520.03	0.4	
Tl	205	165	NoGas	0.099	ug/l	2.9	12992.40	0.2	
Pb	208	165	NoGas	0.006	ug/l	14.8	1813.45	0.4	

QC ISTD Table

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	3905044.53	3.9	4573424.72	85.39	70	120	
Sc	45	He	143976.19	0.3	171064.79	84.16	70	120	
Sc	45	H2	48063.68	2.7	56451.28	85.14	70	120	
Ge	72	NoGas	1373894.67	3.8	1565899.56	87.74	70	120	
Ge	72	He	153883.67	0.9	181333.12	84.86	70	120	
Ge	72	H2	4518.59	4.3	5004.06	90.3	70	120	
In	115	NoGas	11666059.52	3.9	12777489.31	91.3	70	120	
In	115	He	1893442.03	1.6	2095093.18	90.38	70	120	
In	115	H2	711408.58	4.2	794505.95	89.54	70	120	
Tb	159	NoGas	18241498.06	3.5	19237704.71	94.82	70	120	
Tb	159	He	6783651.17	0.5	7285881.67	93.11	70	120	
Tb	159	H2	4059748.50	4.5	4258924.58	95.32	70	120	
Ho	165	NoGas	17651813.90	3.9	18570542.22	95.05	70	120	
Ho	165	He	7011575.00	0.7	7458349.67	94.01	70	120	
Ho	165	H2	4303197.50	4.5	4471257	96.24	70	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV 210308
File Name	056_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 7:46:28 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Be	9	45	NoGas	47.926	ug/l	2.9	415710.48	50	95.85	89.6	110.4	
B	11	45	NoGas	79.058	ug/l	2.8	680371.29	50	158.12	89.6	110.4	>+/- 10%
Na	23	45	He	1216.762	ug/l	0.7	1745798.91	1250	97.34	89.6	110.4	
Mg	24	45	He	2424.764	ug/l	1.7	1753395.12	2500	96.99	89.6	110.4	
Al	27	45	He	978.608	ug/l	1.8	272700.70	1000	97.86	89.6	110.4	
P	31	45	He	230.815	ug/l	1.3	4077.15	250	92.33	89.6	110.4	
K	39	45	He	973.516	ug/l	1.0	535876.41	1000	97.35	89.6	110.4	
Ca	40	45	H2	2382.363	ug/l	0.3	907845.10	2500	95.29	89.6	110.4	
Ca	44	45	He	2425.658	ug/l	1.7	82388.78	2500	97.03	89.6	110.4	
Ti	47	45	He	47.327	ug/l	0.8	10186.88	50	94.65	89.6	110.4	
V	51	72	He	47.328	ug/l	1.1	365140.27	50	94.66	89.6	110.4	
Cr	52	45	He	46.403	ug/l	2.1	468394.05	50	92.81	89.6	110.4	
Mn	55	45	He	47.513	ug/l	2.1	270031.60	50	95.03	89.6	110.4	
Fe	56	45	He	935.557	ug/l	1.4	8412201.67	1000	93.56	89.6	110.4	
Co	59	45	He	47.080	ug/l	1.7	813948.90	50	94.16	89.6	110.4	
Ni	60	45	He	46.013	ug/l	2.0	215867.56	50	92.03	89.6	110.4	
Cu	63	72	He	47.036	ug/l	1.4	598783.10	50	94.07	89.6	110.4	
Zn	66	72	He	47.632	ug/l	1.2	101698.98	50	95.26	89.6	110.4	
As	75	72	He	47.395	ug/l	0.5	57958.95	50	94.79	89.6	110.4	
Se	78	45	He	49.086	ug/l	2.8	5273.45	50	98.17	89.6	110.4	
Se	78	115	H2	52.772	ug/l	1.6	2966.11	50	105.54	89.6	110.4	
Sr	88	72	NoGas	46.485	ug/l	1.1	4844460.24	50	92.97	89.6	110.4	
Mo	95	72	NoGas	47.343	ug/l	1.7	890288.43	50	94.69	89.6	110.4	
Ag	107	115	NoGas	23.074	ug/l	4.8	1280264.77	25	92.3	89.6	110.4	
Cd	111	115	He	47.167	ug/l	3.0	187799.28	50	94.33	89.6	110.4	
Sn	118	115	He	47.765	ug/l	3.9	376525.03	50	95.53	89.6	110.4	
Sb	121	72	NoGas	46.523	ug/l	2.3	1971464.29	50	93.05	89.6	110.4	
Ba	137	165	NoGas	47.547	ug/l	2.8	807468.63	50	95.09	89.6	110.4	
Tl	205	165	NoGas	45.239	ug/l	3.8	6002341.58	50	90.48	89.6	110.4	
Pb	208	165	NoGas	46.606	ug/l	3.1	7832571.70	50	93.21	89.6	110.4	

QC ISTD Table

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4407053.16	2.2	4573424.72	96.36	70	120	
Sc	45	He	161032.80	0.7	171064.79	94.14	70	120	
Sc	45	H2	61198.14	1.2	56451.28	108.41	70	120	
Ge	72	NoGas	1504456.64	0.8	1565899.56	96.08	70	120	
Ge	72	He	169188.28	0.4	181333.12	93.3	70	120	
Ge	72	H2	5987.04	4.3	5004.06	119.64	70	120	
In	115	NoGas	12630553.90	2.9	12777489.31	98.85	70	120	
In	115	He	2001447.61	1.8	2095093.18	95.53	70	120	
In	115	H2	837108.96	0.4	794505.95	105 36	70	120	
Tb	159	NoGas	19450227.21	1.6	19237704.71	101.1	70	120	
Tb	159	He	7153614.83	1.1	7285881.67	98.18	70	120	
Tb	159	H2	4493434.83	1.0	4258924.58	105.51	70	120	
Ho	165	NoGas	18873123.05	2.3	18570542.22	101.63	70	120	
Ho	165	He	7434327.83	0.1	7458349.67	99.68	70	120	
Ho	165	H2	4753120.83	1.0	4471257	106.3	70	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB 210308
File Name	057_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 8:14:57 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	—
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Be	9	45	NoGas	0.002	ug/l	42.7	23.33	0.1	
B	11	45	NoGas	29.171	ug/l	6.1	343943.22	8	>LOD
Na	23	45	He	3.698	ug/l	42.9	77015.28	50	
Mg	24	45	He	0.295	ug/l	19.7	328.01	20	
Al	27	45	He	0.598	ug/l	43.6	1149.38	10	
P	31	45	He	-9.449	ug/l	N/A	192.67	10	
K	39	45	He	-1.239	ug/l	N/A	12778.45	40	
Ca	40	45	H2	0.310	ug/l	15.4	354.01	150	
Ca	44	45	He	0.688	ug/l	79.2	52.00	150	
Ti	47	45	He	-0.003	ug/l	N/A	10.00	0.5	
V	51	72	He	0.766	ug/l	3.7	11107.44	0.4	>LOD
Cr	52	45	He	0.036	ug/l	23.6	719.35	0.2	
Mn	55	45	He	0.011	ug/l	24.6	134.67	0.3	
Fe	56	45	He	0.325	ug/l	5.7	8279.93	30	
Co	59	45	He	0.000	ug/l	N/A	124.67	0.4	
Ni	60	45	He	0.000	ug/l	N/A	89.33	0.4	
Cu	63	72	He	-0.017	ug/l	N/A	218.00	0.4	
Zn	66	72	He	-0.005	ug/l	N/A	571.35	15	
As	75	72	He	0.017	ug/l	27.0	66.00	0.2	
Se	78	45	He	-0.005	ug/l	N/A	17.67	0.4	
Se	78	115	H2	0.002	ug/l	526.7	1.47	0.4	
Sr	88	72	NoGas	0.007	ug/l	3.6	1503.47	0.1	
Mo	95	72	NoGas	0.792	ug/l	4.5	15160.43	0.3	>LOD
Ag	107	115	NoGas	0.001	ug/l	66.5	150.01	0.1	
Cd	111	115	He	0.001	ug/l	104.3	4.67	0.1	
Sn	118	115	He	0.005	ug/l	20.1	194.00	0.1	
Sb	121	72	NoGas	0.042	ug/l	15.7	4130.65	0.5	
Ba	137	165	NoGas	0.004	ug/l	76.8	170.01	0.4	
Tl	205	165	NoGas	0.141	ug/l	3.5	19115.20	0.2	
Pb	208	165	NoGas	0.002	ug/l	19.6	1360.09	0.4	

QC ISTD Table

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4396583.48	3.4	4573424.72	96.13	70	120	
Sc	45	He	169630.66	2.8	171064.79	99.16	70	120	
Sc	45	H2	65788.40	2.2	56451.28	116.54	70	120	
Ge	72	NoGas	1506111.85	4.0	1565899.56	96.18	70	120	
Ge	72	He	175936.55	2.1	181333.12	97.02	70	120	
Ge	72	H2	6497.21	1.1	5004.06	129.84	70	120	ISTD Failed
In	115	NoGas	12555974.62	3.9	12777489.31	98.27	70	120	
In	115	He	2147237.94	1.1	2095093.18	102.49	70	120	
In	115	H2	895317.34	1.4	794505.95	112.69	70	120	
Tb	159	NoGas	19179881.80	3.8	19237704.71	99.7	70	120	
Tb	159	He	7560604.67	1.6	7285881.67	103.77	70	120	
Tb	159	H2	4707243.67	1.5	4258924.58	110.53	70	120	
Ho	165	NoGas	18482432.22	4.2	18570542.22	99.53	70	120	
Ho	165	He	7856031.50	2.0	7458349.67	105.33	70	120	
Ho	165	H2	4962520.33	0.7	4471257	110.99	70	120	

METALS

Raw Data

Sample Report

Sample Name	BA27502W09 DF2
File Name	049SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 6:33:58 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	Red Hill
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	0.002	ug/l	133.8	30.00	10000	
B	11	45	NoGas	111.829	ug/l	3.9	946350.25	10000	
Na	23	45	He	47442.794	ug/l	1.5	62968584.00	1000000	
Mg	24	45	He	19693.408	ug/l	0.9	13694191.67	1000000	
Al	27	45	He	4.713	ug/l	5.5	2147.47	1000000	
P	31	45	He	53.739	ug/l	2.5	1160.72	500000	
K	39	45	He	2828.461	ug/l	1.0	1473717.96	500000	
Ca	40	45	H2	20460.003	ug/l	0.5	7471344.83	500000	
Ca	44	45	He	20186.189	ug/l	1.4	659164.54	500000	
Ti	47	45	He	0.111	ug/l	4.1	32.67	10000	
V	51	72	He	16.160	ug/l	1.7	122347.55	10000	
Cr	52	45	He	2.073	ug/l	0.9	20414.76	10000	
Mn	55	45	He	0.101	ug/l	10.8	618.02	50000	
Fe	56	45	He	3.316	ug/l	1.8	33408.72	1000000	
Co	59	45	He	0.004	ug/l	46.1	172.67	10000	
Ni	60	45	He	0.132	ug/l	9.7	676.02	10000	
Cu	63	72	He	0.140	ug/l	0.6	2120.61	10000	
Zn	66	72	He	0.071	ug/l	14.1	682.02	50000	
As	75	72	He	0.075	ug/l	6.1	129.00	2000	
Se	78	45	He	0.334	ug/l	26.8	51.00	10000	
Se	78	115	H2	0.295	ug/l	6.7	16.40	10000	
Sr	88	72	NoGas	152.607	ug/l	3.1	15368642.27	50000	
Mo	95	72	NoGas	2.210	ug/l	4.7	40393.97	10000	
Ag	107	115	NoGas	0.004	ug/l	36.2	286.68	5000	
Cd	111	115	He	0.002	ug/l	123.1	8.00	10000	
Sn	118	115	He	0.023	ug/l	14.0	296.67	10000	
Sb	121	72	NoGas	0.006	ug/l	45.9	2496.95	10000	
Ba	137	165	NoGas	7.865	ug/l	3.7	130783.84	50000	
Tl	205	165	NoGas	0.038	ug/l	12.8	5747.93	5000	
Pb	208	165	NoGas	0.093	ug/l	5.8	16327.27	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4630132.75	3.4	4573424.72	101.24	70	120	
Sc	45	He	154845.30	0.7	171064.79	90.52	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	58655.96	0.7	56451.28	103.91	70	120	
Ge	72	NoGas	1454204.56	2.3	1565899.56	92.87	70	120	
Ge	72	He	161870.87	0.5	181333.12	89.27	70	120	
Ge	72	H2	5630.25	2.3	5004.06	112.51	70	120	
In	115	NoGas	11973285.94	2.9	12777489.31	93.71	70	120	
In	115	He	1861850.12	1.5	2095093.18	88.87	70	120	
In	115	H2	770000.91	0.7	794505.95	96.92	70	120	
Tb	159	NoGas	19127302.63	3.0	19237704.71	99.43	70	120	
Tb	159	He	6826460.67	0.9	7285881.67	93.69	70	120	
Tb	159	H2	4195240.08	0.6	4258924.58	98.5	70	120	
Ho	165	NoGas	18475470.56	3.5	18570542.22	99.49	70	120	
Ho	165	He	7159085.67	0.2	7458349.67	95.99	70	120	
Ho	165	H2	4456961.00	0.9	4471257	99.68	70	120	

Sample Report

Sample Name	BA27504W09 DF2
File Name	050SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 6:44:23 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	Red Hill
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	0.001	ug/l	309.2	16.67	10000	
B	11	45	NoGas	92.058	ug/l	3.2	779893.50	10000	
Na	23	45	He	49995.939	ug/l	1.1	66300901.33	1000000	
Mg	24	45	He	20306.017	ug/l	1.9	14108210.33	1000000	
Al	27	45	He	4.702	ug/l	8.9	2143.47	1000000	
P	31	45	He	56.184	ug/l	1.8	1198.05	500000	
K	39	45	He	2866.865	ug/l	0.8	1492371.42	500000	
Ca	40	45	H2	21636.414	ug/l	0.5	7947926.00	500000	
Ca	44	45	He	20909.454	ug/l	1.2	682258.89	500000	
Ti	47	45	He	0.111	ug/l	25.5	32.67	10000	
V	51	72	He	16.740	ug/l	2.0	125815.81	10000	
Cr	52	45	He	2.146	ug/l	1.5	21111.49	10000	
Mn	55	45	He	0.168	ug/l	4.3	982.04	50000	
Fe	56	45	He	9.750	ug/l	2.0	88945.11	1000000	
Co	59	45	He	0.005	ug/l	18.3	202.67	10000	
Ni	60	45	He	2.527	ug/l	0.5	11471.00	10000	
Cu	63	72	He	32.571	ug/l	2.2	394468.22	10000	
Zn	66	72	He	18.383	ug/l	0.7	37658.90	50000	
As	75	72	He	0.087	ug/l	23.6	142.00	2000	
Se	78	45	He	0.324	ug/l	30.6	50.00	10000	
Se	78	115	H2	0.261	ug/l	4.6	14.80	10000	
Sr	88	72	NoGas	156.691	ug/l	1.0	15483108.10	50000	
Mo	95	72	NoGas	1.227	ug/l	4.4	22131.40	10000	
Ag	107	115	NoGas	0.010	ug/l	18.8	576.70	5000	
Cd	111	115	He	0.005	ug/l	6.0	19.33	10000	
Sn	118	115	He	0.746	ug/l	5.6	5599.63	10000	
Sb	121	72	NoGas	0.037	ug/l	4.9	3723.91	10000	
Ba	137	165	NoGas	8.194	ug/l	1.5	133441.27	50000	
Tl	205	165	NoGas	0.031	ug/l	3.7	4660.90	5000	
Pb	208	165	NoGas	2.132	ug/l	2.7	344286.14	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4475118.68	2.0	4573424.72	97.85	70	120	
Sc	45	He	154724.44	0.9	171064.79	90.45	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	59006.88	0.6	56451.28	104.53	70	120	
Ge	72	NoGas	1426447.63	1.7	1565899.56	91.09	70	120	
Ge	72	He	160920.11	0.4	181333.12	88.74	70	120	
Ge	72	H2	5772.96	4.8	5004.06	115.37	70	120	
In	115	NoGas	11566072.53	2.3	12777489.31	90.52	70	120	
In	115	He	1861127.36	0.5	2095093.18	88.83	70	120	
In	115	H2	778394.99	0.7	794505.95	97.97	70	120	
Tb	159	NoGas	18536018.89	2.0	19237704.71	96.35	70	120	
Tb	159	He	6798761.83	1.2	7285881.67	93.31	70	120	
Tb	159	H2	4224880.00	0.2	4258924.58	99.2	70	120	
Ho	165	NoGas	18084877.23	2.7	18570542.22	97.38	70	120	
Ho	165	He	7063939.00	0.7	7458349.67	94.71	70	120	
Ho	165	H2	4517838.50	1.0	4471257	101.04	70	120	

Sample Report

Sample Name	210308A BLK DF2
File Name	040SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 5.00:31 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	Red Hill
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	0.001	ug/l	273.6	16.67	10000	
B	11	45	NoGas	0.633	ug/l	61.3	140689.54	10000	
Na	23	45	He	23.914	ug/l	4.7	90026.10	1000000	
Mg	24	45	He	4.699	ug/l	2.8	3116.28	1000000	
Al	27	45	He	2.583	ug/l	2.3	1463.40	1000000	
P	31	45	He	-4.182	ug/l	N/A	239.33	500000	
K	39	45	He	1.419	ug/l	23.1	12087.35	500000	
Ca	40	45	H2	3.393	ug/l	2.6	1203.38	500000	
Ca	44	45	He	4.798	ug/l	3.1	168.67	500000	
Ti	47	45	He	0.002	ug/l	1687.8	9.33	10000	
V	51	72	He	0.088	ug/l	36.7	5045.40	10000	
Cr	52	45	He	-0.003	ug/l	N/A	255.33	10000	
Mn	55	45	He	0.049	ug/l	8.3	308.67	50000	
Fe	56	45	He	0.477	ug/l	3.4	8227.91	1000000	
Co	59	45	He	-0.001	ug/l	N/A	96.00	10000	
Ni	60	45	He	0.003	ug/l	294.9	87.33	10000	
Cu	63	72	He	0.008	ug/l	34.6	484.01	10000	
Zn	66	72	He	0.004	ug/l	690.5	520.68	50000	
As	75	72	He	-0.002	ug/l	N/A	36.33	2000	
Se	78	45	He	0.055	ug/l	74.4	20.67	10000	
Se	78	115	H2	-0.001	ug/l	N/A	1.07	10000	
Sr	88	72	NoGas	0.007	ug/l	22.6	1420.11	50000	
Mo	95	72	NoGas	0.039	ug/l	46.3	923.40	10000	
Ag	107	115	NoGas	0.001	ug/l	10.0	133.34	5000	
Cd	111	115	He	0.001	ug/l	27.9	4.67	10000	
Sn	118	115	He	0.002	ug/l	125.8	146.00	10000	
Sb	121	72	NoGas	0.019	ug/l	65.0	2930.36	10000	
Ba	137	165	NoGas	0.020	ug/l	10.8	443.36	50000	
Tl	205	165	NoGas	0.055	ug/l	5.0	7885.57	5000	
Pb	208	165	NoGas	0.005	ug/l	11.9	1866.79	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4051722.44	1.7	4573424.72	88.59	70	120	
Sc	45	He	143505.15	0.8	171064.79	83.89	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	48979.33	2.2	56451.28	86.76	70	120	
Ge	72	NoGas	1405385.60	0.9	1565899.56	89.75	70	120	
Ge	72	He	154497.54	1.0	181333.12	85.2	70	120	
Ge	72	H2	4513.93	4.1	5004.06	90.21	70	120	
In	115	NoGas	12101370.77	3.0	12777489.31	94.71	70	120	
In	115	He	1883617.57	0.6	2095093.18	89.91	70	120	
In	115	H2	721117.11	2.5	794505.95	90.76	70	120	
Tb	159	NoGas	19026941.80	2.1	19237704.71	98.9	70	120	
Tb	159	He	6852658.17	1.2	7285881.67	94.05	70	120	
Tb	159	H2	4079217.25	3.3	4258924.58	95.78	70	120	
Ho	165	NoGas	18460811.39	2.4	18570542.22	99.41	70	120	
Ho	165	He	7105775.67	1.2	7458349.67	95.27	70	120	
Ho	165	H2	4370864.83	2.9	4471257	97.75	70	120	

Sample Report

Sample Name	210308A LCS DF2
File Name	042SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A b
Acq Time	03/08/21 5:21 34 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	Red Hill
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	19.642	ug/l	0.8	146767.74	10000	
B	11	45	NoGas	101.451	ug/l	1.0	715673.53	10000	
Na	23	45	He	9958.957	ug/l	1.7	12142144.33	1000000	
Mg	24	45	He	9955.604	ug/l	2.0	6334298.83	1000000	
Al	27	45	He	809.079	ug/l	2.2	198523.18	1000000	
P	31	45	He	812.224	ug/l	1.5	11877.85	500000	
K	39	45	He	2044.061	ug/l	1.5	977628.08	500000	
Ca	40	45	H2	10044.601	ug/l	2.8	3030393.83	500000	
Ca	44	45	He	9771.849	ug/l	2.2	291971.76	500000	
Ti	47	45	He	101.410	ug/l	1.7	19195.40	10000	
V	51	72	He	101.355	ug/l	1.6	694852.36	10000	
Cr	52	45	He	99.372	ug/l	2.5	882271.25	10000	
Mn	55	45	He	100.217	ug/l	2.7	501095.37	50000	
Fe	56	45	He	400.674	ug/l	2.6	3172424.00	1000000	
Co	59	45	He	101.172	ug/l	3.4	1538869.83	10000	
Ni	60	45	He	99.393	ug/l	2.9	410201.41	10000	
Cu	63	72	He	99.869	ug/l	1.3	1137347.08	10000	
Zn	66	72	He	195.061	ug/l	1.1	371155.44	50000	
As	75	72	He	102.188	ug/l	1.0	111791.53	2000	
Se	78	45	He	97.772	ug/l	0.8	9228.38	10000	
Se	78	115	H2	100.074	ug/l	2.0	4720.09	10000	
Sr	88	72	NoGas	101.171	ug/l	1.6	9365639.03	50000	
Mo	95	72	NoGas	100.340	ug/l	1.2	1676129.35	10000	
Ag	107	115	NoGas	39.643	ug/l	1.4	1979824.50	5000	
Cd	111	115	He	19.794	ug/l	0.7	72005.92	10000	
Sn	118	115	He	99.049	ug/l	1.5	713318.04	10000	
Sb	121	72	NoGas	100.605	ug/l	0.5	3784813.38	10000	
Ba	137	165	NoGas	98.896	ug/l	0.4	1574035.03	50000	
Tl	205	165	NoGas	92.994	ug/l	1.4	11566361.49	5000	
Pb	208	165	NoGas	98.536	ug/l	0.6	15519872.58	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	3794296.51	2.3	4573424.72	82.96	70	120	
Sc	45	He	141691.24	0.5	171064.79	82.83	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	48480.80	2.4	56451.28	85.88	70	120	
Ge	72	NoGas	1336475.40	1.5	1565899.56	85.35	70	120	
Ge	72	He	151408.17	0.7	181333.12	83.5	70	120	
Ge	72	H2	4551.94	2.3	5004.06	90.96	70	120	
In	115	NoGas	11357823.84	1.1	12777489.31	88.89	70	120	
In	115	He	1827924.27	0.3	2095093.18	87.25	70	120	
In	115	H2	702626.05	0.8	794505.95	88.44	70	120	
Tb	159	NoGas	18218749.31	3.1	19237704.71	94.7	70	120	
Tb	159	He	6661676.50	0.8	7285881.67	91.43	70	120	
Tb	159	H2	4007321.92	1.2	4258924.58	94.09	70	120	
Ho	165	NoGas	17685130.57	2.3	18570542.22	95.23	70	120	
Ho	165	He	6943846.00	0.6	7458349.67	93.1	70	120	
Ho	165	H2	4315615.83	1.2	4471257	96.52	70	120	

Sample Report

Sample Name	210308A LCSD DF2
File Name	044SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 5:42:17 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	Red Hill
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	20.569	ug/l	3.5	150385.64	10000	
B	11	45	NoGas	107.274	ug/l	2.3	733764.08	10000	
Na	23	45	He	9512.942	ug/l	0.6	12120247.00	1000000	
Mg	24	45	He	9407.806	ug/l	0.7	6253653.33	1000000	
Al	27	45	He	766.966	ug/l	0.8	196662.87	1000000	
P	31	45	He	762.080	ug/l	2.3	11663.71	500000	
K	39	45	He	1950.530	ug/l	0.2	975159.71	500000	
Ca	40	45	H2	9980.103	ug/l	10.6	3004244.58	500000	
Ca	44	45	He	9305.414	ug/l	1.2	290496.81	500000	
Ti	47	45	He	95.378	ug/l	1.7	18863.05	10000	
V	51	72	He	96.572	ug/l	1.4	688057.79	10000	
Cr	52	45	He	93.932	ug/l	1.0	871359.56	10000	
Mn	55	45	He	94.519	ug/l	1.1	493794.37	50000	
Fe	56	45	He	380.002	ug/l	1.5	3143931.58	1000000	
Co	59	45	He	95.223	ug/l	1.5	1513271.62	10000	
Ni	60	45	He	93.765	ug/l	1.0	404310.09	10000	
Cu	63	72	He	94.349	ug/l	1.4	1116384.17	10000	
Zn	66	72	He	185.858	ug/l	2.2	367455.16	50000	
As	75	72	He	96.131	ug/l	1.1	109267.18	2000	
Se	78	45	He	94.140	ug/l	1.9	9282.08	10000	
Se	78	115	H2	101.414	ug/l	7.9	4713.29	10000	
Sr	88	72	NoGas	101.426	ug/l	2.8	9210618.61	50000	
Mo	95	72	NoGas	100.951	ug/l	2.3	1654409.25	10000	
Ag	107	115	NoGas	41.191	ug/l	3.9	1962882.47	5000	
Cd	111	115	He	19.069	ug/l	1.6	70699.46	10000	
Sn	118	115	He	94.975	ug/l	2.0	697116.79	10000	
Sb	121	72	NoGas	100.666	ug/l	2.6	3715282.76	10000	
Ba	137	165	NoGas	101.492	ug/l	4.7	1543906.95	50000	
Tl	205	165	NoGas	94.269	ug/l	3.8	11208914.00	5000	
Pb	208	165	NoGas	100.825	ug/l	5.2	15172485.51	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	3718351.72	6.5	4573424.72	81.3	70	120	
Sc	45	He	148021.08	1.0	171064.79	86.53	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	48668.19	9.2	56451.28	86.21	70	120	
Ge	72	NoGas	1312279.30	5.1	1565899.56	83.8	70	120	
Ge	72	He	157316.11	0.3	181333.12	86.76	70	120	
Ge	72	H2	4505.93	7.0	5004.06	90.05	70	120	
In	115	NoGas	10857789.98	7.0	12777489.31	84.98	70	120	
In	115	He	1863024.59	0.6	2095093.18	88.92	70	120	
In	115	H2	695294.49	8.4	794505.95	87.51	70	120	
Tb	159	NoGas	17462984.74	7.2	19237704.71	90.77	70	120	
Tb	159	He	6834405.50	0.6	7285881.67	93.8	70	120	
Tb	159	H2	3910856.50	7.4	4258924.58	91.83	70	120	
Ho	165	NoGas	16938251.00	7.0	18570542.22	91.21	70	120	
Ho	165	He	7043044.17	0.4	7458349.67	94.43	70	120	
Ho	165	H2	4189346.25	8.1	4471257	93.7	70	120	

Sample Report

Sample Name	BA27504W09 MS DF2
File Name	051SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq Time	03/08/21 6:54:48 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	Red Hill
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass
Operator	**Chemist_ Metals**

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	45	NoGas	44.508	ug/l	4.5	386866.37	10000	
B	11	45	NoGas	304.138	ug/l	4.1	2199037.52	10000	
Na	23	45	He	73817.080	ug/l	0.8	95569066.67	1000000	
Mg	24	45	He	43420.651	ug/l	0.6	29462396.67	1000000	
Al	27	45	He	1991.798	ug/l	0.2	519980.89	1000000	
P	31	45	He	2029.978	ug/l	0.2	31187.51	500000	
K	39	45	He	7614.113	ug/l	0.1	3851145.58	500000	
Ca	40	45	H2	45585.772	ug/l	2.6	16575409.33	500000	
Ca	44	45	He	44149.841	ug/l	1.1	1406877.96	500000	
Ti	47	45	He	248.055	ug/l	0.7	50064.98	10000	
V	51	72	He	265.883	ug/l	2.2	1859994.04	10000	
Cr	52	45	He	232.568	ug/l	0.9	2201995.92	10000	
Mn	55	45	He	237.097	ug/l	1.1	1264434.25	50000	
Fe	56	45	He	935.704	ug/l	0.5	7895463.50	1000000	
Co	59	45	He	225.284	ug/l	0.7	3654475.75	10000	
Ni	60	45	He	222.713	ug/l	0.4	980228.77	10000	
Cu	63	72	He	251.559	ug/l	1.8	2934163.17	10000	
Zn	66	72	He	458.859	ug/l	2.0	893715.00	50000	
As	75	72	He	242.466	ug/l	1.9	271678.06	2000	
Se	78	45	He	224.903	ug/l	1.2	22615.49	10000	
Se	78	115	H2	253.465	ug/l	0.6	12740.87	10000	
Sr	88	72	NoGas	404.098	ug/l	2.9	38464079.43	50000	
Mo	95	72	NoGas	240.956	ug/l	2.7	4138603.69	10000	
Ag	107	115	NoGas	90.162	ug/l	3.8	4580968.26	5000	
Cd	111	115	He	48.245	ug/l	0.7	170180.40	10000	
Sn	118	115	He	250.247	ug/l	0.6	1747265.83	10000	
Sb	121	72	NoGas	235.531	ug/l	3.2	9108454.45	10000	
Ba	137	165	NoGas	237.371	ug/l	4.0	3871822.86	50000	
Tl	205	165	NoGas	180.216	ug/l	4.4	22963117.99	5000	
Pb	208	165	NoGas	221.787	ug/l	3.7	35794985.30	50000	

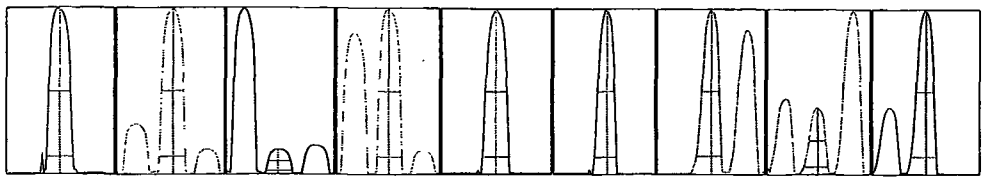
QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	NoGas	4419098.37	3.7	4573424.72	96.63	70	120	
Sc	45	He	151107.96	1.3	171064.79	88.33	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	H2	58423.84	2.1	56451.28	103.49	70	120	
Ge	72	NoGas	1374494.25	1.5	1565899.56	87.78	70	120	
Ge	72	He	155124.49	0.7	181333.12	85.55	70	120	
Ge	72	H2	5663.59	0.1	5004.06	113.18	70	120	
In	115	NoGas	11563490.31	2.8	12777489.31	90.5	70	120	
In	115	He	1772475.03	1.6	2095093.18	84.6	70	120	
In	115	H2	748904.80	1.0	794505.95	94.26	70	120	
Tb	159	NoGas	18448990.98	2.7	19237704.71	95.9	70	120	
Tb	159	He	6607708.00	0.1	7285881.67	90.69	70	120	
Tb	159	H2	4075192.50	1.0	4258924.58	95.69	70	120	
Ho	165	NoGas	18134515.98	3.0	18570542.22	97.65	70	120	
Ho	165	He	6935778.33	0.3	7458349.67	92.99	70	120	
Ho	165	H2	4336173.33	0.8	4471257	96.98	70	120	

US EPA Tune Check Report



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	102289.08	9.05	8.90 - 9.10	
24	377647.50	24.05	23.90 - 24.10	
25	54774.58	25.00	24.90 - 25.10	
26	64057.15	26.00	25.90 - 26.10	
59	777757.55	59.05	58.90 - 59.10	
115	1641725.19	115.10	114.90 - 115.10	
206	452393.54	206.05	205.90 - 206.10	
207	396670.04	207.05	206.90 - 207.10	
208	985187.23	208.05	207.90 - 208.10	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
9	0.62	0.760	0.900	
24	0.61	0.720	0.900	
25	0.62	0.727	0.900	
26	0.62	0.727	0.900	
59	0.58	0.710	0.900	
115	0.52	0.679	0.900	
206	0.49	0.708	0.900	
207	0.50	0.700	0.900	
208	0.49	0.704	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	235
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.85 L/min	Dilution Gas	0.20 L/min
RF Power	1550 W	Option Gas	0.0 %	Auxiliary Gas	---
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.4 V	Deflect	14.0 V
Extract 2	-145.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-80 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V

US EPA Tune Check Report

He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	190 V		
QP Parameters					
Mass Gain	120	Axis Gain	0.9988	QP Bias	-3.0 V
Mass Offset	126	Axis Offset	0.10		
Hardware Settings					
Torch					
Torch H	-0.5 mm	Torch V	0.3 mm		
EM					
Discriminator	5.0 mV	Analog HV	1812 V	Pulse HV	1452 V

ICP-MS Calibration Standard Prep

Prepared: 03/08/21
Expires: 03/15/21
1% HNO3 / 1%HCl Prep: 02/24/21

Prepared By (Initials): WD
*The high point of the ICAL is used as a P/A tune

Calibration Standard 4*

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5000	m2meb662248-38392	04/11/21	50uL	100mL	1% HNO3 / 1%HCl	100 - 2500
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38390	04/11/21	50uL			2000 - 5000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38393	04/11/21	50uL			50 - 100

Calibration Standards 1,2,3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference to APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
ICP-MS Calib Standard 4	Texas Scientific	Standard 1	0.05 - 5.0	Prepared 03/08/21	03/15/21	50uL	50mL	1% HNO3 / 1%HCl	0.05 - 5.0
ICP-MS Calib Standard 4	Texas Scientific	Standard 2	0.05 - 5.0			500uL			0.5 - 50
ICP-MS Calib Standard 4	Texas Scientific	Standard 3	0.05 - 5 0			25mL			25 - 2500

ICP-MS Low Levels (LLICV)

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/L)	Reference to APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
LLICV 0.5ppb	Texas Scientific	Standard 2	0.5 - 50	Prepared 03/08/21	03/15/21	5mL	10mL	1% HNO3 / 1%HCl	0 25 - 25
LLICV 1 0ppb	Texas Scientific	Standard 2	0 5 - 50	Prepared 03/08/21	03/15/21	10mL	10mL	1% HNO3 / 1%HCl	0.5 - 50
LLICV 2.0ppb	Texas Scientific	Standard 3	25 - 2500	Prepared 03/08/21	03/15/21	400uL	10mL	1% HNO3 / 1%HCl	1 - 100
LLICV 4.0ppb	Texas Scientific	Standard 4	50 - 5000	Prepared 03/08/21	03/15/21	400uL	10mL	1% HNO3 / 1%HCl	2 - 200

ICP-MS ICV (SS)

Prepared: 03/08/21
Expires: 03/15/21
1% HNO3 / 1%HCl Prep: 02/24/21

Prepared By (Initials): WD

ICP-MS ICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-11-49481	05/14/21	25uL	50mL	1% HNO3 / 1%HCl	25 - 1125
QCS ICV Soln B	CPI	4400-070615RH01	2500	10062445-12-49482	05/14/21	25uL			1125

ICP-MS Interference Check Solution A

Prepared: 03/08/21
Expires: 03/15/21
1% HNO3 / 1%HCl Prep: 02/24/21

Prepared By (Initials): WD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc Range (ug/mL)
ICSA	Inorganic Ventures	6020ICS-0A-125mL	20 - 1000	P2-MEB676415-41221	02/16/23	1mL (DF2)	10mL	1% HNO3 / 1%HCl	2 - 100

ICP-MS Interference Check Solution AB

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc Range (ug/mL)
ICSA	Inorganic Ventures	6020ICS-0A-125mL	20 - 1000	P2-MEB676415-41221	02/16/23	1mL (DF2)	10mL	1% HNO3 / 1%HCl	2-100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-1-49725	07/13/22	100uL			1

ICP-MS Internal Standards

Prepared: 03/01/21
Expires: 05/30/21
1% HNO3 / 1%HCl Prep: 02/24/21

Prepared By (Initials): WD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Scandium	Inorganic Ventures	35-APPLTSP-ISMIX	100	220125110-51634	07/05/22	2.5mL	250mL	1% HNO3 / 1%HCL	1
Germanium			100						1
Indium			100						1
Terbium			100						1
Holmium			100						1
Triton X-100	VWR	VW3929-2	N/A	46223630	N/A	250uL			0.1% v/v

ICP-MS Agilent Tune

Prepared: 03/04/21
Expires: 05/06/21

Prepared By (Initials): JP

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc.(ug/L)
Tuning Solution, 5-25	o2si	160637-01-03	10	10070923-3-40879	05/06/21	20mL	200mL	DI Water	1

ICP-MS EPA Tune

Prepared: 02/17/21
Expires: 02/17/22
1% HNO3 / 1%HCl Prep: 02/24/21

Prepared By (Initials): WD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc (ug/L)
Beryllium	Inorganic Ventures	35-APPLTSP-TUNE	10	N2-MEB6700091-39416	07/25/22	500uL	50mL	1% HNO3 / 1%HCL	100
Magnesium									
Cobalt									
Indium									
Lead									

US EPA Tune Check Report

Operator Name	Chemist_Metals
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\210308A.b
Acq. Date-Time	03/08/21 10:07:48 AM
Report Comment	---
Instrument Name	G3281A JP12101628

[NoGas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		62637	626374.93			1.079	5.000
24		222747	2227465.03			0.518	5.000
25		32536	325359.52			0.868	5.000
26		38445	384452.43			0.726	5.000
59		432522	4325220.47			1.033	5.000
115		832996	8329958.35			1.160	5.000
206		226262	2262618.01			1.263	5.000
207		196547	1965465.49			1.315	5.000
208		484508	4845080.90			1.284	5.000

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
115	
206	
207	
208	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	62627	62553	61729	62644	63634
24	221103	222184	224045	223525	222876
25	32219	32789	32241	32756	32674
26	38241	38365	38250	38920	38451
59	425193	437406	433245	433004	433762
115	818857	833712	830817	835975	845619
206	222066	227422	225094	227033	229693
207	192588	197010	195985	197499	199650
208	473871	488338	484916	485932	489483

Integration Time [sec] 0.1

Resolution/Axis

Metals Digestion Worksheet

Method Name 200.8 11.2 Digestion **Prep Method** M2008 **Set** 210308A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-17-51633 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-18-51630
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 03/08/21 12:08:00 PM
Witnessed By	NA Date: 03/08/21 12:08:00 PM

Starting Temp:	SLOT 20 THERM:Excalibur 85C
Ending Temp:	SLOT 20 86C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	03/08/21 15:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	210308A Blk				50mL	25mL	03/08/21 12:08	equip: Modblock1
2	210308A LCS		200uL	1+2	50mL	25mL	03/08/21 12:08	equip: Modblock1
3	210308A LCSD		200uL	1+2	50mL	25mL	03/08/21 12:08	equip: Modblock1
4	BA27502	BA27502W09			50mL	25mL	03/08/21 12:08	equip: Modblock1
5	BA27504	BA27504W09			50mL	25mL	03/08/21 12:08	equip: Modblock1
6	BA27504 MS	BA27504W09	500uL	1+2	50mL	25mL	03/08/21 12:08	equip: Modblock1

Solvent and Lot#
1:1 HNO3 2-16-21
1:1 HCL 2-16-21
100mL vessel 01100000039

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	
Date	
Time	
Moved to	

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	03/08/21 12:04:39 PM

Reviewed By: **Date:**

200.8 Injection Log

Directory: K:\ICP-MS Megatron\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	08 Mar 2021	11:25	Calibration Blank 03/08/2021		210308A Red	1.
2	08 Mar 2021	11:36	Standard 1 03/08/2021		210308A Red	1.
3	08 Mar 2021	11:47	Standard 2 03/08/2021		210308A Red	1.
4	08 Mar 2021	11:58	Standard 3 03/08/2021		210308A Red	1.
5	08 Mar 2021	12:09	Standard 4 03/08/2021		210308A Red	1.
6	08 Mar 2021	12:19	ICV 03/08/2021		210308A Red	1.
7	08 Mar 2021	12:30	ICB 03/08/2021		210308A Red	1.
8	08 Mar 2021	12:40	0.5ppb LLICV 03/08/2021		210308A Red	1.
9	08 Mar 2021	12:51	1.0ppb LLICV 03/08/2021		210308A Red	1.
10	08 Mar 2021	13:01	2.0ppb LLICV 03/08/2021		210308A Red	1.
11	08 Mar 2021	13:12	4.0ppb LLICV 03/08/2021		210308A Red	1.
12	08 Mar 2021	13:22	20ppb LLICV 03/08/2021		210308A Red	1.
13	08 Mar 2021	13:33	ICSA 03/08/2021		210308A Red	1.
14	08 Mar 2021	13:43	ICSAB 03/08/2021		210308A Red	1.
15	08 Mar 2021	16:39	CCV 210308		210308A Red	1.
16	08 Mar 2021	16:50	CCB 210308		210308A Red	1.
17	08 Mar 2021	17:00	210308A BLK DF2		210308A Red	2.
18	08 Mar 2021	17:21	210308A LCS DF2		210308A Red	2.
19	08 Mar 2021	17:42	210308A LCSD DF2		210308A Red	2.
20	08 Mar 2021	18:33	BA27502W09 DF2		210308A Red	2.
21	08 Mar 2021	18:44	BA27504W09 DF2		210308A Red	2.
22	08 Mar 2021	18:54	BA27504W09 MS DF2		210308A Red	2.
23	08 Mar 2021	19:25	BA27504W09-A-DF2		210308A Red	2.
24	08 Mar 2021	19:36	BA27504W09 DT DF10		210308A Red	10.
25	08 Mar 2021	19:46	CCV 210308		210308A Red	1.
26	08 Mar 2021	20:14	CCB 210308		210308A Red	1.

INORGANIC ANALYSIS
Calibration and Raw Data

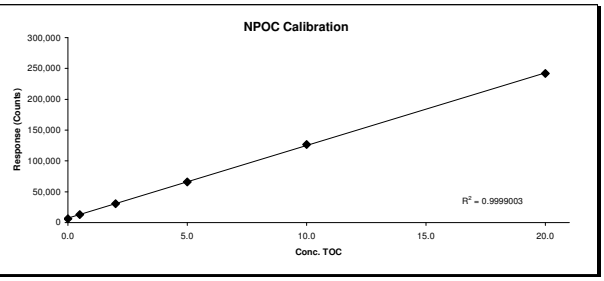
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 210301A

Analyist: AAR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
06/11/20	0:01	QC blank	0.00	6172	
06/11/20	0:41	Ical 1	0.50	13120	
06/11/20	1:19	Ical 2	2.00	30622	
06/11/20	1:58	Ical 3	5.00	66151	
06/11/20	2:37	Ical 4	10.00	126505	
06/11/20	3:16	Ical 5	20.00	241922	
06/11/20	18:06	ICB	0.00	6336	
06/11/20	18:46	ICV	4.99	65817	99.8%



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2021-03-02	01:10 PM	CCV	1	60812	40mL	0.000	5.033	5.03	0.30	5.00	100.7%
2021-03-02	01:51 PM	CCB	1	1338	40mL	0.000	0	0.00	0.00		
2021-03-02	02:29 PM	210301A BLK	1	2587	40mL	0.091	0.091	0.00	0.01		
2021-03-02	03:09 PM	210301A LCS	1	63656	40mL	0.091	5.274	5.18	0.05	5.00	103.7%
2021-03-02	03:50 PM	210301A LCSD	1	64957	40mL	0.091	5.385	5.29	0.75	5.00	105.9%
2021-03-02	04:30 PM	BA27502W04	1	15331	40mL	0.091	1.158	1.07	0.62		
2021-03-02	05:07 PM	BA27504W04	1	5796	40mL	0.091	0.348	0.26	0.00		
2021-03-02	05:43 PM	BA27504W04 DUP	1	5691	40mL	0.091	0.34	0.25	0.01		
2021-03-02	06:19 PM	CCV	1	59824	40mL	0.000	4.949	4.95	0.33	5.00	99.0%
2021-03-02	06:59 PM	CCB	1	1319	40mL	0.000	0	0.00	0.00		

Name of Final Standard TOC Calibration Curve
Prep Date 06/11/20
Exp Date 06/11/21
Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	250 uL	40 mL	DI Water	5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	500 uL	40 mL	DI Water	10 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	1000 uL	40 mL	DI Water	20 ppm

Name of Final Standard ICV (TOC)
Prep Date 06/11/20
Exp Date 06/11/21
Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	6465171-49409	06/30/21	500 uL	40mL	DI Water	10 ppm

Name of Final Standard CCV (TOC)
Prep Date See Data
Exp Date 1 year
Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	6465171-49409	06/30/21	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard TOC LCS/LCSD
Prep Date See Data
Exp Date 1 year
Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	6465171-49409	06/30/21	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard TOC MS/MSD
Prep Date See Data
Exp Date 1 year
Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	6465171-49409	06/30/21	200 uL	40 mL	sample	5 ppm